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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,  
CANBERRA.

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OFFICIAL

# YEAR BOOK

OF THE

## COMMONWEALTH OF AUSTRALIA

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No. 26.—1933.

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Prepared under Instructions from  
The Honorable the Treasurer,

BY

E. T. MCPHEE,  
COMMONWEALTH STATISTICIAN.

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## PREFACE.

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By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered "to make laws for the peace, order, and good government of the Commonwealth, with respect to Census and Statistics." In the exercise of the power so conferred, a "Census and Statistics Act" was passed in 1905, and in the year following, the "Commonwealth Bureau of Census and Statistics" was created. The first Official Year Book was published early in 1908. The publication here presented is the twenty-sixth Official Year Book issued under the authority of the Commonwealth Government.

The synopsis on pp. ix to xxii immediately following shows the general arrangement of the work. The special index (following the usual general index) provided at the end of the volume, together with certain references given in the various Chapters, will assist in tracing in previous issues matter which, owing to limitations of space, has been omitted or is not printed fully in the present volume.

Economic and financial conditions during recent years have caused a demand for new information, or information expressed in new terms, concerning many matters of finance, trade, production and industry. The need for economy hampers the collection of this material, and the need for abbreviation precludes adequate presentation of some that is available. The editing of the Year Book has, therefore, become particularly difficult, involving as it does the continual balancing of the claims of old material and new. Some progress has been made in the later volumes towards bringing closer to present day requirements the Chapters dealing with production, trade, finance, population and vital statistics, etc., while the Appendix furnishes a summary, brought up to the latest available date, of the chief events in connexion with the financial crisis. It is not proposed to refer here to the whole of the new matter or to the new treatment of existing matter, incorporated in the present volume, but attention may be drawn to the following :—

- Chapter VI. Trade—Balance of Payments (Appendix).
- Chapter XIV. Public Finance—State Net Loan Expenditure as defined in the Financial Agreement Act (p. 421).
- Chapter XV. Private Finance—Private Wealth of Australia (p. 471).
- Chapter XVII. Pastoral Production—Inquiry into Wool Industry (p. 558).
- Chapter XXV. Population—Incorporation of available details of Census of 1933.

Later information which has come to hand since the various Chapters were sent to press has been incorporated in the Appendix (pp. 867 to 903).

The material contained in each issue is always carefully examined, but it would be idle to hope that all error has been avoided. I shall be grateful to those who will be kind enough to point out defects or make suggestions.

My best thanks are due to the State Statisticians, who have collected and compiled the data on which the greater part of the information given in the Year Book is based. Thanks are also due to the responsible officers of the various Commonwealth and State Departments, and to others, who have kindly, and often at considerable trouble, supplied information.

My special thanks are due to Dr. Roland Wilson for the contribution of his very exhaustive statement of matters affecting the "balance of payments" for Australia.

Publication of the present volume has been held back in order to permit of the incorporation of available information in regard to population obtained at the Census of 1933. Intercensal estimates of population for the States and for Australia have been amended in accordance with the Census results.

I wish to express my keen appreciation of the valuable work performed by Mr. J. Stonham, M.A., the Editor of the Year Book, and of the services rendered by the officers in charge of the various branches of the Commonwealth Bureau of Census and Statistics, upon whom has devolved the duty of revising the Chapters relative to their respective branches.

E. T. MCPHEE,  
Commonwealth Statistician.

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,  
*Canberra, February, 1934.*

*CORRIGENDA.*

OVERSEA MIGRATION—AUSTRALIA, page 779.

The figures for departures in the table on page 779 should read as follows in respect to the periods indicated hereunder :

Period.	Departures.		
	Males.	Females.	Persons.
1921-25 .. ..	171,974	122,535	294,509
1921 .. ..	44,876	25,487	70,363
1922 .. ..	30,935	22,369	53,304
1928 .. ..	39,302	30,362	69,664

# CONTENTS.

CHAPTER.	SUBJECT.	PAGE.
	STATISTICAL SUMMARY, 1871-1932 .. .. .	xxiii
	CHRONOLOGICAL TABLE OF CHIEF EVENTS .. .. .	xxv
I.	DISCOVERY, COLONIZATION, AND FEDERATION OF AUSTRALIA .. .. .	1
II.	PHYSIOGRAPHY .. .. .	33
III.	GENERAL GOVERNMENT .. .. .	62
IV.	LOCAL GOVERNMENT.. .. .	80
V.	LAND TENURE AND SETTLEMENT .. .. .	112
VI.	TRANSPORT AND COMMUNICATION .. .. .	140
VII.	TRADE .. .. .	220
VIII.	EDUCATION .. .. .	270
IX.	PUBLIC JUSTICE .. .. .	285
X.	PUBLIC BENEVOLENCE .. .. .	301
XI.	PUBLIC HYGIENE .. .. .	311
XII.	DEFENCE .. .. .	322
XIII.	THE TERRITORIES OF THE COMMONWEALTH .. .. .	336
XIV.	PUBLIC FINANCE .. .. .	368
XV.	PRIVATE FINANCE .. .. .	435
XVI.	MINERAL INDUSTRY .. .. .	495
XVII.	PASTORAL PRODUCTION .. .. .	532
XVIII.	AGRICULTURAL PRODUCTION .. .. .	561
XIX.	FARMYARD, DAIRY, AND BEE PRODUCTS .. .. .	616
XX.	FORESTRY .. .. .	629
XXI.	FISHERIES .. .. .	642
XXII.	MANUFACTURING INDUSTRY .. .. .	648
XXIII.	WATER CONSERVATION AND IRRIGATION .. .. .	698
XXIV.	LABOUR, WAGES AND PRICES .. .. .	703
XXV.	POPULATION .. .. .	753
XXVI.	VITAL STATISTICS .. .. .	789
XXVII.	MISCELLANEOUS .. .. .	849
XXVIII.	STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION .. .. .	862
	APPENDIX .. .. .	867
	GENERAL INDEX .. .. .	905
	INDEX TO MAPS, GRAPHS, ETC. .. .. .	937
	INDEX TO SPECIAL ARTICLES, ETC., WHICH APPEARED IN PREVIOUS ISSUES .. .. .	939

# SYNOPSIS.

## CHAPTER I.—DISCOVERY, COLONIZATION, AND FEDERATION OF AUSTRALIA.

	PAGE		PAGE
§ 1. General .. .. .	1	§ 2. Establishment of the Commonwealth of Australia— <i>continued.</i>	
		4. Transfer of British New Guinea or Papua .. .. .	2
§ 2. Establishment of the Commonwealth of Australia—		5. Transfer of Norfolk Island .. .. .	2
1. General .. .. .	1	§ 3. The Exploration of Australia .. .. .	2
2. Transfer of the Northern Territory to the Commonwealth .. .. .	1	§ 4. The Constitutions of the States and of the Commonwealth—	
3. Transfer of the Federal Capital Territory to the Commonwealth .. .. .	2	1. General .. .. .	2
		2. Commonwealth Constitution Act .. .. .	2
		3. The Royal Proclamation .. .. .	20
		4. Financial Agreement, 1928 .. .. .	21

## CHAPTER II.—PHYSIOGRAPHY.

§ 1. General Description of Australia—		§ 2. Climate and Meteorology of Australia— <i>continued.</i>	
1. Geographical Position .. .. .	33	7. Evaporation .. .. .	38
2. Area of Australia compared with Areas of Other Countries .. .. .	33	8. Rainfall .. .. .	39
3. Areas of Political Subdivisions .. .. .	35	9. Remarkable Falls of Rain .. .. .	42
4. Coastal Configuration .. .. .	35	10. Snowfall .. .. .	44
5. Geographical Features .. .. .	36	11. Hall .. .. .	51
6. Fauna, Flora, etc. .. .. .	36	12. Barometric Pressures .. .. .	51
§ 2. Climate and Meteorology of Australia—		13. Wind .. .. .	51
1. Introductory .. .. .	36	14. Cyclones and Storms .. .. .	51
2. Meteorological Publications .. .. .	36	15. Influences affecting Australian Climate .. .. .	52
3. General Description of Australia .. .. .	36	16. Rainfall and Temperatures, Various Cities .. .. .	52
4. Meteorological Divisions .. .. .	36	17. Climatological Tables .. .. .	53
5. Temperatures .. .. .	37		
6. Humidity .. .. .	38		

## CHAPTER III.—GENERAL GOVERNMENT.

§ 1. Scheme of Parliamentary Government—		§ 2. Parliaments and Elections— <i>continued.</i>	
1. General .. .. .	62	6. The Parliament of Victoria .. .. .	67
2. Powers and Functions of the Governor-General and of the State Governors .. .. .	62	7. The Parliament of Queensland .. .. .	68
3. Governor-General and State Governors .. .. .	62	8. The Parliament of South Australia .. .. .	69
4. The Cabinet and Executive Government .. .. .	62	9. The Parliament of Western Australia .. .. .	69
5. Number and Salary of Members of the Legislatures .. .. .	64	10. The Parliament of Tasmania .. .. .	70
6. Enactments of the Parliament .. .. .	64	§ 3. Administration and Legislation—	
§ 2. Parliaments and Elections—		1. The Commonwealth Parliaments .. .. .	71
1. Qualifications for Membership and for Franchise .. .. .	64	2. Governors-General and Ministers .. .. .	72
2. The Federal Government .. .. .	65	3. State Ministries .. .. .	73
3. Federal Elections .. .. .	65	4. The Course of Legislation .. .. .	74
4. Federal Referenda .. .. .	66	5. Legislation during the current year .. .. .	74
5. The Parliament of New South Wales .. .. .	66	§ 4. Cost of Parliamentary Government .. .. .	75
		§ 5. Strength of the Civil Service .. .. .	77
		§ 6. Cost per Head of Population of Principal State Government Services .. .. .	77
		§ 7. Consular Representatives of Foreign Countries in Australia .. .. .	79

## CHAPTER IV.—LOCAL GOVERNMENT.

§ 1. Introduction—		§ 4. Summary of Local Government Finance—	
1. General .. .. .	80	1. General .. .. .	94
2. Municipalities, Shires, etc. .. .. .	80	2. Number, Revenue, Expenditure and Valuation of Local Authorities .. .. .	95
3. Water Supply and Sewerage .. .. .	80	3. Local Government Loans .. .. .	96
4. Harbours .. .. .	80	§ 5. Water Supply, Sewerage and Drainage—	
5. Fire Brigades .. .. .	80	1. New South Wales .. .. .	96
§ 2. Government Roads, Bridges, etc.—		2. Victoria .. .. .	99
1. New South Wales .. .. .	80	3. Queensland .. .. .	102
2. Victoria .. .. .	81	4. South Australia .. .. .	103
3. Queensland .. .. .	81	5. Western Australia .. .. .	105
4. South Australia .. .. .	82	6. Tasmania .. .. .	106
5. Western Australia .. .. .	83	§ 6. Harbour Boards and Trusts—	
6. Tasmania .. .. .	83	1. New South Wales .. .. .	106
7. Summary of Net Loan Expenditure on Roads and Bridges .. .. .	83	2. Victoria .. .. .	107
§ 3. Municipalities, Shires, etc.—		3. Queensland .. .. .	107
1. New South Wales .. .. .	84	4. Western Australia .. .. .	108
2. Victoria .. .. .	88	5. Tasmania .. .. .	109
3. Queensland .. .. .	89	§ 7. Fire Brigades—	
4. South Australia .. .. .	90	1. New South Wales .. .. .	110
5. Western Australia .. .. .	91	2. Victoria .. .. .	110
6. Tasmania .. .. .	93	3. Queensland .. .. .	111
7. Basis for Municipal Rating, etc. .. .. .	94	4. South Australia .. .. .	111
		5. Western Australia .. .. .	111
		6. Tasmania .. .. .	111

CHAPTER V.—LAND TENURE AND SETTLEMENT.

	PAGE		PAGE
<b>§ 1. Introduction—</b>		<b>§ 7. Leases and Licences under Mining Acts—</b>	
1. General .. .. .	112	1. General .. .. .	126
2. State Land Legislation .. .. .	112	2. New South Wales .. .. .	126
3. Northern Territory Land Legislation .. .. .	113	3. Victoria .. .. .	126
4. Federal Capital Territory Land Legislation .. .. .	113	4. Queensland .. .. .	127
5. Administration and Classification of Crown Lands .. .. .	114	5. South Australia .. .. .	127
6. Classification of Tenures .. .. .	114	6. Western Australia .. .. .	127
<b>§ 2. Free Grants and Reservations—</b>		7. Tasmania .. .. .	128
1. New South Wales .. .. .	117	8. Northern Territory .. .. .	128
2. Victoria .. .. .	117	9. Summary .. .. .	128
3. Queensland .. .. .	117	<b>§ 8. Settlement of Returned Soldiers and Sailors—</b>	
4. South Australia .. .. .	118	1. General .. .. .	129
5. Western Australia .. .. .	118	2. New South Wales .. .. .	129
6. Tasmania .. .. .	118	3. Victoria .. .. .	129
7. Northern Territory .. .. .	118	4. Queensland .. .. .	129
<b>§ 3. Unconditional Purchases of Freehold—</b>		5. South Australia .. .. .	129
1. New South Wales .. .. .	119	6. Western Australia .. .. .	129
2. Victoria .. .. .	119	7. Tasmania .. .. .	129
3. Queensland .. .. .	119	8. Summary .. .. .	130
4. South Australia .. .. .	120	<b>§ 9. Tenure of Land by Aliens</b> .. .. .	130
5. Western Australia .. .. .	120	<b>§ 10. Advances to Settlers—</b>	
6. Tasmania .. .. .	120	1. General .. .. .	130
<b>§ 4. Conditional Purchases of Freehold—</b>		2. New South Wales .. .. .	130
1. General .. .. .	120	3. Victoria .. .. .	131
2. New South Wales .. .. .	120	4. Queensland .. .. .	131
3. Victoria .. .. .	121	5. South Australia .. .. .	131
4. Queensland .. .. .	121	6. Western Australia .. .. .	132
5. South Australia .. .. .	121	7. Tasmania .. .. .	132
6. Western Australia .. .. .	121	8. Northern Territory .. .. .	132
7. Tasmania .. .. .	121	9. Summary of Advances .. .. .	132
<b>§ 5. Leases and Licences under Land Acts—</b>		<b>§ 11. Alienation and Occupation of Crown Lands—</b>	
1. General .. .. .	121	1. General .. .. .	133
2. New South Wales .. .. .	121	2. New South Wales .. .. .	133
3. Victoria .. .. .	122	3. Victoria .. .. .	133
4. Queensland .. .. .	122	4. Queensland .. .. .	134
5. South Australia .. .. .	123	5. South Australia .. .. .	134
6. Western Australia .. .. .	123	6. Western Australia .. .. .	135
7. Tasmania .. .. .	123	7. Tasmania .. .. .	135
8. Northern Territory .. .. .	123	8. Northern Territory .. .. .	136
9. Federal Capital Territory .. .. .	123	9. Federal Capital Territory .. .. .	136
<b>§ 6. Closer Settlement—</b>		<b>§ 12. Classification of Alienated Holdings According to Size</b> .. .. .	137
1. General .. .. .	124	<b>§ 13. Present Position of Land Settlement—</b>	
2. New South Wales .. .. .	124	1. Condition of Public Estate .. .. .	137
3. Victoria .. .. .	125	2. Diagram showing Condition of Public Estate .. .. .	139
4. Queensland .. .. .	125		
5. South Australia .. .. .	125		
6. Western Australia .. .. .	125		
7. Tasmania .. .. .	126		
8. Summary .. .. .	126		

CHAPTER VI.—TRANSPORT AND COMMUNICATION.

A. SHIPPING.

<b>§ 1. System of Record</b> .. .. .	140
<b>§ 2. Oversea Shipping—</b>	
1. Total Movement .. .. .	140
2. Shipping Communication with Various Countries .. .. .	140
3. Nationality of Oversea Shipping .. .. .	142
<b>§ 3. Shipping of Ports</b> .. .. .	143
<b>§ 4. Vessels Built and Registered—</b>	
1. Vessels Built .. .. .	143
2. Vessels Registered .. .. .	144
<b>§ 5. Interstate Shipping—</b>	
1. System of Record .. .. .	144
2. Vessels and Tonnage Entered .. .. .	146
3. Oversea Vessels Moving Interstate .. .. .	146
4. Vessels engaged Solely in Interstate Trade .. .. .	147
5. Total Interstate Movement of Shipping .. .. .	147
6. Interstate and Coastal Services .. .. .	148
<b>§ 6. Tonnage of Cargo—</b>	
1. Oversea and Interstate Cargo .. .. .	148
2. Nationality .. .. .	148
<b>§ 7. Miscellaneous—</b>	
1. Lighthouses .. .. .	149
2. Distances by Sea .. .. .	149
3. Shipping Freight Rates .. .. .	149
4. Depth of Water at Main Ports .. .. .	149

A. SHIPPING—continued.

<b>§ 7. Miscellaneous—continued.</b>	
5. Shipping Casualties .. .. .	149
6. Commonwealth Navigation and Shipping Legislation .. .. .	150
7. Ports and Harbours .. .. .	150

B. RAILWAYS.

<b>§ 1. General—</b>	
1. Introduction .. .. .	150
2. Improvement of Railway Statistics .. .. .	150
3. Railway Communication in Australia .. .. .	150
4. Grafton—South Brisbane (Uniform Gauge) Line .. .. .	150
5. Mileage Open for Traffic, all Lines .. .. .	151
6. Comparative Railway Facilities .. .. .	152
7. Classification of Lines According to Gauge .. .. .	152
8. Summary of Operations .. .. .	154
9. Track Mileage—Government Railways .. .. .	154
<b>§ 2. Federal Railways—</b>	
1. General .. .. .	154
2. North Australia Railway .. .. .	154
3. Central Australia Railway .. .. .	155
4. Federal Capital Territory Railway—Queanbeyan—Canberra .. .. .	155



CHAPTER VI.—TRANSPORT AND COMMUNICATION—*continued.*

	PAGE		PAGE
<b>B. RAILWAYS—<i>continued.</i></b>		<b>D. AIRCRAFT—<i>continued.</i></b>	
§ 2. Federal Railways— <i>continued.</i>		4. Air Survey .. .. .	193
5. Trans-Australian Railway (Kalgoorlie to Port Augusta) .. .	155	5. Aircraft Construction .. .	193
6. Lines Open, Surveyed, etc. .. .	156	6. Training of Air Pilots .. .	193
7. Mileage Open, Worked, and Train-miles run .. .	156	7. Notable Flights .. .	193
8. Cost of Construction and Equipment	157	8. Statistical Summary .. .	194
9. Gross Revenue .. .	158	9. New Guinea Activities .. .	195
10. Working Expenses .. .	158	<b>E. MOTOR VEHICLES.</b>	
11. Passenger Journeys and Tonnage of Goods and Live Stock .. .	160	1. The Motor Car and Motor Industry	195
12. Rolling Stock .. .	161	2. Registration .. .	196
13. Employees .. .	161	3. Public Vehicles .. .	196
14. Accidents .. .	161	4. Motor Omnibuses .. .	196
§ 3. State Railways—		5. Motor Vehicles Registered, etc. ..	197
1. Administration and Control of State Railways .. .	162	6. Comparative Motor Vehicle Statistics .. .	198
2. Mileage Open .. .	162	<b>F. POSTS, TELEGRAPHS AND TELEPHONES.</b>	
3. Length and Gauge of Railway Systems in Each State .. .	167	§ 1. General—	
4. Average Mileage Worked and Train-miles Run .. .	167	1. The Commonwealth Postal Department .. .	199
5. Lines under Construction and Lines Authorized .. .	167	2. Postal Facilities .. .	199
6. Cost of Construction and Equipment	169	3. Gross Revenue, Postmaster-General's Department .. .	200
7. Gross Revenue .. .	171	4. Expenditure, Postmaster-General's Department .. .	201
8. Working Expenses .. .	173	5. Profit or Loss, Postmaster-General's Department .. .	201
9. Salaries and Wages .. .	175	6. Capital Account .. .	202
10. Net Revenue .. .	176	§ 2. Posts—	
11. Interest .. .	177	1. Postal Matter Dealt With .. .	203
12. Profit or Loss .. .	177	2. Value-payable Parcel and Letter Post .. .	204
13. Traffic .. .	178	3. Sea-borne Mail Services .. .	205
14. Passenger-mileage and Ton-mileage	181	4. Total Cost of Carriage of Mails ..	205
15. Passenger Fares and Goods Rates ..	183	5. Transactions of the Dead Letter Offices .. .	206
16. Rolling Stock .. .	183	6. Money Orders and Postal Notes ..	206
17. Employees .. .	183	§ 3. Telegraphs—	
18. Accidents .. .	184	1. General .. .	208
19. Consumption of Oil and Fuel .. .	184	2. Telegraph Offices, Length of Lines and Wire .. .	209
§ 4. Private Railways—		3. Number of Telegrams Dispatched	210
1. Total Mileage Open .. .	185	4. Letter-telegrams .. .	210
2. Lines Open for General Traffic .. .	185	5. Revenue and Expenditure .. .	210
<b>C. TRAMWAYS.</b>		6. Telegraph Density .. .	211
1. Systems in Operation .. .	185	§ 4. Overseas Cable and Radio Communication—	
2. New South Wales .. .	187	1. First Cable Communication with the Old World .. .	211
3. Victoria .. .	188	2. General Cable Services .. .	211
4. Queensland .. .	188	3. Merging of Cable and Wireless Interests .. .	211
5. South Australia .. .	189	4. Overseas Cable and Radio Business	211
6. Western Australia .. .	189	5. Cable and Radio (Beam) Rates .. .	212
7. Tasmania .. .	190	§ 5. Telephones—	
8. Australia .. .	191	1. Telephone Services .. .	213
<b>D. AIRCRAFT.</b>		2. Revenue from Telephones .. .	216
1. Historical .. .	191	§ 6. Radio Telegraphy and Telephony ..	216
2. Foundation of Civil Aviation Department .. .	191		
3. Activities of Civil Aviation Department .. .	191		

## CHAPTER VII.—TRADE.

§ 1. Introductory—		§ 3. Trade Representatives—	
Constitutional Powers of the Commonwealth in regard to Commerce	220	1. Oversea .. .	228
§ 2. Commonwealth Legislation Affecting Oversea Trade—		2. In Australia .. .	229
1. General .. .	220	§ 4. Method of Recording Imports and Exports—	
2. Customs Tariff 1921-1931 and Tariff Proposals 1932-1933 .. .	220	1. Value of Imports .. .	229
3. Primage Duty .. .	222	2. Value of Exports .. .	229
4. Preferential Tariff .. .	222	3. Customs Area .. .	230
5. Reciprocal Tariffs .. .	224	4. Statistical Classification of Imports and Exports .. .	230
6. Preferential Tariff of the United Kingdom .. .	225	5. The Trade Year .. .	230
7. Tariff Board Act .. .	226	6. Records of Past Years .. .	230
8. Customs Tariff (Industries Preservation) Act .. .	227	7. Ships' Stores .. .	230
9. Commerce (Trade Descriptions) Act ..	227	§ 5. Oversea Trade—	
10. Acts passed in 1931 .. .	227	1. Total Oversea Trade .. .	231
11. Acts passed in 1932 .. .	228	2. Balance of Trade .. .	233
		3. Balance of Payments .. .	234

CHAPTER VII.—TRADE—*continued.*

	PAGE		PAGE
§ 6. Direction of Oversea Trade—		§ 8. Classified Summary of Australian Oversea Trade— <i>continued.</i>	
1. Imports according to Country of Origin .. .. .	235	6. Exports of Merchandise, Specie, and Bullion .. .. .	256
2. Percentage of Imports from Various Countries .. .. .	235	7. Imports in Tariff Divisions .. .. .	256
3. Direction of Exports .. .. .	237	8. Imports and Net Customs Revenue .. .. .	258
4. Percentage of Exports to Various Countries .. .. .	238	§ 9. Ships' Stores .. .. .	258
5. Balance of Trade with Principal Countries .. .. .	239	§ 10. Movement of Specie and Bullion—	
6. Principal Imports and Exports—Countries .. .. .	240	1. Imports and Exports .. .. .	259
7. Imports—States .. .. .	244	2. Imports and Exports by Countries .. .. .	260
8. Exports—States .. .. .	244	§ 11. Exports According to Industries—	
9. Trade of Principal Ports .. .. .	245	1. Classification .. .. .	260
§ 7. Trade with Eastern Countries—		2. Relative Importance of Industrial Groups .. .. .	261
1. Principal Articles Exported .. .. .	246	3. Australian Production and Exports according to Industry .. .. .	261
2. Destination of Exports of Merchandise .. .. .	246	§ 12. External Trade of Australia and Other Countries—	
3. Imports of Merchandise from Eastern Countries .. .. .	251	1. Essentials of Comparisons .. .. .	262
§ 8. Classified Summary of Australian Oversea Trade—		2. "Special Trade" of Various Countries .. .. .	262
1. Imports .. .. .	251	§ 13. Trade of the United Kingdom with Australia compared with that of Competing Countries .. .. .	263
2. Exports .. .. .	252	§ 14. Oversea Trade in Calendar Years .. .. .	267
3. Imports of Principal Articles .. .. .	254	§ 15. Excise .. .. .	268
4. Exports of Principal Articles of Australian Produce .. .. .	255	§ 16. Interstate Trade .. .. .	269
5. Imports of Merchandise, Specie, and Bullion .. .. .	256		

## CHAPTER VIII.—EDUCATION.

§ 1. Evolution of Educational Systems in Australia—		§ 5. Universities—	
1. Educational Systems of the States .. 270		1. Origin and Development .. .. .	277
2. Later Development in State Educational Systems .. .. .	270	2. Teachers and Students .. .. .	277
3. Australian Council for Educational Research .. .. .	270	3. University Revenue .. .. .	278
4. Imperial Educational Conference .. 270		4. University Expenditure .. .. .	279
§ 2. State Schools—		5. University Extension .. .. .	279
1. General .. .. .	271	6. The Canberra University College .. 279	
2. Returns for Year .. .. .	271	7. Workers' Educational Association .. 279	
3. Increase in Average Attendance .. 272		§ 6. Technical Education—	
4. Distribution of Educational Facilities .. .. .	272	1. General .. .. .	280
5. Teachers .. .. .	273	2. Returns for Year 1931 .. .. .	280
6. Training Colleges .. .. .	273	3. Expenditure on Technical Education .. 280	
7. Expenditure .. .. .	273	§ 7. Business Colleges and Shorthand Schools .. 281	
8. School Savings Banks .. .. .	275	§ 8. Diffusion of Education—	
§ 3. Private Schools—		1. General Education .. .. .	281
1. Returns for Year .. .. .	276	2. Education as shown by Marriage Registers .. .. .	281
2. Growth of Private Schools .. .. .	276	§ 9. Miscellaneous—	
3. Registration of Private Schools .. 276		1. Scientific Societies .. .. .	281
§ 4. Free Kindergartens .. .. .	277	2. Public Libraries .. .. .	282
		3. Public Museums and Art Galleries .. 284	
		4. State Expenditure on Education, Science and Art .. .. .	284

## CHAPTER IX.—PUBLIC JUSTICE.

§ 1. Police—		§ 4. Prisons—	
1. General .. .. .	285	1. Prison Accommodation and Prisoners .. .. .	294
2. Strength of Police Force .. .. .	285	2. Prisoners in Gaol .. .. .	295
3. Duties of the Police .. .. .	286	3. Improvement in Prison Methods .. 295	
4. Cost of Police Forces .. .. .	286	§ 5. Civil Courts—	
5. Interstate Police Conferences .. .. 286		1. Lower Courts .. .. .	296
§ 2. Lower (Magistrates') Courts—		2. Superior Courts .. .. .	296
1. General .. .. .	287	3. Divorces and Judicial Separations .. 297	
2. Powers of the Magistrates .. .. .	287	4. Probates .. .. .	297
3. Persons Charged at Magistrates' Courts .. .. .	287	5. Bankruptcies .. .. .	297
4. Convictions and Commitals .. .. .	287	6. High Court of Australia .. .. .	298
5. Convictions for Serious Crime .. .. 288		7. Commonwealth Court of Conciliation and Arbitration .. .. .	299
6. Decrease in Serious Crime .. .. .	289	§ 6. Cost of Administration of Justice—	
7. Drunkenness .. .. .	289	1. Expenditure by the States .. .. .	299
8. First Offenders .. .. .	291	2. Federal Expenditure .. .. .	300
9. Children's Courts .. .. .	291		
10. Commitals to Superior Courts .. .. 291			
§ 3. Superior Courts—			
1. Convictions at Superior Courts .. 293			
2. Offences for which Convictions were Recorded at Superior Courts .. .. .	293		
3. Habitual Offenders .. .. .	294		
4. Capital Punishment .. .. .	294		

## CHAPTER X.—PUBLIC BENEVOLENCE.

	PAGE		PAGE
§ 1. Introductory .. ..	301	§ 2. The Larger Charities of Australia— <i>continued.</i>	
§ 2. The Larger Charities of Australia—		6. Care of the Feeble-minded ..	309
1. Public Hospitals (other than Hospitals for the Insane) ..	301	7. Protection of Aborigines ..	309
2. Benevolent and Destitute Asylums ..	303	8. Royal Life Saving Society ..	309
3. Orphanages, Industrial Schools, etc. ..	304	9. Royal Humane Society ..	309
4. Leper Hospitals ..	305	10. Other Charitable Institutions ..	310
5. Hospitals for the Insane ..	305	11. Total Expenditure on Charities ..	310

## CHAPTER XI.—PUBLIC HYGIENE.

§ 1. Public Health Legislation and Administration .. ..	311	§ 5. Tropical Diseases— <i>continued.</i>	
§ 2. Inspection and Sale of Food and Drugs .. ..	311	3. Control of Introduced Malaria and Bilharziasis .. ..	315
§ 3. Supervision of Dairies, Milk Supply, Etc.—		4. Hookworm .. ..	315
1. General .. ..	311	5. Australian Institute of Tropical Medicine .. ..	315
2. Number of Dairy Premises Registered ..	311	6. School of Public Health and Tropical Medicine, Sydney University ..	315
§ 4. Prevention and Control of Infectious and Contagious Diseases—		7. Royal Commission on National Health, etc. .. ..	315
1. General .. ..	311	§ 6. Organization for the Control of Cancer ..	315
2. Quarantine .. ..	311	§ 7. Medical Inspection of School Children—	
3. Notifiable Diseases—		1. General .. ..	316
A. General .. ..	312	2. New South Wales .. ..	316
B. Venereal Diseases .. ..	313	3. Victoria .. ..	317
4. Vaccination .. ..	313	4. Queensland .. ..	318
5. Commonwealth Serum Laboratories ..	313	5. South Australia .. ..	319
6. Health Laboratories .. ..	314	6. Western Australia .. ..	319
7. Industrial Hygiene .. ..	314	7. Tasmania .. ..	319
8. Veterinary Hygiene and Plant Quarantine .. ..	314	8. Federal Capital Territory .. ..	320
§ 5. Tropical Diseases—		§ 8. Supervision and Care of Infant Life—	
1. General .. ..	314	1. General .. ..	320
2. Transmission of Disease by Mosquitoes .. ..	315	2. Government Activities .. ..	321
		3. Nursing Activities .. ..	321

## CHAPTER XII.—DEFENCE.

§ 1. Military Defence—		§ 6. Remount Depot .. ..	330
1. State Systems .. ..	322	§ 7. Australian Contingents—	
2. Commonwealth System .. ..	322	1. General .. ..	330
§ 2. Naval Defence—		2. Australian Troops (Great War) ..	330
1. State Systems .. ..	326	§ 8. War Gratuity .. ..	330
2. The Present System .. ..	326	§ 9. Special Defence Legislation .. ..	330
§ 3. Air Defence—		§ 10. Repatriation—	
1. General .. ..	328	1. General .. ..	330
2. Establishment .. ..	328	2. War Pensions .. ..	331
3. Aerial Routes .. ..	328	3. Summary of Other Activities ..	332
4. Civil Aviation .. ..	328	4. Expenditure of Department of Repatriation .. ..	333
§ 4. Expenditure on Defence .. ..	328	5. Settlement of Soldiers on the Land ..	333
§ 5. Munitions Supply—		6. Conspectus of State Laws affecting Settlement of Returned Soldiers on the Land .. ..	335
1. General .. ..	329	§ 11. War Service Homes .. ..	335
2. Factories .. ..	329		

## CHAPTER XIII.—THE TERRITORIES OF THE COMMONWEALTH.

GENERAL .. ..	336	THE NORTHERN TERRITORY— <i>continued.</i>	
THE NORTHERN TERRITORY.		§ 5. Production—	
§ 1. Area and Population—		1. Holdings .. ..	338
1. Introductory .. ..	336	2. Agriculture .. ..	338
2. Population .. ..	336	3. Pastoral Industry .. ..	338
§ 2. Legislation and Administration .. ..	337	4. Mining .. ..	339
§ 3. Physiography—		5. Pearl, Bêche-de-mer and Other Fisheries .. ..	339
1. Tropical Nature of the Country ..	337	§ 6. Land Tenure .. ..	339
2. Contour and Physical Characteristics ..	337	§ 7. Commerce and Shipping—	
§ 4. Climate, Fauna and Flora—		1. Trade .. ..	340
1. The Seasons .. ..	338	2. Shipping .. ..	340
2. Fauna .. ..	338	§ 8. Internal Communication—	
3. Flora .. ..	338	1. Railways .. ..	340
		2. Posts .. ..	341
		3. Telegraphs .. ..	341
		§ 9. Finance—	
		1. Revenue and Expenditure 1931-32 ..	341
		2. Northern Territory Debt .. ..	341

CHAPTER XIII.—THE TERRITORIES OF THE COMMONWEALTH—*continued.*

	PAGE		PAGE
<b>THE FEDERAL CAPITAL TERRITORY.</b>		<b>THE TERRITORY OF NEW GUINEA.</b>	
1. Introductory .. ..	342	§ 1. General Description .. ..	354
2. Transfer of Parliament .. ..	342	§ 2. Government—	
3. Administration .. ..	342	1. The Military Occupation .. ..	355
4. Progress of Work .. ..	342	2. Mandate .. ..	355
5. Forestry .. ..	343	3. New Guinea Act .. ..	355
6. Lands .. ..	343	4. Legislative Council .. ..	355
7. Railways .. ..	344	5. Establishment of Civil Government .. ..	355
8. Population .. ..	344	6. Expropriation .. ..	355
9. Live Stock .. ..	344	7. Departments and Districts .. ..	355
10. Educational Facilities .. ..	344	8. Statute Law .. ..	355
11. Finance .. ..	345	9. Reports to the League of Nations .. ..	355
<b>NORFOLK ISLAND.</b>		§ 3. Population—	
1. Area, Location, etc. .. ..	346	1. White Population .. ..	356
2. Settlement .. ..	346	2. Asiatic Population .. ..	356
3. Administration .. ..	347	3. Native Population .. ..	356
4. Population .. ..	347	§ 4. The Natives—	
5. Live Stock .. ..	347	1. General .. ..	356
6. Production, Trade, etc. .. ..	347	2. Land Tenure .. ..	357
7. Communication .. ..	347	3. Research Work .. ..	357
8. Social Condition .. ..	348	4. Education .. ..	357
9. Finances .. ..	348	5. Health of Natives .. ..	357
<b>PAPUA.</b>		6. Missions .. ..	358
§ 1. General Description—		§ 5. Land Policy—	
1. Early Administration .. ..	348	1. Acquisition of Land .. ..	358
2. Administration by Commonwealth of Australia .. ..	348	2. Land Policy of the Present Administration .. ..	358
3. Area, etc. .. ..	348	3. Registration of Titles .. ..	358
§ 2. Population .. ..	349	§ 6. Production—	
§ 3. Native Labour, Taxation, Health, Etc.—		1. General .. ..	358
1. Native Labour .. ..	349	2. Agriculture .. ..	358
2. Native Taxes .. ..	349	3. Live Stock .. ..	360
3. Care of Half-caste Children .. ..	349	4. Timber .. ..	360
4. Health .. ..	350	5. Fisheries .. ..	360
§ 4. Land Tenure—		6. Mining .. ..	360
1. Method of Obtaining Land .. ..	350	§ 7. Trade—	
2. Holdings .. ..	350	1. Total Trade .. ..	361
§ 5. Production—		2. Principal Items of Import .. ..	361
1. General .. ..	350	3. Principal Items of Export .. ..	362
2. Agriculture .. ..	350	4. Exports of Copra and Cocoa .. ..	362
3. Forestry .. ..	351	5. Banks .. ..	362
4. Live Stock .. ..	351	§ 8. Shipping and Communication—	
5. Fisheries .. ..	351	1. General .. ..	362
6. Mining .. ..	352	2. Oversea Tonnage in 1931—32 .. ..	363
7. Water Power .. ..	352	3. Local Shipping .. ..	363
§ 6. Finance, Trade, Postal and Shipping—		4. Land Communication .. ..	363
1. Finance .. ..	352	5. Communication by Air .. ..	363
2. Trade .. ..	353	§ 9. Revenue and Expenditure—	
3. Shipping .. ..	353	1. Revenue .. ..	364
§ 7. Progress of Papua .. ..	354	2. Expenditure .. ..	364
<b>CHAPTER XIV.—PUBLIC FINANCE.</b>		<b>NAURU.</b>	
<b>A. GENERAL .. .. 368</b>		1. General .. ..	364
<b>B. COMMONWEALTH FINANCE.</b>		2. History .. ..	365
§ 1. General—		3. Administration .. ..	365
1. Financial Provisions of the Constitution .. ..	368	4. Population .. ..	365
2. Accounts of Commonwealth Government .. ..	368	5. Health .. ..	365
§ 2. Consolidated Revenue Fund—		6. Education .. ..	366
<b>DIVISION I. NATURE OF FUND .. 370</b>		7. Judiciary .. ..	366
<b>DIVISION II. REVENUE.</b>		8. Religion .. ..	366
1. General .. ..	370	9. Phosphate Deposits .. ..	366
2. Taxation .. ..	371	10. Trade .. ..	367
3. Business Undertakings .. ..	379	11. Revenue and Expenditure .. ..	367
4. Other Sources of Revenue .. ..	379	<b>B. COMMONWEALTH FINANCE—<i>continued.</i></b>	
<b>§ 2. Consolidated Revenue Fund—<i>continued.</i></b>		<b>DIVISION III. EXPENDITURE.</b>	
<b>DIVISION I. NATURE OF FUND .. 370</b>		<b>DIVISION IV. PAYMENTS TO OR FOR THE STATES .. .. 388</b>	
<b>DIVISION II. REVENUE.</b>		<b>§ 3. Trust Funds .. .. 388</b>	

CHAPTER XIV.—PUBLIC FINANCE—*continued.*

	PAGE		PAGE
<b>B. COMMONWEALTH FINANCE—<i>continued.</i></b>		<b>C. STATE FINANCE.</b>	
§ 4. Commonwealth Loan Funds and Public Debt—		§ 1. General—	
1. General .. .. .	388	1. Functions of State Governments ..	408
2. Loans taken over from South Australia .. .. .	388	2. Accounts of State Governments ..	408
3. Loan Fund for Public Works Redemptions, etc. .. .. .	389	3. Inter-relation of Commonwealth and State Finances .. .. .	408
4. Properties Transferred from States .. .. .	390	§ 2. Consolidated Revenue Funds—	
5. War Loan from the Imperial Government .. .. .	390	DIVISION I. REVENUE.	
6. Flotation of War Loans in Australia .. .. .	390	1. General .. .. .	408
7. Loan Raisings, 1931-32 .. .. .	390	2. Revenue Received .. .. .	409
8. Public Debt for Commonwealth Purposes .. .. .	391	3. Sources of Revenue .. .. .	410
9. Sinking Funds .. .. .	396	DIVISION II. EXPENDITURE.	
§ 5. Cost of War and Repatriation .. .. .	396	1. General .. .. .	416
§ 6. Old-age and Invalid Pensions—		2. Total Expenditure .. .. .	417
1. General .. .. .	397	3. Details of Expenditure .. .. .	417
2. Old-age Pensions .. .. .	398	DIVISION III. SURPLUS REVENUE. ..	418
3. Invalid Pensions .. .. .	399	§ 3. State Trust Funds—	
4. Cost of Administration .. .. .	400	1. Nature .. .. .	419
5. Summary .. .. .	400	2. Extent .. .. .	419
§ 7. Maternity Allowance—		§ 4. State Loan Funds—	
1. General .. .. .	400	DIVISION I. LOAN EXPENDITURE.	
2. Claims Paid in each State .. .. .	401	1. General .. .. .	419
§ 8. War Pensions—		2. Loan Expenditure, 1931-32 .. .. .	420
1. General .. .. .	401	3. Loan Expenditure, Quinquennium ..	421
2. Number of Pensioners and Expenditure on War Pensions .. .. .	402	4. Loan Expenditure, Financial Agreement Act .. .. .	421
3. Cost of Administration .. .. .	402	5. Total Loan Expenditure to 30th June, 1932 .. .. .	422
§ 9. Commonwealth Public Service Superannuation Fund .. .. .	402	DIVISION II. STATE PUBLIC DEBTS.	
§ 10. Currency and Coinage—		1. General .. .. .	422
1. Australian Mints .. .. .	403	2. State Debts .. .. .	423
2. Standard Weight and Fineness of Coinage .. .. .	403	3. Place of Flotation of Loans .. .. .	424
3. Gold Receipts and Issues .. .. .	403	4. Rates of Interest .. .. .	424
4. Price of Gold .. .. .	404	5. Dates of Maturity .. .. .	426
5. Silver and Bronze Coinage .. .. .	405	6. Sinking Funds .. .. .	427
6. Australian Note Issue .. .. .	406	D. COMMONWEALTH AND STATE FINANCE.	
7. Legal Tender Extant .. .. .	407	1. Revenue and Expenditure .. .. .	428
		2. Taxation .. .. .	429
		3. Public Debt .. .. .	430
		4. The Australian Loan Council .. .. .	434

## CHAPTER XV.—PRIVATE FINANCE.

A. GENERAL .. .. .	437	<b>C. COMPANIES—<i>continued.</i></b>	
<b>B. BANKING.</b>		§ 4. Co-operative Societies—	
§ 1. Cheque-Paying Banks—		1. General .. .. .	457
1. Banking Legislation .. .. .	435	2. Liabilities and Assets .. .. .	458
2. Presentation of Banking Statistics ..	435	D. INSURANCE.	
3. Banks in Operation—Capital Resources, etc. .. .. .	435	§ 1. General .. .. .	459
4. Commonwealth Bank .. .. .	437	§ 2. Life Assurance—	
5. Other Cheque-paying Banks .. .. .	440	1. General .. .. .	461
6. All Cheque-paying Banks .. .. .	441	2. Companies Transacting Business ..	461
7. Deposit Rates .. .. .	445	3. Australian Business .. .. .	461
8. Clearing House Returns .. .. .	445	4. Receipts and Expenditure .. .. .	461
9. Rates of Exchange .. .. .	446	5. Liabilities and Assets .. .. .	463
§ 2. Savings Banks—		6. New Policies issued in Australia ..	464
1. General .. .. .	448	7. Policies discontinued in Australia ..	464
2. The Commonwealth Savings Bank ..	448	8. Conspectus of Australian Life Assurance Legislation .. .. .	465
3. Recent Amalgamations .. .. .	449	§ 3. Fire, Marine and General Insurance—	
4. Extension of Facilities .. .. .	449	1. Australasian Companies .. .. .	465
5. Classification of Depositors' Balances ..	449	2. Aggregate Australian Business ..	467
6. Number of Accounts .. .. .	449	E. FRIENDLY SOCIETIES.	
7. Rates of Interest on Deposits .. .. .	450	1. General .. .. .	468
8. Statistical Returns .. .. .	450	2. Number of Societies, Lodges and Members .. .. .	468
9. All Savings Banks .. .. .	451	3. Sickness and Death Returns .. .. .	468
10. Commonwealth Savings Bank .. .. .	452	4. Revenue and Expenditure .. .. .	469
11. State Savings Banks .. .. .	453	5. Funds .. .. .	470
C. COMPANIES.		F. PROBATES.	
§ 1. General .. .. .	455	1. Probates and Letters of Administration .. .. .	470
§ 2. Trustees, Executors and Agency Companies ..	455	2. Intestate Estates .. .. .	470
§ 3. Registered Building and Investment Societies—			
1. Summary .. .. .	456		
2. Liabilities and Assets .. .. .	456		

CHAPTER XV.—PRIVATE FINANCE—*continued.*

	PAGE
<b>G. THE WEALTH OF AUSTRALIA, 1929.</b>	
§ 1. <b>Introductory—</b>	
1. General .. ..	471
2. Basis of Estimate .. ..	471
3. Private Wealth .. ..	471
§ 2. <b>Land and Improvements—</b>	
1. Nature of Estimate .. ..	471
2. New South Wales .. ..	472
3. Victoria .. ..	473
4. Queensland .. ..	473
5. South Australia .. ..	474
6. Western Australia .. ..	475
7. Tasmania .. ..	476
8. Territories .. ..	476
9. Australia .. ..	476
§ 3. <b>Live Stock—</b>	
1. Numbers of Principal Classes .. ..	476
2. Basis of Valuation .. ..	477
3. Estimated Value of Principal Classes .. ..	477
4. Minor Classes .. ..	477
5. Total Values .. ..	478
§ 4. <b>Agricultural, Dairying and Pastoral Implements and Machinery—</b>	
1. Details Recorded .. ..	478
2. Estimate for Victoria .. ..	478
§ 5. <b>Manufacturing Plant and Machinery .. 479</b>	
§ 6. <b>Mining Properties—</b>	
1. Difficulties of Estimation .. ..	479
2. Value of Mining Plant and Machinery .. ..	480
3. Annual Value of Mineral Production .. ..	480
4. Earlier Estimates of Value of Mining Properties .. ..	480
5. Estimate for 1929 .. ..	480
§ 7. <b>Coin and Bullion—</b>	
1. Location of Stocks .. ..	481
2. Holdings by Cheque-Paying Banks .. ..	481
3. Holding of Commonwealth Bank .. ..	481
4. Holding by the Mint .. ..	482
5. Coin in Circulation .. ..	482
6. Summary .. ..	482

	PAGE
<b>G. THE WEALTH OF AUSTRALIA, 1929— <i>continued.</i></b>	
§ 8. <b>Private Railways and Tramways—</b>	
1. Private Railways .. ..	483
2. Private Tramways .. ..	483
3. Summary .. ..	483
§ 9. <b>Shipping—</b>	
1. Vessels on Australian Registers at 30th June, 1929 .. ..	483
2. Average Value per Net Ton .. ..	484
3. Estimated Value .. ..	484
§ 10. <b>Products of Local Industry—</b>	
1. Agricultural and Pastoral .. ..	484
2. Local Manufactures .. ..	484
3. Mining Products .. ..	485
§ 11. <b>Merchandise and Personal Effects—</b>	
1. Imported Merchandise .. ..	485
2. Clothing and Personal Adornments .. ..	486
3. Furniture, Fittings, etc. .. ..	486
§ 12. <b>Vehicles, Aircraft and Wireless—</b>	
1. Motor Vehicles .. ..	487
2. Other Vehicles .. ..	487
3. Aircraft .. ..	488
4. Wireless Stations .. ..	488
§ 13. <b>Summary of Private Wealth, 1929—</b>	
1. Aggregate .. ..	489
2. Significance .. ..	490
§ 14. <b>Earlier Inventory Estimates of Private Wealth in Australia—</b>	
1. Estimates for 1890 and Earlier Years .. ..	490
2. Estimates for 1903 and Earlier Years .. ..	491
§ 15. <b>Comparison of Earlier Estimates with Those for more Recent Dates—</b>	
1. Aggregate Amounts .. ..	492

## CHAPTER XVI.—MINERAL INDUSTRY.

§ 1. <b>The Mineral Wealth of Australia—</b>	
1. Place of Mining in Australian Development .. ..	495
2. Extent of Mineral Wealth .. ..	495
3. Quantity and Value of Production, year .. ..	495
4. Value of Production, Quinquennium .. ..	497
5. Total production .. ..	497
6. Decline in the Metalliferous Industry .. ..	498
7. Geophysical Methods for Detection of Ore Deposits .. ..	498
§ 2. <b>Gold—</b>	
1. Discovery in various States .. ..	498
2. Production at various Periods .. ..	498
3. Changes in Relative Positions of States as Gold Producers .. ..	499
4. Place of Australia in the World's Gold Production .. ..	499
5. Employment in Gold Mining .. ..	501
6. Bounty on Production .. ..	501

§ 3. <b>Platinum and Platinoid Metals—</b>	
1. Platinum .. ..	501
2. Osmium, Iridium, etc. .. ..	501
§ 4. <b>Silver, Lead, and Zinc—</b>	
1. Occurrence in each State .. ..	502
2. Production .. ..	502
3. World's Production .. ..	504
4. Prices of Silver, Lead, and Zinc .. ..	505
5. Employment in Silver, Lead, and Zinc Mining .. ..	505
§ 5. <b>Copper—</b>	
1. Production .. ..	505
2. Sources of Production .. ..	506
3. Prices .. ..	509
4. World's Production of Copper .. ..	509
5. Employment in Copper Mining .. ..	510

CHAPTER XVI.—MINERAL INDUSTRY—*continued.*

	PAGE		PAGE
<b>§ 6. Tin—</b>		<b>§ 12. Oil Shale and Mineral Oil ..</b>	523
1. Production .. ..	510	<b>§ 13. Other Non-Metallic Minerals ..</b>	524
2. Sources of Production .. ..	510	<b>§ 14. Gems and Gemstones—</b>	
3. World's Production .. ..	511	1. Diamonds .. ..	525
4. Prices .. ..	511	2. Sapphires .. ..	525
5. Employment in Tin Mining .. ..	512	3. Precious Opals .. ..	525
<b>§ 7. Zinc—</b>		4. Other Gems .. ..	525
1. Production .. ..	512	<b>§ 15. Numbers Engaged, Wages Paid, and Acci-</b>	
2. World's Production .. ..	513	<b>      dents in Mining—</b>	
3. Prices .. ..	513	1. Total Employment in Mining .. ..	526
<b>§ 8. Iron—</b>		2. Wages paid in Mining .. ..	527
1. General .. ..	513	3. Accidents in Mining .. ..	527
2. Production .. ..	513	<b>§ 16. Government Aid to Mining—</b>	
3. Iron and Steel Bounties .. ..	514	1. Commonwealth .. ..	528
4. World's Production of Iron and Steel .. ..	514	2. New South Wales .. ..	528
<b>§ 9. Other Metallic Minerals .. ..</b>	515	3. Victoria .. ..	529
<b>§ 10. Coal—</b>		4. Queensland .. ..	529
1. Production in each State .. ..	515	5. South Australia .. ..	529
2. Production per Employee .. ..	516	6. Western Australia .. ..	529
3. Distribution and Production of Coal .. ..	516	7. Tasmania .. ..	529
4. Production in various Countries .. ..	518	8. Northern Territory .. ..	529
5. Exports .. ..	519	<b>§ 17. Metallic Contents of Ores, etc., Produced</b>	
6. Consumption in Australia .. ..	520	<b>      and Exported—</b>	
7. Prices .. ..	521	1. Local Production .. ..	530
8. Prices in the United Kingdom .. ..	521	2. Metallic Contents of Ores, Concen-	530
9. Employment and Accidents in Coal .. ..	522	trates, etc., Exported .. ..	530
<b>§ 11. Coke .. ..</b>	523	<b>§ 18. Oversea Exports of Ores, Metals, etc. ..</b>	531

## CHAPTER XVII.—PASTORAL PRODUCTION.

<b>§ 1. Initiation and Growth of Pastoral Industry—</b>		<b>§ 4. Sheep—</b>	
1. Early Statistics .. ..	532	1. Initiation of the Pastoral Industry ..	546
2. Subsequent Statistics .. ..	532	2. Distribution throughout Australia ..	546
3. Increase in Live Stock .. ..	532	3. Proportion in the Several States ..	547
4. Fluctuations .. ..	532	and Territories .. ..	547
5. Live Stock in Relation to Popula-	533	4. Comparison with other Countries ..	547
tion .. ..	533	5. World's Totals .. ..	548
6. Live Stock in Relation to Area .. ..	533	6. Oversea Imports and Exports of ..	548
7. Minor Classes of Live Stock .. ..	533	Sheep .. ..	548
8. Net Exports of Principal Pastoral ..	533	7. Sheep Slaughtered .. ..	549
Products .. ..	533	8. Production and Consumption of ..	549
9. Value of Pastoral Production .. ..	535	Mutton and Lamb .. ..	549
10. Consumption of Meats .. ..	535	9. Exports of Frozen Mutton and ..	549
<b>§ 2. Horses—</b>		Lamb .. ..	549
1. Suitability of Australia for Horse-	536	10. Resolutions at Ottawa Conference ..	549
breeding .. ..	536	11. Imports of Frozen Mutton and Lamb ..	549
2. Distribution throughout Australia ..	536	into the United Kingdom .. ..	549
3. Proportions in the Several States ..	537	<b>§ 5. Wool—</b>	
and Territories .. ..	537	1. General .. ..	551
4. Relation to Population .. ..	537	2. Value .. ..	552
5. Comparison with other Countries ..	537	3. Greasy and Scoured Wool .. ..	552
6. World's Totals .. ..	538	4. Production .. ..	552
7. Oversea Trade in Horses .. ..	538	5. Care Needed in Comparing Clips ..	552
<b>§ 3. Cattle—</b>		6. World's Wool Production .. ..	553
1. Purposes for which Raised .. ..	539	7. Wool Locally Used .. ..	554
2. Distribution throughout Australia ..	539	8. Exports of Wool .. ..	555
3. Comparison with other Countries ..	540	9. Average Export Value .. ..	556
4. World's Totals .. ..	540	10. Average Market Value .. ..	556
5. Imports and Exports of Cattle .. ..	543	11. Exports and Local Sales of Wool ..	556
6. Cattle Slaughtered .. ..	543	12. The Wool Market .. ..	557
7. Production and Consumption of ..	543	13. United Kingdom Importation of ..	557
Beef .. ..	543	Wool .. ..	557
8. Export of Frozen Beef .. ..	543	14. Inquiry into Wool Industry .. ..	558
9. Agreements regarding Meat at the ..	544	<b>§ 6. Trade in Hides and Skins—</b>	
Ottawa Conference .. ..	544	1. Extent of Trade .. ..	559
10. Imports of Chilled and Frozen Beef ..	545	2. Sheepskins with Wool .. ..	559
into the United Kingdom .. ..	545	3. Sheepskins without Wool .. ..	559
		4. Hides .. ..	559
		5. Other Skins .. ..	560

## CHAPTER XVIII.—AGRICULTURAL PRODUCTION.

	PAGE		PAGE
§ 1. Introductory .. .. .	561	§ 12. Hay—	
§ 2. Progress of Agriculture—		1. General .. .. .	589
1. Early Records .. .. .	561	2. Comparison with Other Countries ..	591
2. Progress of Cultivation .. .. .	561	3. Imports and Exports .. .. .	591
3. Artificially-sown Grasses .. .. .	562	4. Value of Hay Crop .. .. .	592
§ 3. Distribution, Production, and Value of Crops—		§ 13. Green Forage—	
1. Distribution of Crops .. .. .	562	1. Nature and Extent .. .. .	592
2. Relative Areas of Crops in States and Territories .. .. .	562	2. Value of Green Forage Crops .. .. .	592
3. Area under Chief Crops, Australia ..	563	§ 14. Sugar-cane and Sugar-beet—	
4. Total and Average Production, Chief Crops, Australia .. .. .	564	1. Sugar-cane .. .. .	592
5. Average Production per Acre, Chief Crops, Australia .. .. .	564	2. Sugar-beet .. .. .	595
6. Gross Value of Agricultural Production, Australia .. .. .	564	3. Sugar Bounties .. .. .	596
7. Value of Production—Gross and Net ..	565	4. Sugar Purchase by Commonwealth Government .. .. .	596
§ 4. Wheat—		5. Sugar Agreement—Embargo on Imports, etc. .. .. .	596
1. Progress of Wheat-growing .. .. .	566	6. Net Return for Sugar Crop .. .. .	596
2. Australian and Foreign Wheat Yields .. .. .	570	7. Imports and Exports of Sugar .. .. .	597
3. Export Price of Wheat .. .. .	572	8. Sugar By-products .. .. .	597
4. Exports of Wheat and Flour .. .. .	572	9. Sugar Prices .. .. .	597
5. Exports—Principal Countries .. .. .	573	§ 15. Vineyards—	
6. Imports—Principal Countries .. .. .	575	1. Progress of Cultivation .. .. .	598
7. Consumption of Wheat .. .. .	576	2. Imports and Exports of Wine .. .. .	599
8. Value of the Wheat Crop .. .. .	577	3. Other Viticultural Products .. .. .	600
9. Stocks of Wheat and Flour .. .. .	577	4. Imports and Exports of Raisins and Currants .. .. .	601
10. Voluntary Wheat Pools .. .. .	577	5. Marketing of Raisins and Currants ..	602
§ 5. Oats—		6. Prices of Australian Raisins and Currants .. .. .	602
1. Progress of Cultivation .. .. .	577	§ 16. Orchards and Fruit Gardens—	
2. World's Production .. .. .	579	1. Progress of Cultivation .. .. .	602
3. Prices of Oats .. .. .	579	2. Varieties of Crops .. .. .	602
4. Imports and Exports .. .. .	579	3. Principal Fruit Crops .. .. .	604
5. Oatmeal, etc. .. .. .	579	4. Imports and Exports of Fruit .. .. .	605
6. Value of Oat Crop .. .. .	579	§ 17. Minor Crops—	
§ 6. Maize—		1. General .. .. .	606
1. States Growing Maize .. .. .	580	2. Market Gardens .. .. .	607
2. Progress of Cultivation .. .. .	580	3. Grass Seed .. .. .	607
3. World's Production .. .. .	581	4. Tobacco .. .. .	607
4. Price of Maize .. .. .	581	5. Pumpkins and Melons .. .. .	608
5. Oversea Imports and Exports .. .. .	581	6. Hops .. .. .	608
6. Maize Products .. .. .	581	7. Flax .. .. .	608
7. Value of Crop .. .. .	582	8. Millet .. .. .	609
§ 7. Barley—		9. Nurseries .. .. .	609
1. Progress of Cultivation .. .. .	582	10. Cotton .. .. .	609
2. Comparison with other Countries ..	584	11. Coffee .. .. .	610
3. World's Production .. .. .	584	12. Other Crops .. .. .	610
4. Prices .. .. .	584	§ 18. Bounties .. .. .	610
5. Imports and Exports .. .. .	584	§ 19. Fertilizers—	
6. Imports and Exports of Malt .. .. .	585	1. General .. .. .	611
7. Value of Barley Crop .. .. .	585	2. Fertilizers Acts .. .. .	611
§ 8. Rice .. .. .	585	3. Imports .. .. .	612
§ 9. Other Grain and Pulse Crops .. ..	586	4. Exports .. .. .	612
§ 10. Potatoes—		5. Quantities Locally Used .. .. .	613
1. Progress of Cultivation .. .. .	586	6. Local Production .. .. .	614
2. Imports and Exports .. .. .	588	§ 20. Ensilage—	
3. Value of Potato Crop .. .. .	588	1. Government Assistance in Production .. .. .	614
§ 11. Other Root and Tuber Crops—		2. Quantity Made .. .. .	614
1. General .. .. .	589	§ 21. Agricultural Colleges and Experimental Farms—	
2. Imports and Exports .. .. .	589	1. General .. .. .	614
<b>CHAPTER XIX.—FARMYARD, DAIRY AND BEE PRODUCTS.</b>			
§ 1. Introductory—		§ 2. Dairy Cattle and Dairy Products— <i>cont.</i>	
1. General .. .. .	616	4. Condensed or Concentrated Milk ..	620
2. Official Supervision of Industry ..	616	5. Oversea Trade in Butter, Cheese, and Milk .. .. .	620
3. Stabilization Scheme .. .. .	616	6. Local Consumption of Butter and Cheese .. .. .	621
4. Mixed Farming .. .. .	617	§ 3. Pigs and Pig Products—	
5. Factory System .. .. .	617	1. Pigs .. .. .	621
6. Butter and Cheese Factories .. .. .	617	2. Bacon and Ham .. .. .	621
7. Ottawa Conference .. .. .	618	3. Pork Consumption .. .. .	621
§ 2. Dairy Cattle and Dairy Products—		4. Oversea Trade in Pig Products .. ..	621
1. Dairy Herds .. .. .	618	§ 4. Total Dairy Production .. .. .	622
2. Milk .. .. .	618		
3. Butter and Cheese .. .. .	619		



CHAPTER XIX.—FARMYARD, DAIRY AND BEE PRODUCTS—*continued.*

	PAGE		PAGE
§ 5. Poultry Farming—		§ 8. Exports of Australian Farmyard, Dairy and Bee Products ..	627
1. General .. ..	623		
2. Poultry Products .. ..	624	§ 9. British Imports of Dairy Products—	
3. Oversea Trade in Poultry Products ..	624	1. Quantities and Values .. ..	627
§ 6. Bee Farming—		2. Butter .. ..	628
1. General .. ..	625	3. Cheese .. ..	628
2. Production of Honey and Beeswax ..	625	4. Bacon and Ham .. ..	628
3. Oversea Trade in Bee Products ..	626	5. Pork .. ..	628
§ 7. Value of Farmyard, Dairy and Bee Products ..	626	6. Other Products .. ..	628

## CHAPTER XX.—FORESTRY.

§ 1. General—		§ 6. Forestry Production—	
1. Objects of Forestry .. ..	629	1. Timber .. ..	635
2. Extent of Forests .. ..	629	2. Other Forest Products .. ..	636
3. Requisite Proportion of Forest Area ..	631	3. Value of Production .. ..	637
§ 2. Forestry Activities of the Commonwealth Government .. ..	631	§ 7. Commercial Uses of Principal Australian Timbers—	
§ 3. State Forestry Departments—		1. General .. ..	637
1. Functions .. ..	632	2. Lack of Uniformity in Nomenclature .. ..	637
2. Forest Reservations .. ..	632	§ 8. Oversea Trade—	
3. Sylvicultural Nurseries and Plantations .. ..	633	1. Imports .. ..	637
4. Revenue and Expenditure .. ..	633	2. Exports .. ..	638
§ 4. The Australian Forestry School .. ..	634	3. Classification of Imports and Exports .. ..	639
§ 5. Forest Congresses .. ..	634		

## CHAPTER XXI.—FISHERIES.

§ 1. General—		§ 3. Oversea Trade in Fishery Products—	
1. Fish Stocks .. ..	642	1. Imports of Fish .. ..	646
2. Progress of Industry .. ..	642	2. Exports of Fish .. ..	647
3. Consumption of Fish .. ..	643	3. Exports of Pearl and Other Shell ..	647
4. Oyster Fisheries .. ..	643	§ 4. The Commonwealth Department of Fisheries .. ..	647
5. Pearl-shell, Pearls, Bêche-de-Mer, etc. .. ..	643	§ 5. Trawling in Australian Waters .. ..	647
§ 2. The Fishing Industry—			
1. Boats and Men Engaged, and Take ..	644		
2. Fish Preserving .. ..	645		
3. State Revenue from Fisheries .. ..	646		

## CHAPTER XXII.—MANUFACTURING INDUSTRY.

§ 1. Number and Classification of Factories—		§ 6. Child Labour in Factories—	
1. Number of Factories in each State ..	648	1. Conditions of Child Labour .. ..	658
2. Classification of Factories, Australia ..	648	2. Average number of Children Employed .. ..	659
3. Classification of Factories, States ..	649	3. Percentage of Children on Total Number of Employees .. ..	659
§ 2. Classification of Factories according to Number of Employees—		4. Industries Employing Child Labour ..	660
1. States .. ..	649	5. Apprenticeship .. ..	660
2. Australia .. ..	650	§ 7. Salaries and Wages Paid and Value of Production—	
§ 3. Power Used in Factories—		1. General .. ..	661
1. States .. ..	651	2. Salaries and Wages Paid .. ..	661
2. Australia .. ..	651	3. Value of Power, Fuel and Light Used ..	665
3. Classes of Industry .. ..	652	4. Value of Materials Used .. ..	665
§ 4. Employment in Factories—		5. Total Value of Output .. ..	666
1. Total Number Employed .. ..	652	6. Value of Production .. ..	667
2. Rates of Increase .. ..	653	7. Value of Output and Cost of Production .. ..	669
3. Employees in Classes of Industry, Australia .. ..	654	§ 8. Value of Land, Buildings, Plant and Machinery—	
4. Employees in Classes of Industry, States .. ..	654	1. General .. ..	669
5. Employees According to Nature of Employment .. ..	655	2. Value of Land and Buildings .. ..	670
§ 5. Sex Distribution in Factories—		3. Value of Plant and Machinery .. ..	672
1. Employment of Females .. ..	656	§ 9. Individual Industries—	
2. Distribution of Employees according to Sex .. ..	656	1. General .. ..	673
3. Rate of Variation for each Sex .. ..	657	2. Tanning, Currying and Leather Dressing .. ..	674
4. Masculinity of Employees in Factories .. ..	657	3. Soap and Candle Factories .. ..	675
5. Employment of Females in Particular Industries .. ..	657	4. Saw Mills, etc. .. ..	676
		5. Agricultural Implement Works .. ..	677
		6. Engineering Works .. ..	678
		7. Smelting, Converting, Refining and Rolling of Iron and Steel .. ..	678
		8. Railway and Tramway Workshops ..	679

CHAPTER XXII.—MANUFACTURING INDUSTRY—*continued.*

	PAGE		PAGE
<b>§ 9. Individual Industries—<i>continued.</i></b>		<b>§ 9. Individual Industries—<i>continued.</i></b>	
9. Extracting and Refining of Other Metals and Alloys .. .. .	680	20. Distilleries .. .. .	689
10. Bacon-curing Factories .. .. .	680	21. Tobacco, etc., Factories .. .. .	689
11. Butter, Cheese, and Condensed Milk Factories .. .. .	681	22. Woollen and Tweed Mills .. .. .	690
12. Meat and Fish Preserving Works .. .. .	682	23. Boot Factories .. .. .	691
13. Bakeries .. .. .	683	24. Tailoring, and Slop Clothing Factories .. .. .	692
14. Jam and Fruit Preserving, Pickles, Sauces, and Vinegar Factories .. .. .	683	25. Dressmaking and Millinery Establishments .. .. .	693
15. Confectionery Factories .. .. .	684	26. Printing and Binding Works .. .. .	694
16. Grain Milling .. .. .	685	27. Motor Vehicles and Cycles .. .. .	695
17. Sugar Mills .. .. .	686	28. Furniture and Cabinet Making and Billiard Table Making Factories .. .. .	696
18. Sugar Refineries .. .. .	687	29. Electric Light and Power Works .. .. .	696
19. Breweries .. .. .	687	30. Gas Works .. .. .	696

## CHAPTER XXIII.—WATER CONSERVATION AND IRRIGATION.

<b>§ 1. Artesian Water—</b>		<b>§ 2. Irrigation—</b>	
1. General .. .. .	698	1. General .. .. .	699
2. The Great Australian Artesian Basin .. .. .	698	2. Areas Irrigated .. .. .	700
3. The Western Australian Basins .. .. .	698	3. Crops on Irrigated Areas .. .. .	700
4. The Murray River Basin .. .. .	698		
5. Plutonic or Meteoric Waters .. .. .	699		
6. Artesian and Sub-Artesian Bores .. .. .	699		

## CHAPTER XXIV.—LABOUR, WAGES, AND PRICES.

<b>A. PRICES.</b>		<b>B. WAGES—<i>continued.</i></b>	
<b>§ 1. Wholesale Prices—</b>		<b>§ 3. The Basic Wage and Child Endowment in Australia—</b>	
1. General .. .. .	703	1. The Basic Wage .. .. .	725
2. Index-numbers .. .. .	703	2. Child Endowment .. .. .	729
3. Revision of the Index .. .. .	704	<b>§ 4. Changes in Rates of Wage .. .. .</b>	<b>730</b>
<b>§ 2. Retail Prices and House Rents—</b>		<b>C. EMPLOYMENT.</b>	
1. Introduction .. .. .	704	<b>§ 1. Industrial Disputes—</b>	
2. Index Numbers .. .. .	704	1. General .. .. .	730
3. Food and Housing: Six Capital Cities .. .. .	705	2. Industrial Disputes involving Stoppage of Work, Classified in Industrial Groups .. .. .	731
4. Retail Price Index-numbers in Terms of Currency .. .. .	706	3. Industrial Disputes, Australia .. .. .	732
5. Food and Housing, Thirty Towns .. .. .	707	4. Summary of Disputes (involving Stoppage of Work) .. .. .	734
<b>§ 3. Variations in the Cost of Food, Groceries, Rent, Clothing and Miscellaneous Expenditure—</b>		5. Particulars of Principal Disputes .. .. .	737
1. General .. .. .	708	6. Duration of Industrial Disputes .. .. .	739
2. Methods Adopted .. .. .	708	7. Causes of Industrial Disputes .. .. .	739
3. Period Selected as Base .. .. .	708	8. Results of Industrial Disputes .. .. .	741
4. Variations in Cost in the Capital Cities .. .. .	708	9. Methods of Settlement .. .. .	741
<b>§ 4. Retail Price Index-numbers, 200 Towns—</b>		<b>§ 2. Fluctuations in Employment—</b>	
1. General .. .. .	709	1. General .. .. .	743
2. Detailed Results .. .. .	709	2. Unemployment .. .. .	743
		3. Seasonal Employment in Australia .. .. .	745
		4. Special Legislation for the Relief of Unemployment .. .. .	745
<b>B. WAGES.</b>		<b>§ 3. Apprenticeship .. .. .</b>	<b>745</b>
<b>§ 1. Operations under Wages Board and Industrial Arbitration Acts—</b>		<b>D. ASSOCIATIONS.</b>	
1. General .. .. .	714	<b>§ 1. Labour Organizations—</b>	
2. Awards, Determinations, Industrial Agreements .. .. .	714	1. Registration .. .. .	745
3. Boards Authorized, Awards, etc., in Force .. .. .	714	2. Particulars regarding Trade Unions .. .. .	746
<b>§ 2. Rates of Wage and Hours of Labour—</b>		3. Central Labour Organizations .. .. .	749
1. General .. .. .	715	4. Laws relating to Conditions of Labour .. .. .	750
2. Weekly Rates of Wage .. .. .	716	<b>§ 2. Employers' Associations—</b>	
3. Relative Hours of Labour and Hourly Rates of Wage .. .. .	719	1. General .. .. .	750
4. Weighted Average Nominal Weekly Hours of Labour, Adult Males .. .. .	721	2. Employers' Associations in each State .. .. .	750
5. Nominal and Real Wages .. .. .	722	3. Employers' Associations in Industrial Groups .. .. .	751
		4. Federations of Employers' Associations .. .. .	751

## CHAPTER XXV.—POPULATION.

	PAGE		PAGE
§ 1. Enumerations and Estimates ..	753	§ 11. Dwellings ..	776
§ 2. Accuracy of Estimates of Population ..	753	§ 12. Oversea Migration—	
§ 3. Census of 1933 ..	753	1. Oversea Migration during Present Century ..	779
§ 4. Censuses, 1881-1933—		2. Country of Embarkation and Destination ..	780
1. Census of 1933 ..	753	3. Nationality or Race ..	780
2. Increase since Census of 1881 ..	754	4. Classes of Arrivals and Departures ..	781
§ 5. Distribution and Fluctuation of Population—		§ 13. Immigration—	
1. Present Number ..	755	(A) THE ENCOURAGEMENT OF IMMIGRATION INTO AUSTRALIA.	
2. Growth and Distribution ..	755	1. Joint Commonwealth and States' Immigration Scheme ..	784
3. Mean Population ..	761	2. Assisted Passages ..	784
4. Area, Population, Masculinity, and Density—States ..	762	3. Results of Assisted Immigration ..	784
5. Urban and Rural Distribution ..	762	(B) THE REGULATION OF IMMIGRATION INTO AUSTRALIA.	
6. Metropolitan Population—Australia and other Countries ..	765	1. Powers and Legislation of the Commonwealth ..	785
7. Principal Urban Centres ..	766	2. Conditions of Immigration into Australia ..	785
§ 6. Elements of Increase—		3. Persons admitted without Dictation Test ..	786
1. Natural Increase ..	766	4. Departures of Persons of Non-European Races ..	786
2. Net Immigration ..	769	(C) PASSPORTS ..	787
3. Total Increase ..	770	§ 14. Naturalization—	
4. Rates of Increase ..	772	1. Commonwealth Legislation ..	787
§ 7. Seasonal Variations of Population—		2. Certificates granted ..	787
1. Variations in Natural Increase ..	772	§ 15. Population of Territories ..	788
2. Variations in Net Immigration ..	773	§ 16. The Aboriginal Population ..	788
§ 8. Influences affecting Increase and Distribution ..	773	§ 17. The Chinese in Australia ..	788
§ 9. Density—		§ 18. The Pacific Islanders in Australia ..	788
1. General ..	773		
2. Position of the British Empire ..	774		
§ 10. General Characteristics—			
1. Sex Distribution ..	775		
2. Age Distribution ..	775		
3. Race and Nationality; Education; Religions; Conjugal Condition; Occupations; Grade of Employment; Unemployment ..	776		

## CHAPTER XXVI.—VITAL STATISTICS.

§ 1. Births—		§ 3. Deaths— <i>continued.</i>	
1. Births, 1932 ..	789	5. Infantile Deaths and Death Rates ..	811
2. Birth Rates ..	790	6. Deaths in Age Groups ..	816
3. Birth Rates of various Countries ..	791	7. Deaths at Single Ages and in Age Groups ..	817
4. Masculinity of Births ..	791	8. Deaths of Centenarians ..	817
5. Ex-nuptial Births ..	792	9. Length of Residence in Australia of Persons who died ..	819
6. Legitimations ..	799	10. Birthplaces of Persons who died ..	819
7. Multiple Births ..	799	11. Occupations of Males who died ..	820
8. Ages of Parents ..	800	12. Causes of Death ..	820
9. Birthplaces of Parents ..	800	13. Deaths from Specific Causes ..	826
10. Occupations of Fathers ..	801	14. Causes of Deaths in Classes ..	843
11. Mother's Age, Duration of Marriage, and Issue ..	802	15. Ages at Death of Married Males and Females, and Issue ..	845
12. Interval between Marriage and First Birth ..	804	16. Ages at Marriage of Deceased Males and Females, and Issue ..	846
13. Interval between Birth and Registration of Birth ..	805	17. Birthplaces of Deceased Married Males and Females, and Issue ..	846
§ 2. Marriages—		18. Occupations of Deceased Married Males, and Issue ..	847
1. Marriages, 1932 ..	805	§ 4. Australian Life Tables ..	847
2. Marriage Rates in various Countries ..	806	§ 5. Registration of Births, Deaths, and Marriages in the Territory for the Seat of Government ..	847
3. Ages and Conjugal Condition at Marriage ..	806	§ 6. Graphical Representation of Vital Statistics—	
4. Previous Conjugal Condition ..	808	1. General ..	848
5. Birthplaces of Persons Married ..	808	2. Graphs of Annual Births, Marriages, and Deaths ..	848
6. Occupations and Ages of Bridegrooms ..	808	3. Graphs of Annual Birth, Marriage, and Death Rates, and Rate of Natural Increase ..	848
7. Fertility of Marriages ..	809		
8. Celebration of Marriages ..	809		
§ 3. Deaths—			
1. Deaths, 1932 ..	810		
2. Crude Death Rates ..	810		
3. Index of Mortality ..	810		
4. Crude Death Rates of various Countries ..	811		

## CHAPTER XXVII.—MISCELLANEOUS.

	PAGE		PAGE
<b>§ 1. Patents, Trade Marks and Designs—</b>		<b>§ 6 Australian Institute of Anatomy—</b>	
1. Patents .. .. .	849	1. Foundation of Institute .. .. .	853
2. Trade Marks and Designs .. .. .	850	2. Additions to Original Collection .. .. .	853
<b>§ 2. Copyright—</b>		3. Endowments for Orations and Lectures .. .. .	853
1. Legislation .. .. .	850	4. Ultimate Scope of the Institute .. .. .	854
2. Applications and Registrations .. .. .	851	<b>§ 7. The Commonwealth Solar Observatory—</b>	
<b>§ 3. Local Option, and Reduction of Licences</b>	851	1. Reasons for Foundation .. .. .	854
<b>§ 4. Lord Howe Island—</b>		2. History of Inauguration .. .. .	854
1. Area, Location, etc. .. .. .	851	3. Site of Observatory .. .. .	854
2. Settlement .. .. .	851	4. Equipment .. .. .	854
3. Population .. .. .	852	5. Observational Work .. .. .	855
4. Production, Trade, etc. .. .. .	852	<b>§ 8. Standards Association of Australia</b>	855
<b>§ 5. Commonwealth Council for Scientific and Industrial Research—</b>		<b>§ 9. Valuation of Australian Production—</b>	
1. General .. .. .	852	1. Value of Production .. .. .	856
2. Science and Industry Research Act 1926 .. .. .	852	2. Productive Activity .. .. .	857
3. Science and Industry Endowment Act 1926 .. .. .	852	<b>§ 10. Film Censorship—</b>	
4. Work of the Council .. .. .	852	1. Legislation .. .. .	859
		2. Imports of Films .. .. .	860
		3. Export of Films .. .. .	860
		<b>§ 11. Marketing of Australian Commodities</b>	860
		<b>§ 12. National Safety Council of Australia</b>	860
		<b>§ 13. Antarctica .. .. .</b>	861
		<b>§ 14. League of Nations .. .. .</b>	861

## CHAPTER XXVIII.—STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

<b>§ 1. General .. .. .</b>	862	<b>§ 3. Selected list of One Hundred Representative Works dealing with Australia</b>	863
<b>§ 2. Statistical Publications of Australia—</b>			
1. General .. .. .	862		
2. Commonwealth Publications .. .. .	862		
3. State Publications .. .. .	863		

## APPENDIX.

<b>Chapter III.—General Government—</b>		<b>Chapter XIV.—Public Finance—</b>	
<b>§ 3. Administration and Legislation—</b>		The Financial Crisis—	
2. (c) Lyons Government .. .. .	867	1. General .. .. .	884
<b>Chapter VI.—Transport and Communication—</b>		2. Elements of the Situation .. .. .	885
(E) MOTOR VEHICLES—		3. Attempts to meet the Situation .. .. .	885
5. Motor Vehicles Registered .. .. .	868	4. Effects on Government Finance .. .. .	891
<b>Chapter VII.—Trade—</b>		5. Present Position of Government Finance .. .. .	891
<b>§ 2. Commonwealth Legislation affecting Oversea Trade .. .. .</b>	868	6. The Adopted Plan .. .. .	892
<b>§ 5. Australian Balance of Payments—</b>		(B) COMMONWEALTH FINANCE .. .. .	897
1. General .. .. .	873	(C) STATE FINANCE .. .. .	897
2. The Balance of International Payments .. .. .	873	<b>Chapter XV.—Private Finance—</b>	
3. The Balance of International Indebtedness .. .. .	878	(B) BANKING	
4. Notes on Goods, Services and Gold Production .. .. .	879	<b>§ 1. Cheque-paying Banks—</b>	
5. Notes on Capital Items .. .. .	882	Average Liabilities and Assets .. .. .	898
6. Short-cut Estimation .. .. .	883	<b>§ 2. Savings Banks—</b>	
		Savings Bank Deposits .. .. .	898
		<b>Chapter XVI.—Mineral Industry—</b>	
		<b>§ 1. The Mineral Wealth of Australia—</b>	
		3. Value of Production .. .. .	899
		<b>§ 12. Oil Shale and Mineral Oil .. .. .</b>	899
		<b>Chapter XVIII.—Agricultural Production—</b>	
		<b>§ 4. Wheat—</b>	
		7. Voluntary Wheat Pools .. .. .	899
		<b>Chapter XXIV.—Labour, Wages, and Prices—</b>	
		(A) PRICES—	
		<b>§ 2. Retail Prices and House Rents .. .. .</b>	901

STATISTICAL SUMMARY.

STATISTICAL SUMMARY, AUSTRALIA.

Heading.	Years.							
	1871.	1881.	1891.	1901.	1911.	1921.	1932.	
Population(a)	Males	928,918	1,247,059	1,736,617	2,004,836	2,382,232	2,798,727	3,356,142
	Females	771,970	1,059,677	1,504,368	1,820,077	2,191,554	2,710,340	3,248,375
	Total	1,700,888	2,306,736	3,240,985	3,824,913	4,573,786	5,509,073	6,604,517
Births	No.	63,625	80,004	110,187	102,945	122,193	136,198	110,933
	Rate	38.00	35.26	34.47	27.16	27.21	24.95	16.94
Deaths	No.	22,175	33,327	47,430	46,330	47,869	54,070	56,755
	Rate	13.24	14.69	14.84	12.22	10.66	9.91	8.66
Marriages	No.	11,623	17,244	23,862	27,753	39,482	46,869	43,634
	Rate	6.94	7.60	7.47	7.32	8.79	8.59	6.66
		1871-72.	1881-82.	1891-92.	1901-02.	1911-12.	1921-22.	1931-32.
<b>Agriculture—</b>								
Wheat	Area, acs.	1,279,778	3,002,064	3,335,528	5,115,965	7,427,834	9,719,042	14,741,313
	Yld., bshl.	11,917,741	21,443,862	25,675,265	38,561,619	71,636,347	129,088,806	190,612,188
	Av. "	9.31	7.16	7.70	7.54	9.64	13.28	12.93
Oats	Area, acs.	225,492	194,816	246,129	461,430	616,794	733,406	1,085,489
	Yld., bshl.	4,251,630	4,795,897	5,726,256	9,789,854	9,561,833	12,147,433	15,194,680
	Av. "	18.85	24.62	23.27	21.22	15.50	16.56	14.00
Barley	Area, acs.	48,164	75,864	68,068	74,511	116,466	298,910	342,396
	Yld., bshl.	726,158	1,353,380	1,178,560	1,519,819	2,056,836	6,085,685	6,290,672
	Av. "	15.08	17.84	17.31	20.40	17.66	20.36	18.37
Maize	Area, acs.	142,078	165,777	284,428	294,849	340,065	305,186	269,448
	Yld., bshl.	4,576,635	5,726,266	9,261,922	7,034,786	8,939,855	7,840,438	7,062,383
	Av. "	32.21	34.54	32.56	23.86	26.29	25.69	26.21
Hay	Area, acs.	303,274	768,388	942,166	1,688,402	2,518,351	2,994,519	2,634,680
	Yld., tons	375,871	767,194	1,067,255	2,024,608	2,867,973	3,902,189	3,167,459
	Av. "	1.24	1.00	1.13	1.20	1.14	1.30	1.20
Potatoes(b)	Area, acs.	67,911	76,265	112,884	109,685	130,463	149,144	145,111
	Yld., tons	212,896	243,216	380,477	322,524	501,459	388,091	397,102
	Av. "	3.13	3.19	3.37	2.94	2.31	2.60	2.74
Sugar Cane(c)	Area, acs.	11,576	19,708	45,444	86,950	101,010	128,350	241,576
	Yld., tons	176,632	349,627	737,573	1,367,802	1,682,250	2,436,890	4,213,453
	Av. "	15.25	17.74	16.23	15.73	16.65	18.99	17.44
Vineyards	Area, acs.	16,253	14,570	48,882	63,677	66,602	92,414	112,961
	Wine, gal.	2,104,000	1,488,000	3,438,000	5,816,087	4,975,147	8,542,573	14,190,522
Total value all agricultural production £ 8,941,000 15,519,000 16,988,000 23,835,000 38,774,000 81,890,000 74,489,000								
<b>Pastoral, dairying, etc.—</b>								
Live Stock	Sheep No.	40,072,955	65,092,719	106,421,068	72,040,211	96,886,234	86,119,068	110,618,893
	Cattle "	4,277,288	8,010,991	11,112,112	8,491,428	11,828,954	14,441,309	12,260,955
	Horses "	701,530	1,088,029	1,584,737	1,620,429	2,278,226	2,438,182	1,775,550
	(a) Pigs "	586,017	703,188	845,888	931,309	1,110,721	960,385	1,167,845
Wool prod., lb. (greasy)		179,000,000	322,759,000	631,587,000	543,131,661	721,298,288	721,678,346	1,006,630,847
Butter production	lb.	(d)	(d)	42,314,585	103,747,295	212,073,745	267,071,340	390,654,070
Cheese	" (e)	(d)	(d)	10,130,945	11,845,153	15,886,712	33,653,003	31,422,973
Bacon and ham	"	(d)	(d)	16,771,886	34,020,629	53,335,092	58,626,469	71,121,740
Total estimated value of pastoral and dairying production £ 20,736,000 29,538,000 39,256,000 36,890,000 72,383,000 119,399,000 103,018,000								
		1871.	1881.	1891.	1901.	1911.	1921.	1932.
<b>Mineral production—</b>								
Gold	£	7,916,627	5,194,390	5,281,861	14,017,538	10,551,624	4,018,685	5,211,802
Silver and lead	£	36,046	45,622	3,736,352	2,248,598	3,022,177	1,539,992	2,399,323
Copper	£	830,242	714,003	367,373	2,215,431	2,564,278	803,957	530,542
Tin	£	24,020	1,145,889	560,502	448,234	1,209,973	418,418	302,086
Zinc	£	369	200	2,979	4,067	1,415,169	283,455	155,928
Coal (Black)	£	330,510	637,865	1,912,353	2,602,733	3,927,360	10,983,757	5,693,224
Total value all mineral production £ 9,190,330 7,820,290 12,074,106 21,816,772 23,302,878 19,977,384 15,613,299								
<b>Forestry production—</b>								
Quantity of local timber sawn or hewn						1921-22.	1931-32.	
1,000 sup. ft.	(d)	(d)	(d)	452,131	604,794	590,495	236,707	

(a) At 31st December.

(b) Partly estimated 1871 and 1881.

(c) Area of productive cane.

(d) Information not available.

(e) Years ended December, except for last column which refers to year ended June.

## STATISTICAL SUMMARY, AUSTRALIA—continued.

Heading.	Years.						
	1871.	1881.	1891.	1901.	1911.	1921-22.	1931-32.
<b>Manufactories—</b>							
No. of factories					14,455	18,023	21,657
Hands employed	No.				311,710	378,540	336,658
Wages paid	£				27,528,377	68,050,861	55,931,818
Value of production	£				51,259,004	121,674,119	110,981,830
Total value of output	£				133,022,004	320,331,765	281,645,785
<b>Shipping—</b>							
Oversea vessels	{ No.	2,748	3,284	3,778	4,028	4,174	3,057
ent. & cleared	{ ton.	1,312,642	2,549,364	4,726,307	6,541,991	9,984,801	11,395,784
<b>Commerce—</b>							
Imports oversea	£	17,017,000	29,067,000	37,711,000	42,434,000	66,967,488	103,066,436 (b)
per head	£	10/3/3	12/16/2	11/16/0	11/13/1	14/18/2	18/14/1
Exports oversea	£	21,725,000	27,528,000	36,043,000	49,696,000	79,482,258	127,846,535 (b)
per head	£	12/19/6	12/2/8	11/5/6	13/2/2	17/13/10	23/4/1
Total oversea trade	£	38,742,000	56,595,000	73,754,000	92,139,000	146,449,746	230,912,971 (b)
per head	£	23/2/9	24/18/10	23/1/6	24/6/1	32/12/0	41/18/2
Customs and excise duties	£	(c)	4,809,326	7,440,860	8,656,530	13,515,005	27,565,199
per head	£	(c)	2/2/5	2/6/7	2/5/8	2/19/2	5/0/1
<b>Principal Oversea Exports (d)—</b>							
Wool	{ lb. (greasy)	176,635,800	328,369,200	619,259,800	518,018,100	720,364,900	927,833,700
	{ £	9,459,629	13,173,026	19,940,029	15,237,454	26,071,193	47,977,044
Wheat	{ cental	479,954	3,218,792	5,876,875	5,131,111	14/18/2	59,968,334
	{ £	193,732	1,189,762	1,938,864	2,774,643	9,641,608	28,644,155
Flour	{ tons	12,988	49,549	33,363	96,814	175,891	359,734
	{ £	170,415	519,635	328,423	589,604	1,391,529	5,519,881
Butter	{ lb.	1,812,700	1,298,800	4,239,500	34,607,400	101,722,100	127,347,400
	{ £	45,813	39,383	206,868	1,451,168	4,637,362	7,968,078
Skins and hides	{ £	100,123	316,878	873,695	1,250,938	3,227,236	3,136,810
Tallow	{ £	914,278	644,149	571,069	677,745	1,935,836	1,441,795
Meats	{ £	566,780	362,965	460,894	2,611,244	4,303,159	5,542,102
Timber (undressed)	{ £	42,586	118,117	38,448	731,301	1,023,960	1,158,166
Gold	{ £	7,184,233	6,445,365	5,703,532	14,315,741	12,045,766	3,483,239
Silver and lead	{ £	37,891	57,954	1,932,278	2,250,253	3,212,584	2,697,130
Copper	{ £	598,538	676,515	417,687	1,619,145	2,345,951	705,358
Coal	{ £	134,355	361,081	645,972	986,957	900,622	1,099,899
<b>Govt. Railways—</b>							
Lgh. of line open, mls.		970	3,832	9,541	12,579	16,078	23,502
Capital cost	£	19,269,786	42,741,350	99,764,090	123,223,779	152,194,603	244,353,233
Gross revenue	£	1,102,650	3,910,122	8,654,085	11,038,468	17,847,837	38,104,630
Working expenses	£	608,332	2,141,735	5,630,182	7,133,617	10,945,727	29,817,970
Per cent. of working expenses on earnings	%	55.17	54.77	65.06	64.63	61.33	78.07
<b>Postal—</b>							
Letters and postcards dealt with	No.	24,382,000	67,640,000	157,297,000	220,853,000	453,063,000	561,973,105 (e)
per head	No.	14.54	29.61	49.07	58.26	100.90	102.01
Newspapers dealt with	No.	3,336,000	3,806,000	85,280,000	102,727,000	141,638,000	140,477,184
per head	No.	7.95	16.66	26.61	27.10	31.54	25.50
<b>Cheque-paying Banks (f)—</b>							
Note circulation	£	2,456,487	3,978,711	4,417,269	3,399,462	3,718,458 (g)	213,868
Coin & bullion held	£	6,168,869	9,108,243	16,712,923	19,780,528	33,470,770	21,626,832
Advances	£	26,039,573	57,732,824	129,741,583	86,352,832	108,578,774	193,435,760
Deposits	£	21,856,959	53,849,455	98,345,338	91,487,148	143,446,910	273,866,737 (h)
<b>Savings Banks (j)—</b>							
Total deposits	£	3,193,285	7,854,480	15,536,592	30,882,645	59,393,682	154,396,051
Aver. per head of population	£	1/18/9	3/10/5	4/18/7	8/3/0	13/8/5	28/0/4
						1921.	1931.
<b>State Schools—</b>							
Number of schools		2,502	4,494	6,231	7,012	8,060	9,445
Teachers	No.	4,641	9,028	12,564	14,500	16,971	26,120
Enrolment	..	236,710	432,320	561,153	638,478	638,850	819,042
Aver. attendance	..	137,767	255,143	350,773	450,246	463,799	666,498

(a) Owing to variation in classification and lack of information effective comparison is impossible.  
 (b) British currency values. The corresponding recorded values were Imports £44,712,868, and Exports £107,967,143.  
 (c) Not available. (d) Australian produce, except gold, which includes re-exports.  
 (e) Includes packets. (f) Figures for the first three years are averages for the December quarter; the remainder for the June quarter. (g) Decrease due to prohibition of re-issue. (h) Includes Commonwealth Savings Bank Deposits. (i) Government "Set off" accounts, Interstate (Commonwealth Bank) excluded. (j) First three years—at 31st December; remainder, 30th June.

# CHRONOLOGICAL TABLE.

## CHRONOLOGICAL TABLE OF CHIEF EVENTS SINCE THE ESTABLISHMENT OF SETTLEMENT IN AUSTRALIA.

NOTE.—The Government was centralized in Sydney, New South Wales, up to 1825, when Tasmania (Van Diemen's Land) was made a separate colony. In the Table, the names now borne by the States serve to indicate the localities.

Year.

- 1788 N.S.W.—Arrival of "First Fleet" at Botany Bay. Land in vicinity being found unsuitable for settlement, the expedition moved to Sydney Cove. Formal proclamation of colony on 7th February. Branch Settlement established at Norfolk Island. French navigator Lapérouse visited Botany Bay. First cultivation of wheat and barley. First grape vines planted.
- 1789 N.S.W.—First wheat harvest at Parramatta, near Sydney. Discovery of Hawkesbury River.
- 1790 N.S.W.—"Second Fleet" reached Port Jackson. Landing of the New South Wales Corps.
- 1791 N.S.W.—Arrival of "Third Fleet." Territorial seal brought by Governor King.
- 1792 N.S.W.—Visit of *Philadelphia*, first foreign trading vessel.
- 1793 N.S.W.—First free immigrants arrived in the *Bellona*. First Australian church opened at Sydney. Tas.—D'Entrecasteaux discovered the Derwent River.
- 1794 N.S.W.—Establishment of settlement at Hawkesbury River.
- 1795 N.S.W.—Erection of the first printing press at Sydney. Descendants of strayed cattle discovered at Cowpastures, Nepean River.
- 1796 N.S.W.—First Australian theatre opened at Sydney. Coal discovered by fishermen at Newcastle.
- 1797 N.S.W.—Introduction of merino sheep from Cape of Good Hope.
- 1798 Tas.—Insularity of Tasmania proved by voyage of Bass and Flinders.
- 1800 N.S.W.—First export of coal. First Customs House in Australia established at Sydney. Flinders' charts published.
- 1801 N.S.W.—First colonial manufacture of blankets and linen.
- 1802 Vic.—Discovery of Port Phillip by Lieut. Murray. S.A.—Discovery of Spencer's and St. Vincent Gulfs by Flinders. Q'land.—Discovery of Port Curtis and Port Bowen by Flinders.
- 1803 N.S.W.—First Australian wool taken to England by Capt. Macarthur. Issue of "The Sydney Gazette," first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimes. Tas.—First settlement formed at Risdon by Lieut. Bowen.
- 1804 N.S.W.—Insurrection of convicts at Castle Hill. Vic.—Abandonment of settlement at Port Phillip. Tas.—Foundation of settlement at Hobart by Collins, and at Yorktown by Colonel Paterson.
- 1805 N.S.W.—First extensive sheep farm established at Camden by Capt. Macarthur. Portion of settlers from Norfolk Island transferred to Tasmania.
- 1806 N.S.W.—Shortage of provisions. Tas.—Settlement at Launceston.
- 1807 N.S.W.—Final transfer of convicts from Norfolk Island. First shipment of merchantable wool (245 lb.) to England.
- 1808 N.S.W.—Deposition of Governor Bligh.
- 1809 N.S.W.—Isaac Nichols appointed to supervise delivery of overseas letters.
- 1810 N.S.W.—Post-office officially established at Sydney, Isaac Nichols first postmaster. First race meeting in Australia at Hyde Park, Sydney. Tas.—First Tasmanian newspaper printed.
- 1813 N.S.W.—Passage across Blue Mountains discovered by Wentworth, Lawson, and Blaxland. Macquarie River discovered by Evans.
- 1814 N.S.W.—Flinders suggested the name "Australia," instead of "New Holland." Creation of Civil Courts.
- 1815 N.S.W.—First steam engine in Australia erected at Sydney. Lachlan River discovered by Evans. Tas.—Arrival of first immigrant ship with free settlers. First export of wheat to Sydney.

- Year.
- 1816 N.S.W.—Botanic Garden formed at Sydney.
- 1817 N.S.W.—Oxley's first exploration inland. Discovery of Lakes George and Bathurst and the Goulburn Plains by Meehan and Hume. First bank in Australia—Bank of New South Wales—opened at Sydney.
- 1818 N.S.W.—Liverpool Plains, and the Peel, Hastings, and Manning Rivers discovered by Oxley, and Port Essington by Captain King.
- 1819 N.S.W.—First Australian Savings Bank opened at Sydney.
- 1820 Tas.—First importation of pure merino sheep.
- 1821 Tas.—Establishment of penal settlement at Macquarie Harbour.
- 1823 N.S.W.—New South Wales Judicature Act passed. Discovery of gold at Fish River by Assistant-Surveyor McBrien. Qld.—Brisbane River discovered by Oxley.
- 1824 N.S.W.—Erection into Crown Colony. Executive Council formed. Establishment of Supreme Court at Sydney, and introduction of trial by jury. First Australian Enactment (Currency Bill) passed by the Legislative Council. Proclamation of freedom of the press. First manufacture of sugar. Vic.—Hume and Hovell, journeying overland from Sydney, arrived at Corio Bay. Qld.—Penal settlement founded at Moreton Bay (Brisbane). Fort Dundas Settlement formed at Melville Island, N. Terr.
- 1825 N.S.W.—Extension of western boundary to 129th meridian. Tas.—Separation of Van Diemen's Land (Tasmania). Qld.—Major Lockyer explored Brisbane River to its source, and discovered coal.
- 1826 N.S.W.—Settlement in Illawarra District. Vic.—Settlement at Corinella, Western Port, formed by Captain Wright.
- 1827 N.S.W.—Colony became self-supporting. Qld.—Darling Downs and the Condamine River discovered by Allan Cunningham. W.A.—Military Settlement founded at King George's Sound by Major Lockyer. First official claim of British Sovereignty over all Australia.
- 1828 N.S.W.—Second constitution. First Census. Sturt's expedition down Darling River. Cotton first grown in Sydney Botanical Gardens. Gas first used at Sydney. Richmond and Clarence Rivers discovered by Captain Rous. Vic.—Abandonment of settlement at Western Port. Qld.—Cunningham discovered a route from Brisbane to the Darling Downs, and explored Brisbane River.
- 1829 N.S.W.—Sturt's expedition down Murrumbidgee River. W.A.—Foundation of settlement at Swan River. Foundation of Perth.
- 1830 N.S.W.—Insurrection of convicts at Bathurst. Sturt, voyaging down Murrumbidgee and Murray Rivers, arrived at Lake Alexandrina. Tas.—Trouble with natives. Black line organized to force aborigines into Tasman's Peninsula, but failed. Between 1830 and 1835, however, George Robinson, by friendly suasion, succeeded in gathering the small remnant of aborigines (203) into settlement on Flinders Island.
- 1831 N.S.W.—Crown lands first disposed of by public competition. Mitchell's explorations north of Liverpool Plains. Arrival at Sydney of first steamer, *Sophia Jane*, from England. SS. *Surprise*, first steamship built in Australia, launched at Sydney. First coal shipped from Australian Agricultural Company's workings at Newcastle, N.S.W. First assisted immigration to N.S.W. S.A.—Wakefield's first colonization committee. W.A.—Appointment of Executive and Legislative Councils.
- 1832 N.S.W.—Savings Bank of N.S.W. established.
- 1833 N.S.W.—First School of Arts established at Sydney.
- 1834 N.S.W.—First settlement at Twofold Bay. Vic.—Settlement formed at Portland Bay by Henty Bros. Qld.—Leichhardt reached Gulf of Carpentaria. S.A.—Formation of the South Australian Association. W.A.—Severe reprisals against natives at Pinjarrah.
- 1835 Vic.—John Batman arrived at Port Phillip; made treaty with the natives for 600,000 acres of land; claim afterwards disallowed by Imperial Government. Foundation of Melbourne.



- Year.
- 1836 N.S.W.—Mitchell's overland journey from Sydney to Cape Northumberland. Vic.—Proclamation of Port Phillip district as open for settlement. S.A.—Settlement founded at Adelaide under Governor Hindmarsh.
- 1837 N.S.W.—Appointment in London of Select Committee on Transportation. Vic.—Melbourne named by Governor Bourke. First overlanders from Sydney arrived at Port Phillip.
- 1838 N.S.W.—Discontinuance of assignment of convicts. Qld.—Settlement of German missionaries at Brisbane. S.A.—“Overlanding” of cattle from Sydney to Adelaide along the Murray route by Hawden and Bonney. Settlement at Port Essington, Northern Territory, formed by Captain Bremer.
- 1839 N.S.W.—Gold found at Vale of Clwydd by Count Strzelecki. S.A.—Lake Torrens discovered by Eyre. Port Darwin discovered by Captain Stokes. W.A.—Murchison River discovered by Captain Grey.
- 1840 N.S.W.—Abolition of transportation to New South Wales. Land regulations—proceeds of sales to be applied to payment for public works and expenditure on immigration. Vic.—Determination of northern boundary. Qld.—Penal settlement broken up and Moreton Bay district thrown open. S.A.—Eyre began his overland journey from Adelaide to King George's Sound.
- 1841 N.S.W.—Gold found near Hartley by Rev. W. B. Clarke. W.A.—Completion of Eyre's overland journey from Adelaide to King George's Sound. Tas.—Renewal of transportation.
- 1842 N.S.W.—Incorporation of Sydney. Vic.—Incorporation of Melbourne. S.A.—Discovery of copper at Kapunda.
- 1843 N.S.W.—First Representative Constitution (under Act of 1842). First Manufacture of tweed. Qld.—Moreton Bay granted legislative representation.
- 1844 S.A.—Sturt's last expedition inland. Qld.—Leichhardt's expedition from Condamine River to Port Essington.
- 1845 N.S.W.—Mitchell's explorations on the Barcoo. Qld.—Explorations by Mitchell and Kennedy. S.A.—Discovery of the Burra copper deposits. Sturt discovered Cooper's Creek.
- 1846 N.S.W.—Initiation of meat preserving. Qld.—Foundation of settlement at Port Curtis. S.A.—Proclamation of North Australia. W.A.—Foundation of New Norcia (Benedictine) Mission.
- 1847 N.S.W.—Iron smelting commenced near Berrima. Overland mail established between Sydney and Adelaide. Vic.—Melbourne created a City. Qld.—Explorations by Leichhardt, Burnett, and Kennedy.
- 1848 Qld.—Leichhardt's last journey. Kennedy speared by the blacks at York Peninsula. Chinese brought in as shepherds.
- 1849 N.S.W.—Indignation of colonists at arrival of convict ship *Hashemy*. Exodus of population to goldfields of California. Vic.—*Randolph* prevented from landing convicts. Qld.—Assignment of convicts per *Hashemy* to squatters on Darling Downs. W.A.—Commencement of transportation to Western Australia.
- 1850 N.S.W.—Final abolition of transportation. First sod of first Australian railway turned at Sydney. Vic.—Gold discovered at Clunes by Hon. W. Campbell. Representative government granted. S.A.—Representative government granted. W.A.—Pearl oysters found by Lieut. Helpman at Saturday Island Shoal. Tas.—Representative government granted. Sydney University founded.
- 1851 N.S.W.—Payable gold discovered by Hargraves at Lewis Ponds and Summerhill Creek. Telegraph first used. Vic.—Separation of Port Phillip—erected into independent colony under the name of Victoria. Discovery of gold in various localities. “Black Thursday,” 6th Feb., a day of intense heat. W.A.—Proclamation of Legislative Council Act.
- 1852 N.S.W.—Arrival of the *Chusan*, first P. and O. mail steamer from England. S.A.—First steamer ascends the Murray River to the junction with the Darling. Tas.—Meeting of first elective Council protests against transportation. Payable gold discovered at The Nook, near Fingal, and at Nine Mile Springs.

- Year.
- 1853 Tas.—Abolition of transportation. Vic.—Melbourne University founded.
- 1854 Vic.—Opening of first Victorian railway—Flinders-street to Port Melbourne. Riots on Ballarat gold-fields. Storming of the Eureka Stockade, 3rd Dec.
- 1855 N.S.W.—Opening of railway—Sydney to Parramatta. Mint opened. Gregory's expedition in search of Leichhardt.
- 1856 N.S.W.—Pitcairn Islanders placed on Norfolk Island. W.A.—A. C. Gregory's expedition in search of Leichhardt.  
Responsible Government in N.S.W., Vic., S.A., and Tas. (Act of 1855).
- 1857 N.S.W.—Wreck of the *Dunbar* (119 lives lost), and *Catherine Adamson* (21 lives lost), at Sydney Heads. Select Committee on Federation. Vic.—Manhood suffrage and vote by ballot. S.A.—Passage of Torrens' Real Property Act.
- 1858 N.S.W.—Establishment of manhood suffrage and vote by ballot. Telegraphic communication between Sydney, Melbourne, and Adelaide. Qld.—Cancona gold rush.
- 1859 Qld.—Proclamation of Queensland as separate colony. Tas.—First submarine cable, via Circular Head and King Island to Cape Otway.
- 1860 Vic.—Burke and Wills left Melbourne and crossed to Gulf of Carpentaria. S.A.—Copper discoveries at Wallaroo and Moonta. McDouall Stuart reached centre of continent and named "Central Mount Stuart."
- 1861 N.S.W.—Anti-Chinese riots at Lambing Flat and Burrangong gold-fields. Opening of first tramway in Sydney. Regulation of Chinese immigration. Vic.—Burke and Wills perished at Cooper's Creek, near Innamincka, S.A.
- 1862 N.S.W.—Abolition of State aid to religion. Real Property Act. S.A.—Stuart crossed the Continent from south to north. W.A.—First export of pearl-shell.
- 1863 Vic.—Intercolonial Conference at Melbourne. S.A.—Northern Territory taken over. W.A.—Initiation of settlement in the North-west district. Henry Maxwell Lefroy discovered and traversed area now comprised in the Coolgardie-Kalgoorlie gold-field.
- 1864 Qld.—First railway begun and opened. First sugar made from Queensland cane. Tas.—First successful shipment of English salmon ova.
- 1865 N.S.W.—Destruction by fire of St. Mary's Cathedral, Sydney.
- 1866 N.S.W.—Passage of Public Schools Act of (Sir) Henry Parkes. S.A.—Introduction of camels for exploration, etc.
- 1867 Vic.—Imposition of protective tariff. Qld.—Discovery of gold at Gympie.
- 1868 N.S.W.—Attempted assassination of the Duke of Edinburgh at Clontarf, near Sydney. W.A.—Arrival of the *Hougomont*, last convict ship. Tas.—First sod of first railway (Launceston and Western) turned by Duke of Edinburgh.
- 1869 W.A.—First telegraph line opened from Perth to Fremantle.
- 1870 N.S.W.—Intercolonial Exhibition opened at Sydney. Imperial troops withdrawn. Vic.—Intercolonial Congress at Melbourne. S.A.—Commencement of transcontinental telegraph.
- 1871 N.S.W.—Permanent military force raised. W.A.—Passage of Elementary Education Act. Forrest's explorations. Tas.—Discovery of tin at Mount Bischoff. Launceston-Western railway opened for traffic.
- 1872 N.S.W.—International Exhibition at Sydney. Vic.—Mint opened. S.A.—Cable from Java to Port Darwin. Completion of transcontinental telegraph line.
- 1873 N.S.W.—Intercolonial Conference at Sydney. First volunteer encampment. Inauguration of mail service with San Francisco.
- 1874 N.S.W.—Triennial Parliaments Act passed. Intercolonial Conference. W.A.—John and Alexander Forrest arrived at Overland Telegraph from Murchison. S.A.—University of Adelaide founded.
- 1875 Qld.—Transfer of Port Albany Settlement to Thursday Island.
- 1876 N.S.W.—Completion of cable—Sydney (La Perouse) to Wellington (Wakapuaka). W.A.—Giles crosses colony from east to west. Tas.—Death of Truganini, last representative of Tasmanian aborigines.
- 1877 W.A.—Opening of telegraphic communication with South Australia.

- Year.
- 1878 Qld.—Restriction of Chinese immigration.  
Introduction of telephone into Australia.
- 1879 N.S.W.—First artesian bore at Killara. International Exhibition at Garden Palace, Sydney. First steam tramway. W.A.—A. Forrest's explorations in the Kimberley district, and discovery of the Fitzroy pastoral country.
- 1880 N.S.W.—Public Instruction Act passed. Vic.—Opening of first Victorian International Exhibition at Melbourne. First Australian Telephone Exchange opened in Melbourne.  
Federal Conference at Melbourne and Sydney.
- 1881 N.S.W.—Further restrictions on Chinese immigration.  
Visit to Australia of T.R.H. Prince Albert Victor and Prince George.
- 1882 N.S.W.—Garden Palace destroyed by fire. W.A.—Nugget of gold found between Roebourne and Cossack.
- 1883 N.S.W.—Discovery of silver at Broken Hill. Completion of railway between New South Wales and Victoria. Qld.—Annexation of New Guinea—repudiated by Imperial authorities.  
Federal Conference held at Sydney. Federal Council created.
- 1884 Federation Bill passed in Victoria and rejected in New South Wales. British protectorate declared over New Guinea.
- 1885 N.S.W.—Military contingent sent to the Sudan. Opening of the Broken Hill Proprietary Silver Mines. W.A.—Gold found by prospectors on the Margaret and Ord Rivers in the Kimberley district. Tas.—Silver-lead discovered at Mount Zeehan.
1886. Tas.—Discovery of gold and copper at Mount Lyell.  
First session of Federal Council met at Hobart on the 26th January.
- 1887 N.S.W.—Disaster at Bulli coal mine (81 lives lost). Peat's Ferry (Hawkesbury River) railway accident. S.A.—International Exhibition at Adelaide. W.A.—Cyclone destroyed nearly the whole pearling fleet off the Ninety-Mile Beach—200 lives lost. Gold discovered at Southern Cross.  
First "Colonial" Conference in London. Australasian Naval Defence Force Act passed.
- 1888 N.S.W.—Centennial celebrations. Restrictive legislation against Chinese, imposing poll-tax of £100. Vic.—Second Victorian International Exhibition held at Melbourne. Qld.—Railway communication opened between Sydney and Brisbane.  
Conference of Australian Ministers at Sydney to consider question of Chinese immigration. First meeting of the Australasian Association for the Advancement of Science held in Sydney.
- 1889 Qld.—Direct railway communication established between Brisbane and Adelaide. W.A.—Framing of new Constitution. Tas.—University of Tasmania founded.
- 1890 W.A.—Responsible Government granted.  
Meeting at Melbourne of Australasian Federation Conference.
- 1891 N.S.W.—Election to Legislative Assembly of 35 Labour members. Arrival of Australian Auxiliary Squadron. Cessation of assisted immigration. W.A.—Discovery of gold on the Murchison.  
First Federal Convention in Sydney: draft bill framed and adopted.
- 1892 W.A.—Discovery of gold by Messrs. Bayley and Förd at Coolgardie.
- 1893 N.S.W.—Departure by the *Royal Tar* of colonists for "New Australia."  
Financial crisis, chiefly affecting the eastern States.
- 1895 N.S.W.—Free-trade tariff. Land and income taxes introduced.  
Conference of Premiers on Federation at Hobart.
- 1896 N.S.W.—People's Federal Convention at Bathurst.
- 1897-8 Sessions of Federal Convention at Adelaide, Sydney, and Melbourne.
- 1898 N.S.W.—First surplus of wheat for export.  
Draft Federal Constitution Bill submitted to electors in Victoria, New South Wales, South Australia, and Tasmania. Requisite statutory number of votes not obtained in New South Wales.

- Year.
- 1899 First contingent of Australian troops sent to South Africa. Conference of Premiers in Melbourne to consider amendments to Federal Constitution Bill. Referendum—Bill accepted by New South Wales, Victoria, Queensland, South Australia, and Tasmania. First Labour Government (Queensland).
- 1900 N.S.W.—Old-age pensions instituted.  
 • Contingents of naval troops sent to China. Commonwealth Constitution Act received Royal Assent, 9th July. Proclamation of Commonwealth signed, 17th September. Mr. (afterwards Sir) Edmund Barton formed first Federal Ministry.
- 1901 Vic.—Old-age pensions instituted.  
 Proclamation of the Commonwealth at Sydney. First Federal Parliament opened at Melbourne by the Duke of Cornwall and York. Interstate freetrade established.
- 1902 N.S.W.—Disastrous explosion at Mount Kembla Colliery—95 lives lost. W.A.—Opening of pumping station at Northam in connexion with Gold-fields water supply. Completion of Pacific Cable (all-British).  
 First Federal Tariff.
- 1903 W.A.—Coolgardie and Kalgoorlie Water Supply Scheme completed.  
 Inauguration of the Federal High Court.
- 1905 N.S.W.—Re-introduction of assisted immigration.
- 1906 Wireless telegraphy installed between Queenscliff, Vic., and Devonport, Tas. Papua taken over by Commonwealth.
- 1907 N.S.W.—Telephone, Sydney to Melbourne, opened. First telephone trunk line service between Capital Cities, i.e., Sydney and Melbourne.  
 Imperial Conference in London.
- 1908 Canberra chosen as site of Federal Capital. Visit of U.S.A. fleet to Australia.
- 1909 Imperial Defence Conference in London—Commonwealth ordered two destroyers and one first-class cruiser for fleet unit. Visit of Lord Kitchener to report and advise on Commonwealth military defence. Loss of the *Waratah* with 300 passengers and crew. Queensland University founded.
- 1910 Referendum on financial relations between the Commonwealth and the States. Penny Postage. Arrival of the *Yarra* and *Parramatta*, first vessels of Australian navy. Australian Notes Act passed and first Commonwealth notes issued. Admiral Sir R. Henderson visited Australia to advise on naval defence.
- 1911 First Federal Census. Transfer of Northern Territory to Commonwealth. Introduction of compulsory military training. Launch of Commonwealth destroyer *Warrego* at Sydney. Establishment of penny postage to all parts of British Empire. University of Western Australia founded.
- 1912 Opening of Commonwealth Bank. First payments of Maternity Bonus. First sod turned at Port Augusta of Trans-Australian Railway (Port Augusta to Kalgoorlie).
- 1913 Arrival of battle cruiser *Australia*, and cruisers *Melbourne* and *Sydney*. Federal Capital named Canberra and foundation stone laid. Appointment of Interstate Commission.
- 1914 Visit of General Sir Ian Hamilton to report on military defence scheme. Double dissolution of Federal Parliament. Visit of British Association for the Advancement of Science.  
 European War declared 4th August. Australian Navy transferred to British Navy. Australian offer to equip and furnish 20,000 troops accepted. German possessions in South-West Pacific seized by Australian Naval and Military Expeditionary Force. German cruiser *Emden* destroyed by H.M.A.S. *Sydney* at Cocos Islands, 9th November. First contingent landed in Egypt. Australian and New Zealand Army Corps (A.N.Z.A.C.) formed under Sir William Birdwood.

Year.

- 1915 Opening of Broken Hill Proprietary's Ironworks at Newcastle, N.S.W. Navy Department created.  
 Australian and New Zealand troops landed at Gallipoli, 25th April. Battle of Sari Bair (Lone Pine), 6th-10th August. Evacuation, 18th-20th December. Australian warships with Grand Fleet, in Atlantic, Malaysia, and elsewhere overseas during remainder of war.
- 1916 Record wheat harvest (180,000,000 bushels). Purchase of steamships by the Commonwealth.  
 Australian and New Zealand mounted troops organized in mounted divisions and camel corps, operating thereafter in Egypt, Palestine, and Syria. Battle of Romani, 4th August. Other troops with reinforcements organized as four infantry divisions (1st, 2nd, 4th, and 5th) with some other units, and transferred to France. Fromelles, 19th July; the Somme, 1st July-18th November (Pozières, Mouquet Farm, Flers). 3rd Division, formed in Australia, landed in France. First proposal for compulsory military service defeated by referendum.
- 1917 National Ministry formed. Kalgoorlie-Port Augusta railway completed.  
 German withdrawal from Somme; Arras offensive (Bullecourt, 11th April and 3rd May); Messines, 7th June; Third Battle of Ypres, 1st July-10th November (Menin Road, Polygon Wood, Broodseinde, Passchendaele). Palestine-Gaza, 26th March, 19th April, 31st October (Beersheba). Australian Flying Corps operating with R.F.C. in Palestine and France. Second proposal for compulsory military service defeated by referendum.
- 1918 Population of Australia reaches 5,000,000. Australia House (Strand, London) opened by the King.  
 Five Australian divisions in France formed into army corps, 1st January. Sir William Birdwood succeeded by Sir John Monash, 30th May. Defensive campaign on Somme, 21st March-25th April, Dernancourt, Villers-Bretonneux; Battles of the Lys, 9th-29th April (Hazebrouck); Hamel, 4th July; Battle of Amiens, 8th August; Mont St. Quentin, 31st August; Hindenburg Line, 18th September-5th October. Palestine-Megiddo, 19th September; Damascus, 1st October. Armistice with Germany, 11th November. Repatriation Department created.
- 1919 Mr. Hughes and Mr. Cook represented Australia at Peace Conference. Return of Australian troops. Aerial flight England to Australia by Capt. Sir Ross Smith and Lieut. Sir Keith Smith. Visit to Australia of General Sir W. Birdwood. Visit of Admiral Lord Jellicoe.
- 1920 Visit to Australia of H.R.H. the Prince of Wales. Wholesale prices rose to more than double the 1914 level.
- 1921 Second Commonwealth Census. Germany's indemnity fixed (Australia's share approximately £63,000,000). Mandate given to Australia over Territory of New Guinea. First direct wireless press message, England to Australia.
- 1922 First lock on River Murray opened at Blanchetown, South Australia. Queensland Legislative Council abolished.
- 1923 First sod, site of Federal Parliament House at Canberra, turned.
- 1924 H.M.A.S. *Australia* sunk. Visit of British cruiser squadron. Directorate of Commonwealth Bank appointed. Loan by British Government of £34,000,000 for Imperial migration and development. Australian Loan Council formed.
- 1925 Visit of American fleet. Solar Observatory established at Canberra. Brisbane-Kyogle railway commenced. North Shore (Sydney) Bridge commenced.
- 1926 Population of Australia reached 6,000,000. Council for Scientific and Industrial Research established. Imperial Conference. Dominion Status defined; "Paterson" butter marketing plan came into operation.

- Year.
- 1927 Transfer of Seat of Federal Government from Melbourne to Canberra. New Parliament House opened by H.R.H. the Duke of York. Beam Wireless established.
- 1928 Aerial flights from England to Australia by Mr. Bert Hinkler (solo); from America to Australia, and from Australia to New Zealand and return by Messrs. Kingsford Smith and Ulm. Visit of British Economic Mission to report on the development of Australian resources. Financial agreement of Commonwealth and States; Loan Council reconstituted; State debts to be taken over; Referendum carried, November.
- 1929 Arrival of H.M.A.S. *Canberra*. Beginning of fall in export prices. Commonwealth Bank empowered to mobilize gold reserves. Substantial export of gold reserves towards end of year. Number of telephones connected in Commonwealth reached 500,000.
- 1930 Wireless phone service with other countries inaugurated. Miss Amy Johnson, first woman to fly solo from United Kingdom to Australia. East to west Trans-Atlantic flight of Capt. Kingsford Smith and an international crew in "Southern Cross" plane. Export prices fell to half 1928 level. Cessation of overseas loans. Tariff embargoes and rationing of imports. Visit of Sir Otto Niemeyer, of Bank of England, to discuss financial questions. Heavy export of gold reserves. Exchange Pool formed. £28,000,000 Conversion Loan fully subscribed. Gold bonus granted. Net emigration of 11,408. Government deficits total nearly £11,000,000. First Australian—Right Hon. Sir Isaac Alfred Isaacs, P.C., G.C.M.G., Chief Justice of the High Court—appointed Governor-General of the Commonwealth. Telephone trunk line service established between Adelaide and Perth linking up the whole of the mainland States by telephone.
- 1931 Depression continues; Australia substantially off gold standard with exchange rate at 130 in January; 10 per cent. cut in Federal basic wage. First experimental air mail England to Australia and return. New South Wales Savings Bank suspension and subsequent absorption by Commonwealth Bank. Postponement of sinking fund payments on war debt to British Government for two years. Initiation of Premiers' Conference plan to meet the financial situation, i.e., by conversion of internal loans at lower interest rates, economy in governmental expenditure, etc.; bank deposit rates lowered. Commonwealth Bank Act amended to provide for temporary lower reserve against notes; substantial export of gold reserves. Hoover Moratorium on War Debts. England departs from gold standard in September; depreciation of Australian £1 on sterling continued. Wheat bounty granted. Commonwealth Bank assumes control of exchange rate and lowers it to 125. Net emigration of 12,061. Government deficits total £25,500,000, 1930-31. Death of General Sir John Monash.
- 1932 Sydney Harbour Bridge opened. Australian Broadcasting Commission established. New South Wales Government default in interest payments made good by Commonwealth Government; conflict of Commonwealth and New South Wales governments. Lang Ministry dismissed in New South Wales. Emergency restrictions on imports relaxed. Power taken to hold note reserve in sterling securities, and subsequent shipping of gold, to the United Kingdom. Governmental economy and wage reductions in New South Wales. Imperial Economic Conference at Ottawa, with consequential tariff agreements. Sugar Agreement modified. Taxation reductions and assistance to wheat-growers. Substantial fall in net emigration. Government deficits reduced to £19,500,000 for 1931-32. Strike in Textile Industry.
- 1933 Third Commonwealth Census. Imperial Air-mail "Astraea" arrived. World Economic Conference in London. Rt. Honorable S. M. Bruce appointed High Commissioner for Australia in London. Australia elected as Member of League of Nations. Secession Referendum (Western Australia). Referendum for reduction and limitation of number of members of Legislative Council (New South Wales). Disarmament Conference in London.

# OFFICIAL YEAR BOOK

OF THE

## COMMONWEALTH OF AUSTRALIA, 1932,

AND EARLIER YEARS.

### CHAPTER I.

#### DISCOVERY, COLONIZATION, AND FEDERATION OF AUSTRALIA.

##### § 1. General.

Previous issues of the *Official Year Book*, up to and including No. 22, contained in this Chapter some account of the traditional ideas regarding the existence of a "Terra Australis," together with brief details relating to the discovery and annexation of the Australian continent, but it is not proposed to repeat this information in the present volume. (It may be noted here that Captain Cook's arrival and landing at Botany Bay took place on the same day, i.e., 29th April, 1770. See *Official Year Book No. 22*, page 3.)

##### § 2. Establishment of the Commonwealth of Australia.

1. *General.*—On the 1st January, 1901, the six colonies (now known as States) and the Northern Territory were federated under the name of the "Commonwealth of Australia." The dates of creation and the areas of its component parts, as determined on the final adjustment of their boundaries, are shown in the following table:—

##### THE COMMONWEALTH OF AUSTRALIA.—AREA, ETC., OF COMPONENT PARTS.

State.	Year of Formation into Separate Colony.	Present Area in Square Miles.	State.	Year of Formation into Separate Colony.	Present Area in Square Miles.
New South Wales(a)	1786	310,372	Tasmania ..	1825	26,215
Victoria ..	1851	87,884	Northern Territory	1863	523,620
Queensland ..	1859	670,500			
South Australia ..	1834	380,070	Area of the Commonwealth ..	..	2,974,581
Western Australia	1829	975,920			

(a) Including the Federal Capital Territory embracing an area of 912 square miles, and 28 square miles at Jervis Bay. See par. 3, page 2.

2. *Transfer of the Northern Territory to the Commonwealth.*—On the 7th December, 1907, the Commonwealth and the State of South Australia entered into an agreement for the surrender to and acceptance by the Commonwealth of the Northern Territory, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under the Northern Territory Surrender Act 1907 (assented to on the 14th May, 1908), and by the Commonwealth Parliament under the Northern Territory Acceptance Act 1910 (assented to on the 16th November, 1910). The Territory accordingly was transferred to the Commonwealth by proclamation on the 1st January, 1911.

3. **Transfer of the Federal Capital Territory to the Commonwealth.**—On the 18th October, 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 912 square miles as the seat of Government of the Commonwealth. In December, 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on the 5th December, 1910, a proclamation was issued vesting the Territory in the Commonwealth on and from the 1st January, 1911. By the Jervis Bay Territory Acceptance Act 1915, which was assented to on 12th July, 1915, an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth.

4. **Transfer of British New Guinea or Papua.**—Under the administration of the Commonwealth, but not included in it, is British New Guinea or *Papua*, finally annexed by the British Government in 1884. This territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on the 1st September, 1906, under the authority of the Papua Act (Commonwealth) of 16th November, 1905. The area of Papua is about 90,540 square miles.

5. **Transfer of Norfolk Island.**—Although administered for many years by the Government of New South Wales, this island was, until 1st July, 1914, a separate Crown colony. On that date it was taken over by the Federal Parliament as a territory of the Commonwealth.

### § 3. The Exploration of Australia.

A fairly complete, though brief, account of the Exploration of Australia was given in Year Book No. 2 (pp. 20 to 39), and a summary of the more important facts relating to the subject was embodied in this Chapter in succeeding issues up to and including No. 22.

### § 4. The Constitutions of the States and of the Commonwealth.

1. **General.**—Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the Federal movement in Australia, were embodied in this Chapter in issues of the Official Year Book up to No. 22. In this issue the Constitution of the Commonwealth as at present amended is printed in full, together with the Financial Agreement of 1928 between the Commonwealth and States, made under the provisions of Section 105A of the Constitution.

2. **Commonwealth Constitution Act.**—The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely, "An Act to constitute the Commonwealth of Australia," as amended by the Constitution Alteration (Senate Elections) 1906, the Constitution Alteration (State Debts) 1909, and the Constitution Alteration (State Debts) 1928 is given *in extenso* hereunder.

#### THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT, 63 & 64 VICT., CHAPTER 12.

*An Act to constitute the Commonwealth of Australia. [9th July, 1900.]*

**W**HEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established :

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian Colonies and possessions of the Queen :

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows :—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.
2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.



3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.

4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.

5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.

6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.

"The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called "a State."

"Original States" shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

#### THE CONSTITUTION.

This Constitution is divided as follows:—

Chapter	I.—The Parliament :
Part	I.—General :
Part	II.—The Senate :
Part	III.—The House of Representatives :
Part	IV.—Both Houses of the Parliament :
Part	V.—Powers of the Parliament :
Chapter	II.—The Executive Government :
Chapter	III.—The Judicature :
Chapter	IV.—Finance and Trade :
Chapter	V.—The States :
Chapter	VI.—New States :
Chapter	VII.—Miscellaneous :
Chapter	VIII.—Alteration of the Constitution.
	The Schedule.

## CHAPTER I.—THE PARLIAMENT.

## PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called "The Parliament," or "The Parliament of the Commonwealth."

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

## PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State. The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the Senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the Senators of the first class shall become vacant at the expiration of [the third year] *three years,\** and the places of those of the second class at the expiration of [the sixth year] *six years,\** from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before\** the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July\** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July\** preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a Senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

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\* As amended by section 2 of the Constitution Alteration (Senate Elections) 1906. The words in square brackets have been repealed; amendments are shown in italics.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

#### PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators:
- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales ..	23	South Australia ..	..	6
Victoria .. ..	20	Tasmania .. ..	..	5
Queensland .. ..	8			

Provided that if Western Australia is an Original State, the numbers shall be as follows:—

New South Wales ..	26	South Australia ..	..	7
Victoria .. ..	23	Western Australia ..	..	5
Queensland .. ..	9	Tasmania .. ..	..	5

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provisions, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.\*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

- (i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen:
- (ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, of a colony which has become or becomes a State, or of the Commonwealth, or of a State.

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

#### PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

\* The franchise qualification was determined by the Commonwealth Franchise Act 1902.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power : or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer : or
- (iii) Is an undischarged bankrupt or insolvent : or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth : or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons :

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section : or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors : or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State :

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House, shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.\*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

\* By the Parliamentary Allowances Act 1907, the amount of the allowance was increased to £600 a year; and by the Parliamentary Allowances Act 1920 to £1,000 a year. (The latter Act also apportioned special allowances to the President of the Senate; the Speaker of the House of Representatives; the Chairman of Committees in each House; and the Opposition Leader in each House.) The Income Tax (Salaries) Act 1930, provided for a tax of 10 per cent. on each periodical payment of the allowance. This Act was repealed by the Financial Emergency Act 1931, which reduced the amount of the allowance to £800 a year. The Financial Emergency Act 1932 amended the amount of the allowance to £750 a year.

50. Each House of the Parliament may make rules and orders with respect to—
- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld :
  - (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

## PART V.—POWERS OF THE PARLIAMENT.\*

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) Trade and commerce with other countries, and among the States :
- (ii) Taxation ; but so as not to discriminate between States or parts of States :
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth :
- (iv) Borrowing money on the public credit of the Commonwealth :
- (v) Postal, telegraphic, telephonic, and other like services :
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth :
- (vii) Lighthouses, lightships, beacons and buoys :
- (viii) Astronomical and meteorological observations :
- (ix) Quarantine :
- (x) Fisheries in Australian waters beyond territorial limits :
- (xi) Census and statistics :
- (xii) Currency, coinage, and legal tender :
- (xiii) Banking, other than State banking ; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money :
- (xiv) Insurance, other than State insurance ; also State insurance extending beyond the limits of the State concerned :
- (xv) Weights and measures :
- (xvi) Bills of exchange and promissory notes :
- (xvii) Bankruptcy and insolvency :
- (xviii) Copyrights, patents of inventions and designs, and trade marks :
- (xix) Naturalization and aliens :
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth :
- (xxi) Marriage :
- (xxii) Divorce and matrimonial causes ; and in relation thereto, parental rights, and the custody and guardianship of infants :
- (xxiii) Invalid and old-age pensions :
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States :
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States :
- (xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws :
- (xxvii) Immigration and emigration :
- (xxviii) The influx of criminals :
- (xxix) External affairs :
- (xxx) The relations of the Commonwealth with the islands of the Pacific :
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws :
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth :

\* Particulars of proposed laws which were submitted to referenda are referred to in Chapter III, General Government.

- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State :
- (xxxiv) Railway construction and extension in any State with the consent of that State :
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State :
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides :
- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law :
- (xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia :
- (xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes :
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth :
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed laws so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provisions therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only ; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.



57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

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## CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.\*

66. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.\*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth :—

Posts, telegraphs, and telephones :	Lighthouses, lightships, beacons, and buoys :
Naval and military defence :	Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

### CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.

72. The Justices of the High Court and of the other Courts created by the Parliament—

(i) Shall be appointed by the Governor-General in Council :

(ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity :

(iii) Shall receive such remuneration as the Parliament may fix ; but the remuneration shall not be diminished during their continuance in office.

73. The High Court shall have jurisdiction, with such exception and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

(i) Of any Justice or Justices exercising the original jurisdiction of the High Court :

(ii) Of any other federal court, or court exercising federal jurisdiction ; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council :

(iii) Of the Inter-State Commission,† but as to questions of law only :

and the judgment of the High Court in all such cases shall be final and conclusive.

\* By the Ministers of State Acts 1915 and 1917, the Ministers of State may exceed seven, but shall not exceed nine. £15,300 annually was allotted by these Acts for their salaries ; and £800 per annum each was added by the Parliamentary Allowances Act 1920. The Income Tax (Salaries) Act 1930 provided for a tax of 15 per cent. on each periodical payment of salary and allowance. This Act was repealed by the Financial Emergency Act 1931, which reduced the abovementioned amounts to £11,857 10s. 0d. and £620 respectively. The Financial Emergency Act 1932 amended the last mentioned amounts to £10,710 and £560 respectively.

† See note\* on page 16.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits inter se of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits inter se of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

- (i) Arising under any treaty :
- (ii) Affecting consuls or other representatives of other countries :
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party :
- (iv) Between States, or between residents of different States, or between a State and a resident of another State :
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth :

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation :
- (ii) Arising under any laws made by the Parliament :
- (iii) Of Admiralty and maritime jurisdiction :
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court :
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States :
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

## CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary;
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth;
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament;
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
  - (a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth ;
  - (b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

- (i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State :
- (ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.\*

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

(i) Shall be appointed by the Governor-General in Council:

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\* The Commission was brought into existence in 1913, under Act No. 33 of 1912, by the appointment of Commissioners for seven years. When this period expired no fresh appointments were made.

- (ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity :
- (iii) Shall receive such remuneration as the Parliament may fix ; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],\* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof ; and the State shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (i) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

- (a) *the taking over of such debts by the Commonwealth ;*
- (b) *the management of such debts ;*
- (c) *the payment of interest and the provision and management of sinking funds in respect of such debts ;*
- (d) *the consolidation, renewal, conversion, and redemption of such debts ;*
- (e) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth ; and*
- (f) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(ii) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(iii) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(iv) *Any such agreement may be varied or rescinded by the parties thereto.*

(v) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(vi) *The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.*

#### CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

\* Under section 2 of the Constitution Alteration (State Debts) 1909, the words in square brackets are omitted.

† Under section 2 of the Constitution Alteration (State Debts) 1928, the Constitution was amended by the insertion of this section.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State; and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

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## CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.



122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

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#### CHAPTER VII.—MISCELLANEOUS.

125. The seat of government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

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#### CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

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#### SCHEDULE.

##### OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. So HELP ME GOD!

##### AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. (NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

3. **The Royal Proclamation.**—The preceding Act received the Royal assent on the 9th July, 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on the 17th September, 1900, constituted the Commonwealth as from the 1st January, 1901; it reads as follows:—

BY THE QUEEN.  
A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of Australia," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales, Victoria, South Australia, Queensland, and Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales, Victoria, South Australia, Queensland, Tasmania, and Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

4. **Financial Agreement, 1928.**—Whereas with a view to making provision for the adjustment of Commonwealth and State financial relations the general principle of a draft scheme was affirmed by a Conference of Commonwealth and State Ministers in Melbourne which commenced on the sixteenth day of June One thousand nine hundred and twenty-seven ;

And whereas permanent effect cannot be given to the proposals contained in the said scheme unless the Constitution of the Commonwealth is altered so as to confer on the Parliament of the Commonwealth power to make laws for carrying out or giving permanent effect to such proposals ;

And whereas pending the submission to the electors of a proposed law for the alteration of the said Constitution as aforesaid and in order to obtain immediately some of the advantages which would result from united action by adoption of the said scheme the Commonwealth and the States have agreed that for the period commencing on the first day of July One thousand nine hundred and twenty-seven and ending on the thirtieth day of June One thousand nine hundred and twenty-nine certain of the proposed provisions of the said scheme shall be temporarily adopted :

Now this Agreement Witnesseth :

PART I.

1. This Agreement shall have no force or effect and shall not be binding on any party unless and until it is approved by the Parliaments of the Commonwealth and of the States.

2. DEFINITIONS.

In this Agreement—

“ *Net Public debt of a State existing on 30th June, 1927,*” means in respect of each State the amount of debt set forth hereunder opposite to the name of that State, viz. :—

	£
New South Wales .. .. .	234,088,501
Victoria .. .. .	136,949,942
Queensland .. .. .	101,977,855
South Australia .. .. .	84,834,364
Western Australia .. .. .	61,060,675
Tasmania .. .. .	22,434,060
	641,345,397

The said amount of the net public debt of each State includes the debts of that State secured by—

- (i) Inscribed Stock, including Local Inscribed Stock and Government Inscribed Stock ;
- (ii) Instalment Stock ;
- (iii) Registered Stock ;
- (iv) Funded Stock ;
- (v) Stock payable to bearer ;
- (vi) Bonds, including registered bonds ;
- (vii) Debentures, including registered debentures and instalment debentures ;
- (viii) Treasury Bills not repayable within twelve months from the date of issue ; or
- (ix) Fixed deposit receipts or special deposit receipts for moneys borrowed for other than temporary purposes ;

issued or created by the State or by or on behalf of a Colony the predecessor of the State in respect of moneys borrowed by the Colony or State together with debts of the State to the Commonwealth of the amount set out respectively hereunder opposite to the name of the State so far as those last-mentioned debts are not included by being secured in manner aforesaid :—

	£
New South Wales .. .. .	12,553,698
Victoria .. .. .	23,688,269
Queensland .. .. .	16,082,583
South Australia .. .. .	18,446,197
Western Australia .. .. .	16,739,872
Tasmania .. .. .	3,948,613
	91,459,232

after deducting therefrom the amount for which the Commonwealth by this Agreement assumes liability under Part III., Clause 4, of this Agreement and the amount of any moneys or securities standing to the credit of a sinking fund, redemption fund, or a fund of a like nature of the State as on 30th June, 1927, and does not include any moneys raised by the State by way of overdraft, fixed deposit, or special deposit for temporary purposes only.

The said sum of £234,088,501 (being the amount of the debt of New South Wales above-mentioned) comprises the debts referred to in, and has been computed in the manner shown in, the statement signed by representatives of the Commonwealth and of New South Wales.

“*Gross Public Debt of a State existing on 30th June, 1927,*” means in respect of each State the amount of debt set forth hereunder opposite to the name of that State, viz. :—

	£
New South Wales .. .. .	239,441,363
Victoria .. .. .	144,844,530
Queensland .. .. .	105,259,916
South Australia .. .. .	87,614,005
Western Australia .. .. .	70,705,913
Tasmania .. .. .	24,254,688
	672,120,415

The said amount of the gross public debt of each State includes the net public debt of that State together with the amount for which the Commonwealth by this Agreement assumes liability under Part III., Clause (4), of this Agreement and the amount of any moneys or securities standing to the credit of any sinking fund redemption fund or fund of a like nature of the State as on 30th June, 1927.

“*Transferred Properties*” means the properties mentioned or specified in the Schedule of Transferred Properties signed by representatives of the Commonwealth and the States as revised to the 30th June, 1927, being properties which became vested in the Commonwealth pursuant to Section 85 (i) of the Constitution of the Commonwealth.

“*The Loan Council*” means the Australian Loan Council created in pursuance of this Agreement.

“*Bondholder*” means an owner of any—

- (i) Inscribed Stock, including Local Inscribed Stock and Government Inscribed Stock ;
- (ii) Instalment Stock ;
- (iii) Registered Stock ;
- (iv) Funded Stock ;
- (v) Stock payable to bearer ;
- (vi) Bonds, including registered bonds ;
- (vii) Debentures including registered debentures and instalment debentures ;
- (viii) Treasury Bills not repayable within twelve months from the date of issue or
- (ix) Fixed deposit receipts or special deposit receipts for moneys borrowed for other than temporary purposes ;

issued or created by a State or by or on behalf of a Colony the predecessor of the State in respect of borrowed moneys but does not include the Commonwealth.

### 3. AUSTRALIAN LOAN COUNCIL.

(a) There shall be an Australian Loan Council, which shall consist of one Minister of State of the Commonwealth to be appointed in writing from time to time by the Prime Minister of the Commonwealth to represent the Commonwealth, and one Minister of State of each State to be appointed in writing from time to time by the Premier of that State to represent that State. Provided that, if in the opinion of the Prime Minister or of any Premier of a State, special circumstances exist at any time which make it desirable so to do, a person who is not a Minister may instead of a Minister be appointed by the Prime Minister or the Premier as the case may be to represent the Commonwealth or a State as a member of the Loan Council. The name of each person appointed to represent a State shall be notified in writing by the Premier of that State to the Prime Minister.

(b) The member representing the Commonwealth on the Loan Council shall hold office during the pleasure of the Prime Minister of the Commonwealth and a member representing a State shall hold office during the pleasure of the Premier of the State which the member was appointed to represent.

(c) A decision in which all the members for the time being of the Loan Council concur shall be a unanimous decision of the Loan Council notwithstanding any vacancy then existing in its membership.

(d) A meeting of the Loan Council may at any time be convened by the member representing the Commonwealth, and shall be so convened upon the request of at least three members representing States.

(e) A majority of the members of the Loan Council shall constitute a quorum of the Loan Council for the exercise of its powers at any meeting. Provided that—

- (i) a member may at any time appoint in writing a deputy to act in his absence ; and any deputy so appointed may in the absence of the member exercise all the powers and functions of the member and his presence shall be deemed the presence of the member ; and
- (ii) an absent member who has not appointed a deputy may vote by letter or by telegram, and in such case that member shall be counted as being present in relation only to the questions on which he has voted.

(f) The Loan Council may make rules of procedure including rules relating to places, times, and notices of meetings, and conduct of business at meetings, and from time to time may alter such rules.

(g) The Commonwealth and each State will from time to time while Part II. of this Agreement is in force, and while Part III. of this Agreement is in force, submit to the Loan Council a programme setting forth the amount it desires to raise by loans for each financial year for purposes other than the conversion, renewal or redemption of existing loans or temporary purposes. Each programme shall state the estimated total amount of such loan expenditure for the year, and the estimated amount of repayments which will be available towards meeting that expenditure. Any revenue deficit

to be funded shall be included in such loan programme, and the amount of such deficit shall be set out. Loans for Defence purposes approved by the Parliament of the Commonwealth shall not be included in the Commonwealth's loan programme or be otherwise subject to this agreement.

(*h*) If the Loan Council decides that the total amount of the loan programme for the year cannot be borrowed at reasonable rates and conditions it shall decide the amount to be borrowed for the year, and may by unanimous decision allocate such amount between the Commonwealth and the States.

(*i*) If the members of the Loan Council fail to arrive at a unanimous decision under the last preceding sub-clause allocating the amount to be borrowed for any year, the amount to be borrowed for that year shall be allocated as follows :—

- (i) The Commonwealth shall, if it so desires, be entitled to have one-fifth or any less proportion of such amount allocated to the Commonwealth ; and
- (ii) Each State shall be entitled to have allocated to it a sum (being a portion of the balance of such amount) bearing to the balance of such amount the same proportion which the net loan expenditure of that State in the preceding five years bears to the net loan expenditure of all the States during the same period. Provided that any State may, if it so desires, have allocated to it a sum less than the sum to which it is entitled under this sub-clause or no sum, and that when a less sum or no sum has been allocated to any State or States in manner aforesaid the amount then remaining available for allocation shall be allocated to the other States in the proportion which the net loan expenditure of each of such other States in the preceding five years bears to the net loan expenditure of all such other States during the same period. For the purposes of this sub-clause net loan expenditure does not include expenditure for the conversion, renewal, or redemption of loans, but means the gross other loan expenditure of a State less any amounts of such expenditure repaid to the State other than moneys repaid to the State in manner stated in Part II., clause 4 (*e*), or Part III., clause 3 (*i*), of this Agreement.

(*j*) If the total amount to be borrowed as aforesaid for any year is to be borrowed by means of more than one loan the Loan Council may by unanimous decision apportion between the Commonwealth and the States the amount to be borrowed by each such loan other than the loan by means of which the balance of the total amount to be borrowed as aforesaid for the year is borrowed.

(*k*) If the members of the Loan Council fail to arrive at a unanimous decision under the last preceding sub-clause apportioning the amount to be borrowed as aforesaid by any loan the amount to be borrowed by that loan shall be apportioned between the Commonwealth and the States in proportion to the amount then to be borrowed as aforesaid for the Commonwealth and for each State for the year.

(*l*) The Commonwealth and each State will also from time to time, while Part II. of this Agreement is in force and while Part III. of this Agreement is in force, submit to the Loan Council a statement setting out the amount it requires for each financial year for the conversion, renewal or redemption of existing loans.

(*m*) If the members of the Loan Council fail to arrive at a unanimous decision on any matter other than the matters referred to in sub-clauses (*h*) and (*j*) of clause 3 and sub-clause (*b*) of clause 4 of this part of this Agreement, the matter shall be determined by a majority of votes of the members.

On every question for decision by the Loan Council the member representing the Commonwealth shall have two votes and a casting vote, and each member representing a State shall have one vote.

(*n*) A decision of the Loan Council in respect of a matter which the Loan Council is by this Agreement empowered to decide shall be final and binding on all parties to this Agreement.

(*o*) In this clause the expressions "Prime Minister" and "Premier" include the persons for the time being respectively acting as such.

## 4. FUTURE BORROWINGS OF COMMONWEALTH AND STATES.

(a) Except in cases where the Loan Council has decided under sub-clause (b) of this clause that moneys shall be borrowed by a State, the Commonwealth, while Part II. or Part III. of this Agreement is in force, shall, subject to the decisions of the Loan Council and subject also to clauses 5 and 6 of this Part of this Agreement, arrange for all borrowings for or on behalf of the Commonwealth or any State, and for all conversions, renewals, redemptions, and consolidations of the Public Debts of the Commonwealth and of the States.

(b) If at any time the Loan Council by unanimous decision so decides, a State may in accordance with the terms of the decision borrow moneys outside Australia in the name of the State, and issue securities for the moneys so borrowed. The Commonwealth shall guarantee that the State will perform all its obligations to bondholders in respect of the moneys so borrowed. For all the purposes of this Agreement, including the making of sinking fund contributions, the moneys so borrowed shall be deemed to be moneys borrowed by the Commonwealth for and on behalf of that State.

(c) If any State after the 30th June, 1927, and before this Agreement has been approved by the Parliaments of the Commonwealth and of the States, has borrowed moneys in the name of the State and issued securities for the moneys so borrowed, such moneys shall for all the purposes of this Agreement, including the making of sinking fund contributions, be deemed to be moneys borrowed by the Commonwealth for and on behalf of that State.

(d) While Part II. or Part III. of this Agreement is in force, moneys shall not be borrowed by the Commonwealth or any State otherwise than in accordance with this Agreement.

## 5. BORROWING BY STATES.

For any purpose (including the redemption of securities given or issued at any time for moneys previously borrowed or used in manner stated in this clause) a State may, while Part II. or Part III. of this Agreement is in force :—

(a) Subject to any maximum limits decided upon by the Loan Council from time to time for interest, brokerage, discount and other charges, borrow moneys within the State from authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice and from the public by counter sales of securities, and

(b) use any public moneys of the State which are available under the laws of the State.

Any securities that are issued for moneys so borrowed or used shall be Commonwealth securities, to be provided by the Commonwealth upon terms approved by the Loan Council.

Where any such borrowing or use is solely for temporary purposes, the provisions of this Agreement, other than this clause, shall not apply.

Where any such borrowing or use is not solely for temporary purposes, and Commonwealth securities are issued in respect thereof, the moneys borrowed or used shall be deemed to be moneys borrowed by the Commonwealth for and on behalf of the State, and may be retained by the State. A State may convert securities given or issued at any time by that State for moneys previously borrowed or used in manner stated in this clause. New securities issued on any such conversion shall be Commonwealth securities to be provided by the Commonwealth upon terms approved by the Loan Council. The amount for which such new securities are issued shall be deemed to be moneys borrowed by the Commonwealth for and on behalf of the State.

If the moneys deemed under this clause to be moneys borrowed by the Commonwealth on behalf of a State, together with the amounts raised by the Commonwealth for and on behalf of the State exceed the total amount of loan moneys decided upon by the Loan Council as the moneys to be raised for and on behalf of the State for the financial year

in which the money is deemed to be borrowed, the excess shall, unless the Loan Council otherwise decides, be deemed to be moneys received by the State in the following year on account of its loan programme for that year.

For the purposes of this clause counter sales of securities shall be deemed to mean sales of securities made at the office of the State Treasury, and at such other places as may be decided upon by the Loan Council.

The Commonwealth shall not be under any obligation to make sinking fund contributions in respect of moneys borrowed or used pursuant to this clause to meet a revenue deficit of a State, but the provisions of clause 4 (d) of Part II. and of clause 3 (j) of Part III. of this Agreement shall apply respectively to all moneys borrowed or used for that purpose.

Except in cases where the Loan Council has otherwise decided under sub-clause (b) of clause 4 of Part I. of this Agreement a State shall not have the right to invite loan subscriptions by the issue of a public prospectus.

Notwithstanding anything contained in this Agreement, any State may use for temporary purposes any public moneys of the State which are available under the laws of the State, or may, subject to maximum limits (if any) decided upon by the Loan Council from time to time for interest, brokerage, discount, and other charges, borrow money for temporary purposes by way of overdraft, or fixed, special, or other deposit, and the provisions of this Agreement other than this paragraph shall not apply to such moneys.

#### 6. BORROWING BY COMMONWEALTH.

For any purpose (including the redemption of securities given or issued at any time for moneys previously borrowed or used in manner stated in this clause) the Commonwealth may—while Part II. or Part III. of this Agreement is in force—

- (a) Subject to any maximum limits decided upon by the Loan Council from time to time for interest, brokerage, discount and other charges, borrow moneys within the Commonwealth from authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice and from the public by counter sales of securities, and
- (b) use any public moneys of the Commonwealth which are available under the laws of the Commonwealth.

Any securities that are issued for moneys so borrowed or used shall be Commonwealth securities, to be provided by the Commonwealth upon terms approved by the Loan Council.

Where any such borrowing or use is solely for temporary purposes, the provisions of this Agreement, other than this clause, shall not apply.

Where any such borrowing or use is not solely for temporary purposes, and Commonwealth securities are issued in respect thereof, the moneys borrowed or used may be retained by the Commonwealth. The Commonwealth may convert securities given or issued at any time by the Commonwealth for moneys previously borrowed or used in manner stated in this clause. New securities issued on any such conversion shall be Commonwealth securities to be provided by the Commonwealth upon terms approved by the Loan Council.

If the moneys so borrowed or used are not borrowed or used solely for temporary purposes and Commonwealth securities are issued in respect thereof, and such moneys, together with other moneys borrowed by the Commonwealth for and on behalf of the Commonwealth as part of the total amount of loan moneys decided upon by the Loan Council as the moneys to be raised for and on behalf of the Commonwealth for the financial year in which the securities are issued, exceed such total amount the excess shall unless the Loan Council otherwise decides be deemed to be moneys received by the Commonwealth in the following year on account of its loan programme for that year.

For the purposes of this clause counter sales of securities shall be deemed to mean sales of securities made at the offices of the Commonwealth Treasury, and at such other places as may be decided upon by the Loan Council.



Notwithstanding anything contained in this Agreement, the Commonwealth may use for temporary purposes any public moneys of the Commonwealth which are available under the laws of the Commonwealth or may, subject to maximum limits (if any) decided upon by the Loan Council from time to time for interest, brokerage, discount, and other charges, borrow money for temporary purposes by way of overdraft, or fixed, special or other deposit, and the provisions of this Agreement other than this paragraph shall not apply to such moneys.

7. PAYMENT OF INTEREST AND SINKING FUNDS.

[*Not reprinted.*—This section which is obsolete provided for payment of interest and sinking fund on certain loans in the event of Part III. of the Agreement not coming into force.]

PART II.

[*Not reprinted.*—This Part which is obsolete provided for interest and sinking fund during the period 1st July, 1927, up to the actual taking over of States' debts by the Commonwealth on 1st July, 1929. The intention was to carry out the permanent arrangements proposed in Part III. so far as they were applicable to the interim period.]

PART III.

This Part of this Agreement shall not come into force or be binding upon any party hereto unless before the 1st July, 1929, the Constitution of the Commonwealth has been altered in accordance with the proposals referred to in Part IV. of this Agreement and a law of the Parliament of the Commonwealth has been made thereunder validating this Agreement, but shall come into full force and effect if and when before the said date the Constitution is so altered and this Agreement is so validated.

When this Part of this Agreement comes into force every matter or thing done and payment made under or in pursuance of Part II. of this Agreement shall be deemed, so far as is practicable, to have been done or made under this Part of this Agreement to the same extent as if this Part had then in fact been in force, and all necessary adjustments shall be made in respect of moneys so paid in order to ensure that no party hereto shall be liable for or make double payments in respect of the same matter.

PERMANENT PROVISIONS.

1. *Taking over States' Public Debts.*

Subject to the provisions of this Part of this Agreement the Commonwealth will take over on the 1st July, 1929 :—

- (i) the balance then unpaid of the gross public debt of each State existing on 30th June, 1927; and
- (ii) all other debts of each State existing on the 1st July, 1929, for moneys borrowed by that State which by this Agreement are deemed to be moneys borrowed by the Commonwealth for and on behalf of that State—

and will in respect of the debts so taken over assume as between the Commonwealth and the States the liabilities of the States to bondholders.

2. *Payment of Interest.*

(a) Subject to this clause the Commonwealth will pay to bondholders from time to time interest payable on the Public Debts of the States taken over by the Commonwealth as aforesaid other than debts due by the States to the Commonwealth.

(b) The Commonwealth will in each year during the period of 58 years, commencing on 1st July, 1927, provide by equal monthly instalments the following amounts in respect of each State as shown hereunder towards the interest payable by that State :—

	£
New South Wales .. .. .	2,917,411
Victoria .. .. .	2,127,159
Queensland .. .. .	1,096,235
South Australia .. .. .	703,816
Western Australia .. .. .	473,432
Tasmania .. .. .	266,859
	£7,584,9

(c) Each State shall in each year during the same period of 58 years pay to the Commonwealth the excess over the amounts to be provided by the Commonwealth under the last preceding sub-clause necessary to make up as they fall due the interest charges falling due in that year on the public debt of that State taken over by the Commonwealth as aforesaid and then unpaid, and on any moneys borrowed by the Commonwealth on behalf of that State and then unpaid, and after the expiration of the said period each State shall in each year pay to the Commonwealth, as they fall due, the whole of the interest charges on any debt then unpaid and included in the public debt of that State taken over by the Commonwealth as aforesaid, and on any moneys borrowed by the Commonwealth on behalf of that State and then unpaid.

(d) The method by which payments shall be made by a State under sub-clause (c) of this clause shall be arranged from time to time between the Commonwealth and that State.

(e) The rate of interest payable under sub-clause (c) of this clause in respect of moneys borrowed by the Commonwealth on behalf of a State shall be the full rate of interest payable by the Commonwealth in respect of the loan by which such moneys were borrowed or such other rate of interest as may be payable by the State to the Commonwealth under any Agreement made or to be made between the Commonwealth and that State in respect of such moneys and such interest shall be payable by the State for the full term of that loan.

### 3. *Sinking Funds.*

(a) A sinking fund at the rate of 7s. 6d. per annum for each £100 of the net public debts of the States existing on 30th June, 1927, shall be established in the manner hereinafter set forth.

(b) During the period of fifty-eight years commencing on the 1st July, 1927, the Commonwealth shall pay from revenue annually a sinking fund contribution at the rate of 2s. 6d. for each £100 of the net public debts of the States existing on 30th June, 1927, and each State (other than the State of New South Wales) shall in each year during the said period pay from revenue a sinking fund contribution at the rate of 5s. for each £100 of the net public debt of such State existing on 30th June, 1927. The State of New South Wales during the period of fifty-eight years commencing on the 1st July, 1928, shall in each year pay from revenue a sinking fund contribution at the rate of 5s. for each £100 of the net public debt of that State existing on 30th June, 1927.

(c) Where in respect of any debt included in the gross Public Debt of a State existing at the 30th June, 1927, there is under laws or contracts existing at that date an obligation to provide a sinking fund at a rate in excess of 7s. 6d. per annum for each £100, any amount to be so provided in excess of 7s. 6d. per annum for each £100 shall be provided out of the National Debt Sinking Fund, established under the laws of the Commonwealth. Provided that if any law imposing such an obligation is repealed or is amended so as to reduce the rate of sinking fund to be provided the only amount (if any) to be provided out of the National Debt Sinking Fund pursuant to this sub-clause in respect of that debt shall as from the date of such repeal or amendment be the amount (if any) by which the reduced rate of sinking fund for the time being exceeds 7s. 6d. per annum for each £100.

(d) When a loan is issued for the conversion, renewal, or redemption of any debt of a State included in the gross Public Debt of that State existing on 30th June, 1927, the only sinking fund contributions to be made by the Commonwealth and that State in respect of the debt so converted, renewed, or redeemed shall be sinking fund contributions at the same rate and for the same period and upon the same amount as if such debt had not been converted, renewed, or redeemed.

(e) Subject to sub-clauses (h) and (j) of this clause a sinking fund at the rate of 10s. per annum for each £100 of the amount of each new loan raised by a State or by the Commonwealth for and on behalf of a State after 30th June, 1927, shall be established.

(f) Subject to sub-clauses (h) and (j) of this clause, in each year during the period of fifty-three years from the date of the raising after 30th June, 1927, of any new loan by a State or by the Commonwealth for and on behalf of a State the Commonwealth and that State shall each pay from revenue a sinking fund contribution of a sum equal to 5s. for each £100 of the amount of the new loan.

Provided that the period of fifty-three years during which the State of New South Wales shall make sinking fund contributions in respect of new loans raised in the financial year beginning on the 1st July, 1927, shall commence on the 1st July, 1928.

(g) For the purpose of the last two preceding sub-clauses a loan issued after the 30th June, 1927, to meet a revenue deficit which accrued on or before that date shall be deemed to be a new loan, but a loan issued for the conversion, renewal or redemption of a debt shall not be deemed to be a new loan, and where a loan is issued partly for the conversion, renewal, or redemption of a debt and partly for other purposes, so much only of the loan as has been issued for other purposes shall be deemed to be a new loan.

(h) Where it is agreed between the Commonwealth and a State that a loan or any portion of a loan raised after 30th June, 1927, and expended or to be expended upon wasting assets should be redeemed within a shorter period than fifty-three years, the annual sinking fund contributions of the State in respect of that loan or the portion thereof, shall be increased to an amount which with the sinking fund contributions of the Commonwealth in respect of that loan or the portion thereof will provide for the redemption of that loan or the portion thereof within such shorter period. All sinking fund contributions of the State in respect of that loan or the portion thereof shall cease on the expiration of the shorter period, but the Commonwealth contributions in respect of that loan shall continue for the remainder of the period of fifty-three years from the date of the raising of that loan, and during such remainder of the period the State contributions to the sinking fund in respect of other loans of that State shall be reduced by the amount of the Commonwealth contributions during that remainder of the period in respect of such redeemed loan or the portion thereof. For the purposes of this sub-clause the sinking fund contributions of the Commonwealth and the State shall be deemed to accumulate at the rate of  $4\frac{1}{2}$  per centum per annum compounded.

(i) Where loan moneys have been advanced by a State under terms providing for the repayment of such moneys the State shall as and when such moneys are repaid pay such moneys either to the State Loan Fund or to the account or fund from which such moneys were advanced, or to the sinking fund and shall in addition make from revenue its sinking fund contributions in respect of the loan or loans from which the moneys so advanced were provided.

Provided that when loan moneys have been advanced by a State to a Public or Local Authority or body constituted by the State or under the laws of the State and the Authority or body repays such moneys out of its revenue the State may out of moneys so repaid make its sinking fund contributions in respect of the loan moneys so advanced.

(j) In respect of any loan raised after the 30th June, 1927, by a State or by the Commonwealth for and on behalf of a State to meet a revenue deficit accruing after that date no sinking fund contributions shall be payable by the Commonwealth, but that State shall for a period sufficient to provide for the redemption of that loan pay from revenue in each year during such period a sinking fund contribution at a rate of not less than 4 per centum per annum of the amount of that loan. For the purposes of this sub-clause the sinking fund contributions of the State shall be deemed to accumulate at the rate of  $4\frac{1}{2}$  per centum per annum compounded.

(k) All sinking fund contributions to be made in pursuance of this part of this Agreement shall be debts payable to the National Debt Commission as follows :—

- (i) As regards the net public debt of a State existing on 30th June, 1927—by half-yearly instalments on 30th September and 31st March in each financial year or on such other dates as may be agreed between the Commonwealth and that State.

(ii) As regards loans raised after 30th June, 1927—by equal instalments on the dates on which interest on such loans is payable or on such other dates as may be agreed upon between the Commonwealth and the State concerned.

(l) Subject to the next succeeding sub-clause all moneys and securities standing to the credit of sinking funds, redemption funds and funds of a like nature of a State existing on 30th June, 1929, shall forthwith be transferred by the States to the National Debt Commission. Nothing in this sub-clause contained shall be deemed to limit the power of a State to cancel before 30th June, 1929, any such securities.

(m) Where the conditions relating to sinking funds, redemption funds, and funds of a like nature as aforesaid held by a State on trust or by trustees under statutory or contractual obligations preclude the transfer of those funds to the National Debt Commission, such funds shall remain under the control of the State or those trustees, and the National Debt Commission will either directly or through the State concerned make all future payments to the State or to those trustees from the sinking fund.

(n) The sinking funds to be established under this Agreement shall be controlled by the National Debt Commission. The National Debt Commission may arrange with any State to act as its agent in connexion with payments due to bondholders.

(o) Sinking Fund contributions made under this Agreement in respect of the debts of a State and funds of that State transferred to the National Debt Commission under sub-clause (l) of this clause will not be accumulated, but (subject to sub-clauses (m) and (p) of this clause) will be applied to the redemption of the public debts of that State and of loans raised by the Commonwealth for and on behalf of that State, or to the purchase of securities issued in respect thereof.

(p) If at any time it is deemed inexpedient by the National Debt Commission to apply sinking funds in the manner set forth in sub-clause (o) of this clause, such funds may be temporarily invested in any securities in which the National Debt Commission is from time to time by law authorized to invest moneys.

(q) When a security issued in respect of a public debt of a State or of a loan raised by the Commonwealth for and on behalf of a State is repurchased or redeemed by the National Debt Commission such security shall be cancelled—

- (i) if a 'repurchased' security—on the last day of September, December, March, or June next ensuing after the date of repurchase, or on the date of maturity of the security whichever shall first occur; and
- (ii) if a redeemed security—on the date of redemption.

In addition to the sinking fund contributions otherwise payable in respect of that debt or loan the State concerned shall—

- (i) as from the date of cancellation of each security and for the full period during which the said sinking fund contributions are payable make from revenue a further sinking fund contribution at the rate of  $4\frac{1}{2}$  per centum per annum of the face value of the cancelled security; and
- (ii) also pay to the National Debt Commission interest on the face value of each repurchased security at the rate provided by the security from the last date preceding the repurchase upon which interest was payable under the terms of the security up to the date of cancellation of the security.

#### 4. TRANSFERRED PROPERTIES.

It is agreed that all questions between the Commonwealth and the States relating to State properties transferred to the Commonwealth or acquired by the Commonwealth under section 85 of the Constitution shall be settled as follows:—

The States will as from 1st July, 1929, and as between the Commonwealth and the States be completely free and discharged from all liability whether in respect of principal, interest or sinking fund, or otherwise, which liability shall be assumed by the Commonwealth in respect of so much of the public debts of the States bearing interest at the rate

of 5 per centum per annum, taken over by the Commonwealth as aforesaid as amounts to the agreed value of transferred properties, namely, £10,924,323, apportioned to the several States as follows :—

					£
New South Wales	..	..	..	..	4,788,005
Victoria	..	..	..	..	2,302,862
Queensland	..	..	..	..	1,560,639
South Australia	..	..	..	..	1,035,631
Western Australia	..	..	..	..	736,432
Tasmania	..	..	..	..	500,754
					10,924,323
Total	..	..	..	..	10,924,323

The particular portion of the public debt of each State in respect of which the States shall become free and discharged from liability shall be determined by the Commonwealth.

Each State will issue to the Commonwealth freehold titles (or, if the laws of any State do not permit of the issue of freehold titles, then titles as near to freehold as the laws of that State will permit) for transferred properties consisting of land or interests in land in that State, and all liability of the Commonwealth to the State in respect of transferred properties shall as from the 1st July, 1929, be extinguished.

The provisions of clauses 2 and 3 of this Part of this Agreement shall not apply to the said amount of £10,924,323.

PART IV.—MISCELLANEOUS.

I. EXPENSES OF LOAN FLOTATION.

Each State shall repay to the Commonwealth all expenses incurred or payments made by the Commonwealth in the performance of this Agreement in relation to the State including the following expenses and payments :—

- (i) Loan flotation charges ;
- (ii) Management charges ;
- (iii) Stamp duties on transfer of securities ;
- (iv) Commission on payment of interest ;
- (v) Expenses incurred in the conversion, renewal, redemption, or consolidation of loans ;
- (vi) Exchange on transference of moneys.

Unless it is otherwise agreed between the Commonwealth and a State the Commonwealth will not do anything in connexion with a loan of that State existing on the 30th June, 1927, or raised thereafter pursuant to this Agreement which if done by that State would be a breach of any now existing agreement by that State with any Bank.

A certificate by the Auditor-General of the Commonwealth stating the amount to be repaid by a State to the Commonwealth and the matter in respect of which the repayment is to be made shall in the event of a dispute be conclusive as to the amount and matter stated.

2. ALTERATION OF THE CONSTITUTION.

The Commonwealth will take the necessary action to submit to the Parliament of the Commonwealth and to the electors proposals for the alteration of the Constitution of the Commonwealth in the following form :—

“ 105A. (1) The Commonwealth may make agreements with the States with respect to the public debts of the States, including—

- (a) the taking over of such debts by the Commonwealth ;
- (b) the management of such debts ;
- (c) the payment of interest and the provision and management of sinking funds in respect of such debts

- (d) the consolidation, renewal, conversion, and redemption of such debts ;
- (e) the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth ; and
- (f) the borrowing of money by the States or by the Commonwealth or by the Commonwealth for the States.

(2) The Parliament may make laws for validating any such agreement made before the commencement of this section.

(3) The Parliament may make laws for the carrying out by the parties thereto of any such agreement.

(4) Any such agreement may be varied or rescinded by the parties thereto.

(5) Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto, notwithstanding anything contained in this Constitution or the constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.

(6) The powers conferred by this section shall not be construed as being limited in any way by the provisions of section 105 of this Constitution.”

[For result of referendum see Chapter III., § 2-4.]

### 3. INDEMNITY.

Each State agrees with the Commonwealth that it will by the faithful performance of its obligations under this Agreement indemnify the Commonwealth against all liabilities whatsoever in respect of the public debt of that State taken over by the Commonwealth as aforesaid (other than the liabilities of the Commonwealth under this Agreement to pay interest and to make sinking fund contributions and under clause 4 of Part III. of this Agreement), and in respect of all loans of that State in respect of which this Agreement provides that sinking fund contributions shall be made.

### 4. ACCOUNTS.

Separate accounts shall be kept by the Commonwealth for each State in respect of Debt, Interest, and Sinking Funds.

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[*Note re Validity of Act.*—Consequent upon the failure of the State of New South Wales to provide certain interest payments on its public debts in accordance with the Financial Agreement, the Commonwealth Parliament passed a *Financial Agreement Enforcement Act* (No. 3 of 1932). The State of New South Wales attacked the validity of this act as being *ultra vires* the Commonwealth Parliament and an infringement of State rights in respect to the appropriation of public moneys for specific services. The High Court by a majority decision of four to two held that this was a valid law and dismissed the action, subsequently refusing leave to appeal to the Privy Council.]

## CHAPTER II.

## PHYSIOGRAPHY.

## § 1. General Description of Australia.

1. *Geographical Position.*—(i) *General.* The Australian Commonwealth, which includes the island continent of Australia proper and the island of Tasmania, is situated in the Southern Hemisphere, and comprises in all an area of about 2,974,581 square miles, the mainland alone containing about 2,948,366 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes  $113^{\circ} 9' E.$  and  $153^{\circ} 39' E.$ , while its northern and southern limits are the parallels of latitude  $10^{\circ} 41' S.$  and  $39^{\circ} 8' S.$ , or, including Tasmania,  $43^{\circ} 39' S.$  On its north are the Timor and Arafura Seas and Torres Strait—on its south the Southern Ocean and Bass Strait. The extreme points are “Steep Point” on the west, “Cape Byron” on the east, “Cape York” on the north, “Wilson’s Promontory” on the south, or, if Tasmania be included, “South-East Cape.”

(ii) *Tropical and Temperate Regions.* Of the total area of Australia nearly 40 per cent. lies within the tropics. Assuming, as is usual, that the latitude of the Tropic of Capricorn is  $23^{\circ} 30' S.$  (its mean value for 1932 was  $23^{\circ} 26' 53.04''$ ), the areas within the tropical and temperate zones are approximately as follows:—

## AUSTRALIA—AREAS OF TROPICAL AND TEMPERATE REGIONS.

(STATES AND TERRITORY PARTIALLY WITHIN TROPICS.)

Area.	Queensland.	Western Australia.	Northern Territory.	Total.
	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
Within Tropical Zone .. .. .	359,000	364,000	426,320	1,149,320
Within Temperate Zone .. .. .	311,500	611,920	97,300	1,020,720
Ratio of Tropical part to whole State ..	0.535	0.373	0.814	0.530
Ratio of Temperate part to whole State	0.465	0.627	0.186	0.470

Thus the tropical part is roughly about one-half (0.530) of the three territories mentioned above, or about five-thirteenths of the whole of Australia (0.386). -

2. *Area of Australia compared with Areas of other Countries.*—It is not always realized that the area of Australia is nearly as great as that of the United States of America, that it is four-fifths of that of Canada, that it is over one-fifth of the area of the whole of the British Empire, that it is more than three-fourths of the whole area of Europe, and that it is about 25 times as large as Great Britain and Ireland or Italy.

This great area, coupled with a limited population, renders the solution of the problem of Australian development a particularly difficult one. The areas of Australia and of certain other countries are given in the following table :—

AREA OF AUSTRALIA AND OF OTHER COUNTRIES.

Country.	Area.	Country.	Area.
	Sq. miles.	AFRICA— <i>continued.</i>	Sq. miles.
<b>Continental Divisions—</b>		Belgian Congo .. ..	918,000
Europe .. .. .	3,858,066	Algeria .. .. .	847,500
Asia .. .. .	16,655,467	Angola .. .. .	486,207
Africa .. .. .	11,249,767	South African Union .. ..	471,917
North and Central America and West Indies .. ..	8,554,273	Portuguese East Africa .. ..	287,756
South America .. .. .	7,228,173	Tripolitania .. .. .	347,497
Australasia and Polynesia	3,467,076	Egypt .. .. .	383,000
		Tanganyika Territory .. ..	374,000
Total, exclusive of Arctic and Antarctic Confs., ..	51,012,822	Nigeria and Protectorate..	372,841
		Abyssinia .. .. .	350,000
<b>Europe—</b>		South-west Africa .. ..	322,768
Russia .. .. .	1,769,282	Northern Rhodesia .. ..	287,950
France .. .. .	212,659	Cyrenaica .. .. .	285,640
Spain (inc. possessions) ..	196,607	Bechuanaland Protectorate	275,000
Germany .. .. .	181,723	Madagascar .. .. .	241,094
Sweden .. .. .	173,146	Kenya Colony and Protec- torate .. .. .	224,960
Poland .. .. .	149,958	<b>North and Central America—</b>	
Finland .. .. .	132,589	Canada .. .. .	3,690,043
Norway .. .. .	124,533	United States .. .. .	3,026,789
Roumania .. .. .	122,282	Mexico .. .. .	767,198
Italy .. .. .	119,710	Alaska .. .. .	586,400
Yugoslavia .. .. .	96,012	Newfoundland and Labra- dor .. .. .	162,734
Great Britain and Northern Ireland .. .. .	94,633	Nicaragua .. .. .	51,660
<b>Asia—</b>		<b>South America—</b>	
Russia .. .. .	6,475,318	Brazil .. .. .	3,275,510
China and Dependencies ..	4,277,655	Argentine Republic .. ..	1,153,119
British India and Adminis- tered Territories .. ..	1,094,300	Peru .. .. .	532,047
Arabia and Autonomous States .. .. .	1,000,000	Bolivia .. .. .	514,155
Feudatory Indian States ..	711,032	Colombia (exc. of Panama)	447,536
Persia .. .. .	628,000	Venezuela .. .. .	393,874
Dutch East Indies .. ..	572,604	Chile .. .. .	285,133
Turkey .. .. .	285,334	Ecuador .. .. .	275,936
Japan (and Dependencies)	260,044	<b>Australasia and Polynesia—</b>	
Afghanistan .. .. .	245,000	Commonwealth of Australia	2,974,581
Siam .. .. .	200,234	Dutch New Guinea .. ..	160,692
<b>Africa—</b>		New Zealand and Depen- dencies .. .. .	103,862
French West Africa .. ..	1,440,191	Territory of New Guinea ..	93,000
Anglo-Egyptian Sudan ..	1,008,100	Papua .. .. .	90,540
French Equatorial Africa	912,049	<b>British Empire .. .. .</b>	<b>13,355,426</b>

The figures quoted in the table have, in most cases, been extracted from the Statesman's Year Book for 1932.



3. Areas of Political Subdivisions.—As already stated, Australia consists of six States and the Northern and Federal Capital Territories. The areas of these, and their proportions of the total of Australia, are shown in the following table :—

AUSTRALIA—AREA OF STATES AND TERRITORIES.

State or Territory.	Area.	Percentage on Total.
	Sq. miles.	%
New South Wales .. .. .	309,432	10.40
Victoria .. .. .	87,884	2.96
Queensland .. .. .	670,500	22.54
South Australia .. .. .	380,070	12.78
Western Australia .. .. .	975,920	32.81
Tasmania .. .. .	26,215	0.88
Northern Territory .. .. .	523,620	17.60
Federal Capital Territory .. .. .	940	0.03
Total .. .. .	2,974,581	100.00

4. Coastal Configuration.—(i) *General.* There are no striking features in the configuration of the coast; the most remarkable indentations are the Gulf of Carpentaria on the north, and the Great Australian Bight on the south. The Cape York Peninsula on the extreme north is the only other remarkable feature in the outline. In Year Book No. 1, an enumeration of the features of the coast-line of Australia was given (see pp. 60 to 68).

(ii) *Coast-line.* The lengths of coast-line, exclusive of minor indentations, of each State and of the whole continent, and the area per mile of coast-line, are shown in the following table :—

AUSTRALIA—COAST LINE AND AREA PER MILE THEREOF.

State.	Coast-line.	Area per Mile of Coast-line.	State.	Coast-line.	Area per Mile of Coast-line.
	Miles.	Sq. miles.		Miles.	Sq. miles.
New South Wales(a)	700	443	South Australia ..	1,540	247
Victoria .. .. .	680	129	Western Australia ..	4,350	224
Queensland .. .. .	3,000	223	Continent (b) ..	11,310	261
Northern Territory	1,040	503	Tasmania .. .. .	900	29

(a) Including Federal Capital Territory.

(b) Area 2,948,366 square miles.

For the entire Commonwealth of Australia this gives a coast-line of 12,210 miles and an average of 244 square miles for one mile of coast-line. According to Strelbitski, Europe has only 75 square miles of area to each mile of coast-line, and, according to recent figures, England and Wales have only one-third of this, viz., 25 square miles.

(iii) *Historical Significance of Coastal Names.* It is interesting to trace the voyages of some of the early navigators by the names bestowed by them on various coastal features—thus Dutch names are found on various points of the Western Australian coast, in Nuyts' Archipelago, in the Northern Territory, and in the Gulf of Carpentaria;

Captain Cook can be followed along the coasts of New South Wales and Queensland; Flinders' track is easily recognized from Sydney southwards, as far as Cape Catastrophe, by the numerous Lincolnshire names bestowed by him; and the French navigators of the end of the eighteenth and the beginning of the nineteenth century have left their names all along the Western Australian, South Australian, and Tasmanian coast.

5. **Geographical Features of Australia.**—In each of the earlier issues of this Year Book fairly complete information has been given concerning some special geographical element. The nature of this information and its position in the various Year Books can be readily ascertained on reference to the special index following the index to maps and graphs at the end of this work.

6. **Fauna, Flora, Geology, and Seismology of Australia.**—Special articles dealing with these features have appeared in previous Year Books, but limits of space naturally preclude their repetition in each volume. As pointed out in 5 *supra*, however, the nature and position of these articles can be readily ascertained from the special index.

## § 2. Climate and Meteorology of Australia.\*

1. **Introductory.**—In Year Book No. 3, pp. 79, 80, some account was given of the history of Australian meteorology, including reference to the development of magnetic observations and the equipment for the determination of various climatological records. In Year Book No. 4, pp. 84 and 87, will be found a short sketch of the creation and organization of the Commonwealth Bureau of Meteorology, and a résumé of the subjects dealt with at the Meteorological Conference in 1907. Space will not permit of the inclusion of this matter in the present issue.

2. **Meteorological Publications.**—Reference to publications issued by the Central Meteorological Bureau will be found in Official Year Book No. 22, pp. 40, 41. The following publications have since been issued:—Volume of "Results of Rainfall Observations made in Western Australia," for all years of record to 1927; Map of Normal Meteorological Conditions in Australia affecting Aviation; and a Paper "A Basis for Seasonal Forecasting", by H. A. Hunt.

3. **General Description of Australia.**—A considerable portion (0.530) of three divisions of Australia is north of the tropic of Capricorn—that is to say, within the States of Queensland and Western Australia, and the Northern Territory; no less than 1,149,320 square miles belong to the tropical zone, and 1,020,720 to the temperate zone. The whole area of Australia within the temperate zone, however, is 1,825,261 square miles; thus the tropical part is about 0.386, or about five-thirteenthths of the whole, or the "temperate" region is half as large again as the "tropical" (more accurately 1.588). By reason of its insular geographical position, and the absence of striking physical features, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is, on the whole, more temperate.

The altitudes of the surface of Australia range up to a little over 7,300 feet, hence its climate embraces a great many features, from the characteristically tropical to what is essentially alpine, a fact indicated in some measure by the name Australian Alps given to the southern portion of the great Dividing Range.

On the coast, the rainfall is often abundant and the atmosphere moist, but in some portions of the interior it is very limited, and the atmosphere dry. The distribution of forest, therefore, with its climatic influence, is very uneven. In the interior, in places, there are fine belts of trees, but there are large areas also which are treeless, and where the air is hot and parching in summer. Again, on the coast, even so far south as latitude 35°, the vegetation is tropical in its luxuriance, and to some extent also in character. Climatologically, therefore, Australia may be said to present a great variety of features.

4. **Meteorological Divisions.**—(i) *General.* Reference to the divisions adopted by the Commonwealth Meteorologist will be found in Official Year Book No. 22, p. 41.

\* Prepared from data supplied by the Commonwealth Meteorologist, W. S. Watt, Esquire.

(ii) *Special Climatological Stations.* The latitudes, longitudes, and altitudes of special stations, the climatological features of which are graphically represented hereinafter are as follows:—

## SPECIAL CLIMATOLOGICAL STATIONS—AUSTRALIA.

Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.	Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.
	Feet.	deg. min.	deg. min.		Feet.	deg. min.	deg. min.
Perth ..	197	31 57	115 50	Canberra ..	1,837	35 20	149 15
Adelaide ..	140	34 56	138 35	Darwin ..	97	12 28	130 51
Brisbane ..	137	27 28	153 2	Alice Springs	1,926	23 38	133 37
Sydney ..	138	33 52	151 12	Dubbo ..	870	32 18	148 35
Melbourne ..	115	37 49	144 58	Laverton, W.A.	1,530	28 40	122 23
Hobart ..	177	42 53	147 20	Coolgardie ..	1,389	30 57	121 10

5. *Temperatures.*—(i) *Comparisons with other Countries.* In respect of Australian temperatures generally, it may be pointed out that the isotherm for 70° Fahrenheit extends in South America and South Africa so far south as latitude 33°, while in Australia it reaches only so far south as latitude 30°, thus showing that, on the whole, Australia has latitude for latitude a more temperate climate than other places in the Southern Hemisphere.

The comparison is even more favourable when the Northern Hemisphere is included, for in the United States the 70° isotherm extends in several of the western States so far north as latitude 41°. In Europe, the same isotherm reaches almost to the southern shores of Spain, passing, however, afterwards along the northern shores of Africa till it reaches the Red Sea, when it bends northward along the eastern shore of the Mediterranean till it reaches Syria. In Asia, nearly the whole of the land area south of latitude 40° N. has a higher temperature than 70°.

The extreme range of shade temperatures in summer and winter in a very large part of Australia amounts to probably only 81°. In Siberia, in Asia, the similar range is no less than 171°, and in North America 153°, or approximately double the Australian range.

Along the northern shores of Australia the temperatures are very equable. At Darwin, for example, the difference in the means for the hottest and coldest months is only 8.4°, and the extreme readings for the year, or the highest maximum in the hottest month and the lowest reading in the coldest month, show a difference of under 50°.

Coming southward, the extreme range of temperature increases gradually on the coast, and in a more pronounced manner inland.

(ii) *Hottest and Coldest Parts.* A comparison of the temperatures recorded at coast and inland stations shows that, in Australia, as in other continents, the range increases with increasing distance from the coast.

In the interior of Australia, and during exceptionally dry summers, the temperature occasionally reaches or exceeds 120° in the shade, and during the dry winters the major portion of the country to the south of the tropics is subject to ground frosts. An exact knowledge of temperature disposition cannot be determined until the interior becomes more settled, but from data procurable it would appear that the hottest area of the

continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine goldfields, where the maximum shade temperature during the summer sometimes exceeds  $100^{\circ}$  continuously for days and weeks. The coldest part of Australia is the extreme south-east of New South Wales and extreme east of Victoria—the region of the Australian Alps. Here the temperature seldom, if ever, reaches  $100^{\circ}$  even in the hottest of seasons.

Tasmania as a whole enjoys a most moderate and equable range of temperature throughout the year, although occasionally hot winds may cross the Straits and cause the temperature to rise to  $100^{\circ}$  in the low-lying parts.

(iii) *Monthly Maximum and Minimum Temperatures.* The normal monthly maximum and minimum temperatures can be best shown by means of graphs, which exhibit the nature of the fluctuation of each for all available years. In the diagram herein for nine representative places in Australia, the upper heavy curves show the mean maximum, and the lower heavy curves the mean minimum temperatures based upon daily observations, while the other curves show the humidities.

6. **Humidity.**—After temperature, humidity is the most important element of climate, as regards its effect on human comfort, rainfall supply, and in connexion with engineering problems generally.

In this publication the *absolute humidity* has been graphically represented in the form of inches of vapour pressure (i.e., that portion of the barometric pressure due to vapour). It is this total quantity of moisture in the air which affects personal comfort, plays an important part in varying the density of the atmosphere, and in heating and refrigerating processes. The more commonly quoted value, called the *relative humidity*, refers to the ratio which the actual moisture contents of the air bear to the total amount possible if saturation existed at the given temperature, and is usually quoted as a percentage. The relative humidity is an important factor in all drying operations, but is much less important than the absolute humidity as affecting animal life.

The mean monthly vapour pressure has also been added to the tables of climatological data for the capital cities included herein.

The normal monthly values of vapour pressure, it should be noted, combine to make the annual curve for this element which is comparable with the maximum and minimum temperature curves, but the relative humidities consisting as they do of the extremes for each month, do not show the normal annual fluctuation which would be approximately midway between the extremes.

The order of stations in descending values of vapour pressure is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, Hobart and Alice Springs, while the relative humidity diminishes in the order, Sydney, Canberra, Darwin, Brisbane, Melbourne Adelaide, Hobart, Perth and Alice Springs.

7. **Evaporation.**—(i) *General.* The rate and quantity of evaporation in any territory is influenced by the prevailing temperature, and by atmospheric humidity, pressure, and movement. In Australia, the question is of perhaps more than ordinary importance, since in its drier regions water has often to be conserved in "tanks"\* and dams. The magnitude of the economic loss by evaporation will be appreciated from the tabular records herein, which show that the yearly amount varies from about 32 inches at Hobart to 96 inches at Alice Springs in the centre of the continent. Over the *inland* districts of the continent it has been calculated that evaporation equals the rainfall where the annual totals are about 36 inches, the variations above and below this quantity being inverse.

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\* In Australia, artificial storage ponds or reservoirs are called "tanks."

(ii) *Monthly Evaporation Curves.* The curves showing the mean monthly evaporation in various parts of Australia disclose how characteristically different are the amounts for the several months in different localities. The evaporation for representative places is shown on the diagram herein.

(iii) *Loss by Evaporation.* In the interior of Australia the possible evaporation is greater than the actual rainfall. Since the loss by evaporation depends largely on the exposed area, tanks and dams so designed that the surface shall be a minimum are advantageous. Further, the more protected from the direct rays of the sun and from winds, by means of suitable tree planting, the less will be the loss by evaporation. These matters are naturally of more than ordinary concern in the drier districts of Australia.

8. **Rainfall.**—(i) *General.* As even a casual reference to climatological maps indicating the distribution of rainfall and prevailing direction of wind would clearly show, the rainfall of any region is determined mainly by the direction and route of the prevailing winds, by the varying temperatures of the earth's surface over which they blow, and by the physiographical features generally.

Australia lies within the zones of the south-east trades and prevailing westerly winds. The southern limit of the south-east trade strikes the eastern shores at about 30° south latitude, and, with very few exceptions, the heaviest rains of the Australian continent are precipitated along the Pacific slopes to the north of that latitude, the varying quantities being more or less regulated by the differences in elevation of the shores and of the chain of mountains upon which the rain-laden winds blow from the New South Wales northern border to Thursday Island. The converse effect is exemplified on the north-west coast of Western Australia, where the prevailing winds blowing from the interior of the continent instead of from the ocean, result in the lightest coastal rain in Australia.

The westerly winds, which skirt the southern shores, are responsible for the very reliable, although generally light to moderate, rains enjoyed by the south-western portion of Western Australia, by the south-eastern agricultural areas of South Australia, by a great part of Victoria, and by the whole of Tasmania.

(ii) *Factors determining Distribution and Intensity of Rainfall.* (iii) *Time of Rainfall.* In Official Year Book No. 6 (see pp. 72 to 74) some notes were given of the various factors governing the distribution, intensity, and period of Australian rainfall.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 142 and 165 inches. The maximum and minimum falls there are:—Goondi, 241.53 in 1894 and 67.88 inches in 1915, or a range of 173.65 inches; Innisfail, 211.24 in 1894 and 69.87 inches in 1902, or a range of 141.37 inches; Harvey Creek, 254.77 in 1921 and 80.47 inches in 1902, or a range of 174.30 inches.

On four occasions more than 200 inches have been recorded at Goondi, the last of these being in 1910, when 204.82 inches were registered. The record at this station covers a period of 46 years.

Harvey Creek, in the shorter period of 27 years, has three times exceeded 200 inches, the total for 1921 being 254.77 inches, and at the South Johnstone Sugar Experiment Station, where a gauge was established thirteen years ago, 202.52 inches were recorded in 1921.

In Tasmania the wettest part is in the West Coast region, the mean annual rainfall at Lake Margaret being 146.86 inches, with a maximum of 175.12 inches in 1924.

The driest known part of the continent is in the Lake Eyre district in South Australia (the only part of the continent below sea level), where the annual average is only 5 inches, and where the fall rarely exceeds 10 inches for the twelve months.

The inland districts of Western Australia were at one time regarded as the driest part of Australia, but authentic observations in recent years over settled districts in the east of that State show that the annual average is from 10 to 12 inches.

(v) *Quantities and Distribution of Rainfall.* The departure from the normal rainfall increases progressively from the southern to the northern shores of the continent, and similarly also at all parts of the continent subject to capricious monsoonal rains, as the comparisons hereunder will show. The general distribution is best seen from the rainfall map herein, which shows the areas subject to average annual rainfalls lying between certain limits. The areas enjoying varying quantities of rainfall determined from the latest available information are shown in the following table :—

AVERAGE ANNUAL RAINFALL DISTRIBUTION.

Average Annual Rainfall.	N.S.W. (a)	Victoria.	Queens- land.	South Australia	Northern Territory.	Western Australia.	Tas- mania. (b)	Total. (b)
	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.
Under 10 inches	48,749	nil	80,496	310,660	140,500	486,952	nil	1,067,357
10—15 "	78,454	19,270	81,549	36,460	132,780	255,092	nil	603,605
15—20 "	55,762	13,492	111,833	19,940	63,026	94,101	304	358,458
20—25 "	45,140	14,170	143,610	8,620	49,157	44,340	3,844	308,881
25—30 "	30,539	15,579	99,895	3,258	41,608	31,990	3,016	225,885
30—40 "	33,557	14,450	61,963	1,036	37,642	59,520	5,027	213,195
Over 40 "	18,171	10,923	91,154	96	58,907	3,925	11,247	194,423
Total area ..	310,372	87,884	670,500	380,070	523,620	975,920	23,438	2,971,804

(a) Including Federal Capital Territory. (b) Over an area of 2,777 square miles no records are available.

Referring first to the capital cities, the records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 47.71 inches, occupies the chief place; Brisbane, Perth, Melbourne, Hobart, Canberra, and Adelaide following in that order, Adelaide with 21.14 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.48 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, the figures for representative towns have been selected. (See map). The figures for Darwin, typical of the Northern Territory, show that nearly the whole of the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for Perth, as representing the south-western part of the continent, are the reverse, for while the summer months are dry, the winter ones are very wet. In Melbourne and Hobart the rain is fairly well distributed throughout the twelve months, with a maximum in October for the former, and in November for the latter. The records at Alice Springs and Daly Waters indicate that in the central parts of Australia the wettest months are in the summer and autumn. In Queensland, as in the Northern Territory, the heaviest rains fall in the summer months, but good averages are also maintained during the other seasons.

On the coast of New South Wales, the first six months of the year are the wettest, with a maximum in the autumn; the averages during the last six months are fair, and moderately uniform. Generally it may be said that approximately one-third of the

area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 or more inches, the remaining two-thirds averaging from 5 to 20 inches.

(vi) *Curves of Rainfall and Evaporation.* The relative amounts of rainfall and evaporation at different times through the year are clearly indicated in the graphs herein. Inspection thereof will show how large is the evaporation when water is fully exposed to the direct rays of the sun and to wind.

(vii) *Tables of Rainfall.*—(a) *Years 1902 to 1932.* The table of rainfall for a long period of years for each of the various Australian capitals affords information as to the variability of the fall in successive years, and the list of the more remarkable falls furnishes information as to what may be expected on particular occasions. The capitals are dealt with in the order in which they occur in the adopted meteorological divisions.

## RAINFALL—AUSTRALIAN CAPITAL CITIES.

Year.	CANBERRA(a).		PERTH.		ADELAIDE.		BRISBANE.		SYDNEY.		MELBOURNE.		HOBART.	
	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.
1902 ..	..	..	27.06	93	16.02	123	16.17	87	43.07	180	23.08	102	21.85	150
3 ..	..	..	35.69	140	25.47	134	49.27	136	38.62	173	28.43	130	25.86	139
4 ..	..	..	34.35	125	20.31	117	33.23	124	45.93	158	29.72	128	22.47	139
5 ..	..	..	34.61	116	22.28	131	36.76	108	5.03	145	25.64	129	32.09	168
6 ..	..	..	32.37	121	26.51	127	42.85	125	31.89	160	22.29	114	23.31	155
7 ..	..	..	40.12	132	17.78	125	31.46	119	31.32	132	22.26	102	25.92	166
8 ..	..	..	30.52	106	24.56	125	44.01	125	45.65	167	17.72	130	16.50	148
9 ..	..	..	39.11	107	27.69	138	34.06	111	32.45	177	25.86	171	27.29	170
1910 ..	..	..	37.02	135	24.62	116	49.00	133	46.91	160	24.61	167	25.22	205
11 ..	..	..	23.38	108	15.99	127	35.21	128	50.24	155	36.61	168	26.78	193
12 ..	19.27	76	27.85	123	19.57	116	41.30	114	47.51	172	20.37	157	23.14	181
13 ..	16.38	71	38.28	141	18.16	102	40.81	115	57.70	141	21.17	157	19.36	165
14 ..	18.49	81	20.21	128	11.39	91	33.99	141	56.42	149	18.57	129	15.42	154
15 ..	22.31	87	43.61	164	19.38	117	25.66	93	34.83	117	20.95	167	20.91	196
16 ..	31.26	119	35.16	128	28.16	142	52.80	136	44.91	161	38.04	170	43.39	203
17 ..	29.70	144	45.64	146	28.90	153	40.92	127	52.40	151	30.57	171	30.62	214
18 ..	18.27	95	39.58	138	17.41	107	24.95	121	42.99	149	27.13	160	26.04	179
19 ..	16.31	85	30.66	120	17.21	108	19.36	96	58.71	152	24.89	141	22.48	153
20 ..	29.30	107	40.35	124	26.70	119	39.72	122	43.42	159	28.27	162	18.00	182
21 ..	..	..	41.09	135	22.64	100	54.31	167	43.34	140	29.76	154	18.04	159
22 ..	..	..	31.86	135	23.20	117	35.82	109	39.35	136	25.02	151	28.27	189
23 ..	..	..	44.47	134	29.79	139	23.27	93	37.01	123	22.64	158	32.93	198
24 ..	25.95	68	33.79	119	23.44	143	41.08	114	37.01	136	36.48	171	28.76	197
25 ..	33.71	59	31.41	126	21.91	118	53.10	139	50.35	145	17.57	144	22.40	171
26 ..	20.53	97	49.22	167	22.20	116	30.82	111	37.07	127	20.81	149	25.79	187
27 ..	21.40	83	36.59	133	16.92	101	62.08	130	48.56	138	17.98	135	20.02	183
28 ..	17.82	96	44.88	140	19.43	107	52.64	145	40.07	130	24.09	151	30.23	205
29 ..	22.34	88	36.77	172	17.51	119	39.78	118	57.90	129	28.81	168	26.55	194
30 ..	16.52	86	39.80	129	18.65	116	41.22	144	44.47	141	25.41	145	19.38	152
31 ..	24.25	105	39.18	118	22.26	146	66.72	136	49.22	153	28.63	164	27.17	179
32 ..	19.13	107	36.24	107	25.04	141	24.79	97	37.47	146	31.08	179	30.29	155
Average	22.39	92	34.87	121	21.14	123	45.13	128	47.71	152	26.13	139	23.99	151
No. of Years	18	18	57	57	94	94	83	73	93	93	89	77	90	89

NOTE.—The above average rainfall figures for Brisbane, Sydney and Melbourne differ slightly from the mean annual falls given in the Climatological Tables and on page 53, which are for a less number of years. Annual totals from 1860 to 1900 inclusive will be found in Official Year Book No. 15, page 53.

(a) Records commenced in 1912; none available for the years 1921 to 1923.

(b) *Ten Years' Means, 1908 to 1928.* The mean rainfall for the decennia ended 1908, 1918 and 1928, respectively, are given hereunder:—

**RAINFALL—AUSTRALIAN CAPITAL CITIES, TEN YEARS' MEANS.**

Ten Years ended—	Canberra.	Perth.	Adelaide.	Brisbane.	Sydney.	Melbourne.	Hobart.
	in.	in.	in.	in.	in.	in.	in.
1908 ..	(a)	34.05	21.15	36.55	43.41	25.36	23.29
1918 ..	(b)22.24	34.98	21.13	37.87	46.64	26.39	25.82
1928 ..	(c)23.57	38.43	22.34	41.22	43.49	24.75	24.69

(a) Not available.

(b) Seven years ended 1918.

(c) Years 1919, 1920, and 1924 to 1931.

9. **Remarkable Falls of Rain.**—The following are the most remarkable falls of rain in the various States and in the Northern Territory which have occurred within a period of twenty-four hours. In New South Wales and Queensland falls of less than 20 inches in the twenty-four hours have not been included. For other very heavy falls at various localities reference may be made to Official Year Book No. 14, pp. 60 to 63 and No. 22, pp. 46 to 48:—

**HEAVY RAINFALLS—NEW SOUTH WALES, UP TO 1932, INCLUSIVE.**

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Broger's Creek ..	14 Feb., 1898	20.05	Towamba ..	5 Mar., 1893	20.00
" " ..	13 Jan., 1911	20.83	South Head (near		
Cordeaux River ..	14 Feb., 1898	22.58	Sydney) ..	29 Apr., 1841	20.12
Morpeth ..	9 Mar., 1893	21.52	" " ..	16 Oct., 1844	20.41

**HEAVY RAINFALLS—QUEENSLAND, UP TO 1932, INCLUSIVE.**

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Babinda (Cairns) ..	1 Feb., 1913	20.51	Mackay ..	21 Jan., 1918a	24.70
" " ..	24 Jan., 1916	22.30	Macnade Mill ..	6 " , 1901	23.33
Buderim Mountain	11 " , 1898	26.20	" " ..	4 Mar., 1915	22.00
Cairns ..	2 Apr., 1911	20.16	Mooloolah ..	13 " , 1892	21.53
Carbrook ..	23 Jan., 1918	22.66	Mount Callon West	6 Feb., 1931	20.04
Conway ..	29 Mar., 1930	21.82	Mount Molloy ..	31 Mar., 1911	20.00
" " ..	30 " , 1930	21.82	" " ..	1 Apr., "	20.00
Crohamhurst			" " ..	2 " , "	20.00
(Blackall Range)	2 Feb., 1893	35.71	Nambour ..	9 Jan., 1898	21.00
Dungeness ..	16 Mar., 1893	22.17	Plane Creek		
Goondi ..	30 Jan., 1913	24.10	(Mackay) ..	26 Feb., 1913	27.73
Harvey Creek ..	3 " , 1911	27.75	Port Douglas ..	1 Apr., 1911	31.53
" " ..	31 " , 1913	24.72	Sarina ..	23 Jan., 1918	22.60
Innisfail (formerly			Tomewin ..	6 Feb., 1931	20.00
Geraldton) ..	29 Dec., 1903	21.22	Tully ..	12 Feb., 1927	23.86
" " ..	7 Apr., 1912	20.50	" " ..	19 Jan., 1932	27.20
" " ..	31 Jan., 1913	20.91	Woodlands (Yepp'n)	31 Jan., 1893	23.07
Kamerunga (Cairns)	2 Apr., 1911	21.00	Yandina ..	1 Feb., 1893	20.08
Koumala ..	23 Jan., 1918	22.31	Yarrabah ..	2 Apr., 1911	30.65
" " ..	24 " , "	20.65	" " ..	24 Jan., 1916	27.20
Kuranda (Cairns) ..	1 Apr., 1911	24.30	Yeppoon ..	31 " , 1893	20.05
" " ..	2 Apr., 1911	28.80	" " ..	8 Oct., 1914	21.70

(a) 37½ hours.



## HEAVY RAINFALLS—WESTERN AUSTRALIA, UP TO 1932, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Balla Balla ..	21 Mar., 1899	14.40	Obagama ..	24 Dec., 1920	13.02
Beagle Bay ..	19 May, 1931	13.00	" ..	15 Feb., 1930	10.66
Boodarie ..	21 Jan., 1896	14.53	Pilbara ..	2 Apr., 1898	14.04
Broome ..	6 " 1917	14.00	Point Torment ..	17 Dec., 1906	11.86
Cossack ..	3 Apr., 1898	12.82	Port George IV. ..	17 Jan., 1915	11.24
" ..	16 " 1900	13.23	Roebourne ..	3 Apr., 1898	11.44
Croydon ..	3 Mar., 1903	12.00	Roebuck Plains ..	5 Jan., 1917	14.01
Derby ..	29 Dec., 1898	13.09	" ..	6 " "	22.36
" ..	7 Jan., 1917	16.47	Springvale ..	14 Mar., 1922	12.25
" ..	23 Jan., 1931	12.25	Tambray ..	6 " 1900	11.00
Exmouth Gulf ..	2 Feb., 1918	12.50	Thangoc ..	17-19 Feb., '96	24.18
Fortescue ..	3 May, 1890	23.36	" ..	28 Dec., 1898	11.15
Frazier Downs ..	3 Mar., 1916	11.25	Whim Creek ..	3 Apr., 1898	29.41
" ..	26 Jan., 1931	12.50	" ..	21 Mar., 1899	18.17
Gnaraloo ..	20 Mar., 1923	11.00	Winderrie ..	17 Jan., 1923	14.23
Kerdiadary ..	7 Feb., 1901	12.00	Woodstock ..	21 " 1912	13.00
Lulingui ..	3 Feb., 1932	10.02	Wyndham ..	27 " 1890	11.60
Minilya ..	15 Jan., 1923	11.50	" ..	4 Mar., 1919	12.50
Mundabullangana	12 Feb., 1929	12.05	Yeeda ..	7 Jan., 1917	11.75
Obagama ..	28 Feb., 1910	12.00			

## HEAVY RAINFALLS—NORTHERN TERRITORY, UP TO 1932, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Bathurst Island ..			Cosmopolitan Gold Mine ..	24 Dec., 1915	10.60
Mission ..	7 Apr., 1925	11.85	Darwin ..	7 " "	11.67
Bonrook ..	24 Dec., 1915	10.60	Groote Eylandt ..	30-31 Mar., '23	12.000
Borroloola ..	14 Mar., 1899	14.00	Koolpinyah ..	6 Mar., 1930	10.35
Brock's Creek ..	4 Jan., 1914	10.68	Lake Nash ..	21 Mar., 1901	10.25
" ..	24 Dec., 1915	14.33	Pine Creek ..	8 Jan., 1897	10.35
Burrundie ..	4 Jan., 1914	11.61			

(a) Approximate only, as gauge was washed away.

## HEAVY RAINFALLS—SOUTH AUSTRALIA, UP TO 1932, INCLUSIVE.

Name of Town or Locality.	Date.	Amount.
Wilmington	{ 28 Feb., 1921 ..	ins. 3.97
	{ 1 Mar., 1921 ..	7.12

## HEAVY RAINFALLS—VICTORIA, UP TO 1932, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Apollo Bay ..	28 Mar., 1932	11.08	Murrungowar ..	7 Sept., 1908	8.81
Balook ..	27 Sept., 1916	7.23	" ..	10 July, 1932	14.65
Blackwarry ..	12 May, 1925	7.65	Omeo Valley ..	22 Mar., 1926	7.90
Bruthen ..	28 Jan., 1920	7.00	Reedy Flat ..	28 Jan., 1920	7.08
Buchan ..	17 July, 1925	8.45	Sarsfield ..	13 July, 1925	7.05
Cann River ..	27 Feb., 1919	9.56	Tambo Crossing ..	13 July, 1923	8.89
Hotham Heights ..	8 Jan., 1926	8.40	" ..	29 Jan., 1920	7.80
Mallacoota ..	14 Mar., 1911	7.95	Tonghi Creek ..	27 Feb., 1919	9.90
Mt. Buffalo ..	6 June, 1917	8.53	Wroxham ..	27 Aug., 1919	7.65
" ..	5 Apr., 1929	7.47			

## HEAVY RAINFALLS—TASMANIA, UP TO 1932, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Cullenswood ..	5 June, 1923	10.50	Lottah ..	3 Mar., 1931	9.98
" ..	5 Apr., 1929	11.12	Mathinna ..	8-10 ,, 1911	15.79
" ..	3 Mar., 1931	7.03	" ..	5 Apr., 1929	13.25
Gormanston ..	3 ,, 1931	6.85	Riana ..	5 ,, 1929	11.08
Gould's Country ..	8-10 Mar., '11	15.33	Riversdale ..	27 ,, 1928	5.90
" ..	5 Apr., 1929	12.13	The Springs ..	30-31 Jan., '16	10.75
Lottah ..	8-10 Mar., '11	18.10	Triabunna ..	5 June, 1923	10.20

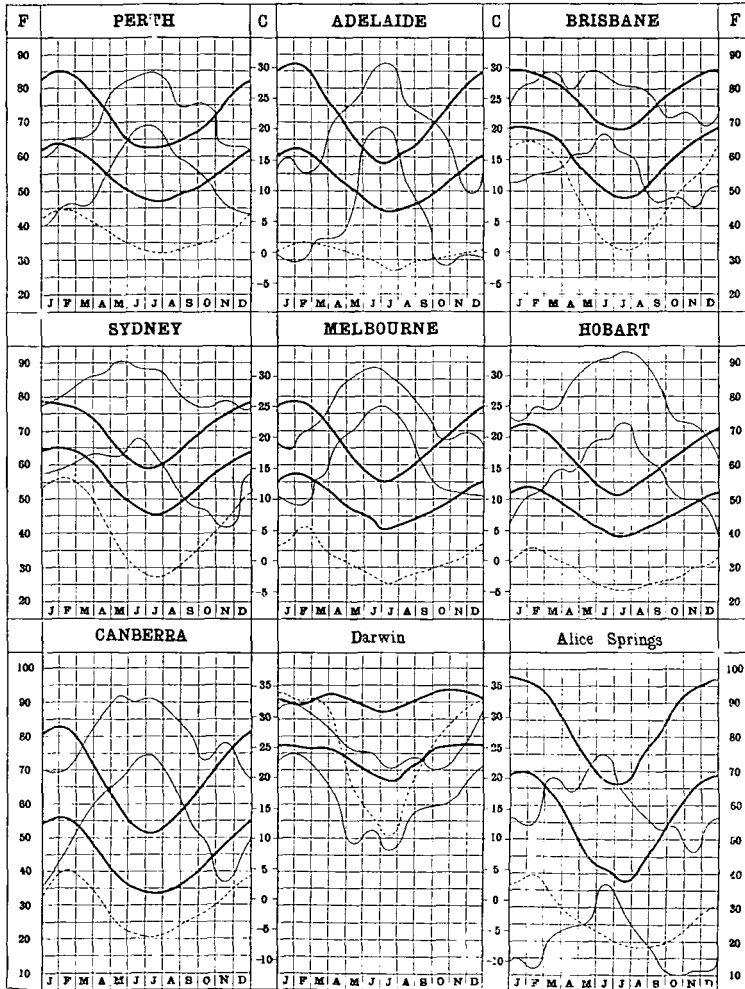
## HEAVY RAINFALLS—FEDERAL CAPITAL TERRITORY, UP TO 1932, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Canberra ..	27 May, 1925	6.84	Land's End ..	27 May, 1925	6.35
Cotter Junction ..	" "	7.13	Uriarra ..	16 Jan., 1891	5.35
Duntroon ..	" "	5.87	" ..	27 May, 1925	6.57
Fairlight ..	" "	6.25			

10. **Snowfall.**—Light snow has been known to fall occasionally so far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of the State of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria so far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the Australian Alps, where also the temperature falls below zero Fahrenheit during the night. In the ravines around Kosciusko and similar localities the snow never entirely disappears.

The antarctic "V"-shaped disturbances are always associated with the most pronounced and extensive snowfalls. The barometric gradients are very steep where the "trough line" extends northward, and the apexes are unusually sharp-pointed, and protrude into very low latitudes, sometimes even to the tropics.

ANNUAL FLUCTUATIONS OF NORMAL MAXIMUM AND MINIMUM TEMPERATURE AND HUMIDITY.



EXPLANATION—The upper and lower heavy lines in each graph represent the maximum and minimum temperatures respectively. The Fahrenheit temperature scales are shown on the outer edge of the sheet under "F" and the centigrade scales in the two inner columns under "C."

The broken line shows the normal absolute humidity in the form of 9 a.m. vapour pressures for which the figures in the outer "F" columns represent hundredths of an inch of barometric pressure.

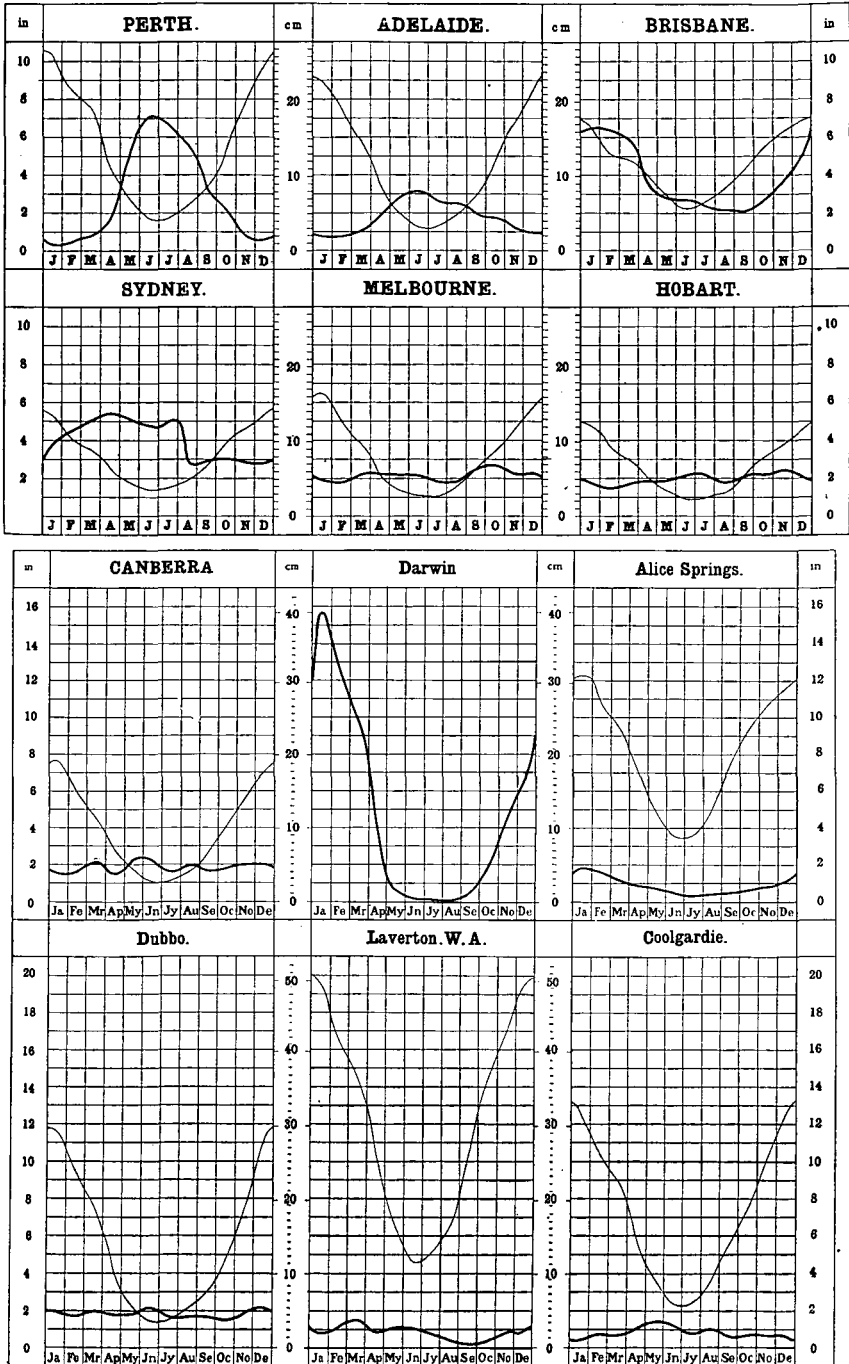
The upper and lower fine lines join the greatest and the least monthly means of relative humidity respectively, the figures under the outer columns "F" indicating percentage values.

The curves for temperature and vapour pressure joining the mean monthly values serve to show the annual fluctuation of these elements, but the relative humidity graphs joining the extreme values for each month do not indicate any normal annual variation.

Comparison of the maximum and minimum temperature curves affords a measure of the mean diurnal range of temperature. At Perth in the middle of January, for instance, there is normally a range of 21° from 63° F. to 84° F., but in June it is only 15° from 42° F. to 63° F.

The relative humidity curves illustrate the extreme range of the mean monthly humidity over a number of years.

MEAN MONTHLY RAINFALL AND EVAPORATION.



**EXPLANATION.**—On the preceding graphs thick lines denote rainfall, and thin lines evaporation, and show the fluctuation of the mean rate of fall *per month* throughout the year. The results, plotted from the Climatological Tables herein are shown in inches (see the outer columns), and the corresponding metric scale (centimetres) is shown in the two inner columns. The evaporation is not given for Darwin.

At Perth, Adelaide, Brisbane, Melbourne, Hobart, Canberra, Alice Springs, and Coolgardie the results have been obtained from jacketed tanks sunk in the ground. At Sydney and Dubbo sunken tanks without water jackets are used, whilst at Laverton (W.A.) the records are taken from a small portable jacket evaporation dish of 8 inches in diameter.

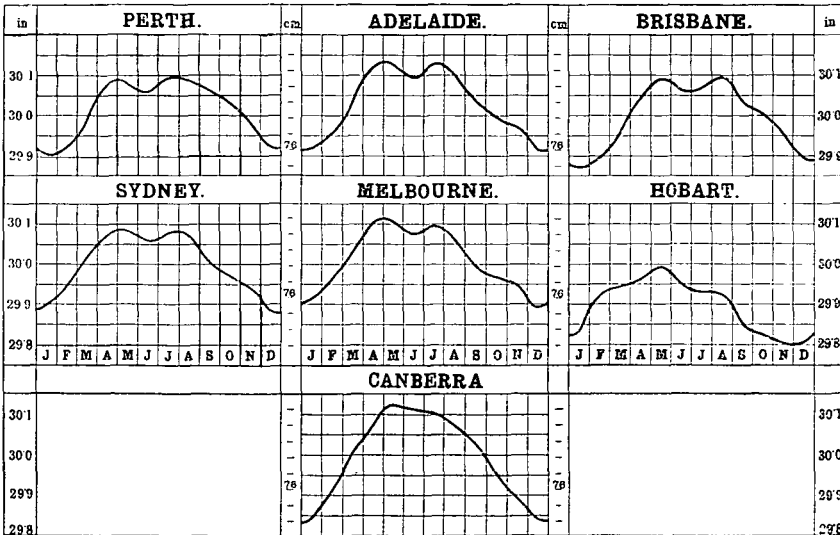
The distance for any date from the zero line to the curve represents the average number of inches, reckoned as per month, of rainfall at that date. Thus, taking the curves for Adelaide in the middle of January, the rain falls on the average at the rate of about three-fourths of an inch per month or, say, at the rate of about 9 inches per year. In the middle of June it falls at the rate of a little over 3 inches per month, or, say, at the rate of about 37 inches per year. At Dubbo, the evaporation is at the rate of nearly 11½ inches per month about the middle of January, and only about 1½ inches at the middle of June.

The mean annual rainfall and evaporation at the places indicated are given in the appended table.

**MEAN ANNUAL RAINFALL AND EVAPORATION.**

Place.	Rainfall.	Evapora- tion.	Place.	Rainfall.	Evapora- tion.
	In.	In.		In.	In.
Perth ..	34.87	66.18	Canberra ..	22.39	46.27
Adelaide ..	21.14	55.01	Darwin ..	60.22	—
Brisbane ..	45.13	56.06	Alice Springs ..	10.69	95.88
Sydney ..	47.71	39.20	Dubbo ..	22.07	66.37
Melbourne ..	26.13	39.20	Laverton, W.A.	9.70	145.52
Hobart ..	23.99	31.56	Coolgardie ..	10.19	84.99

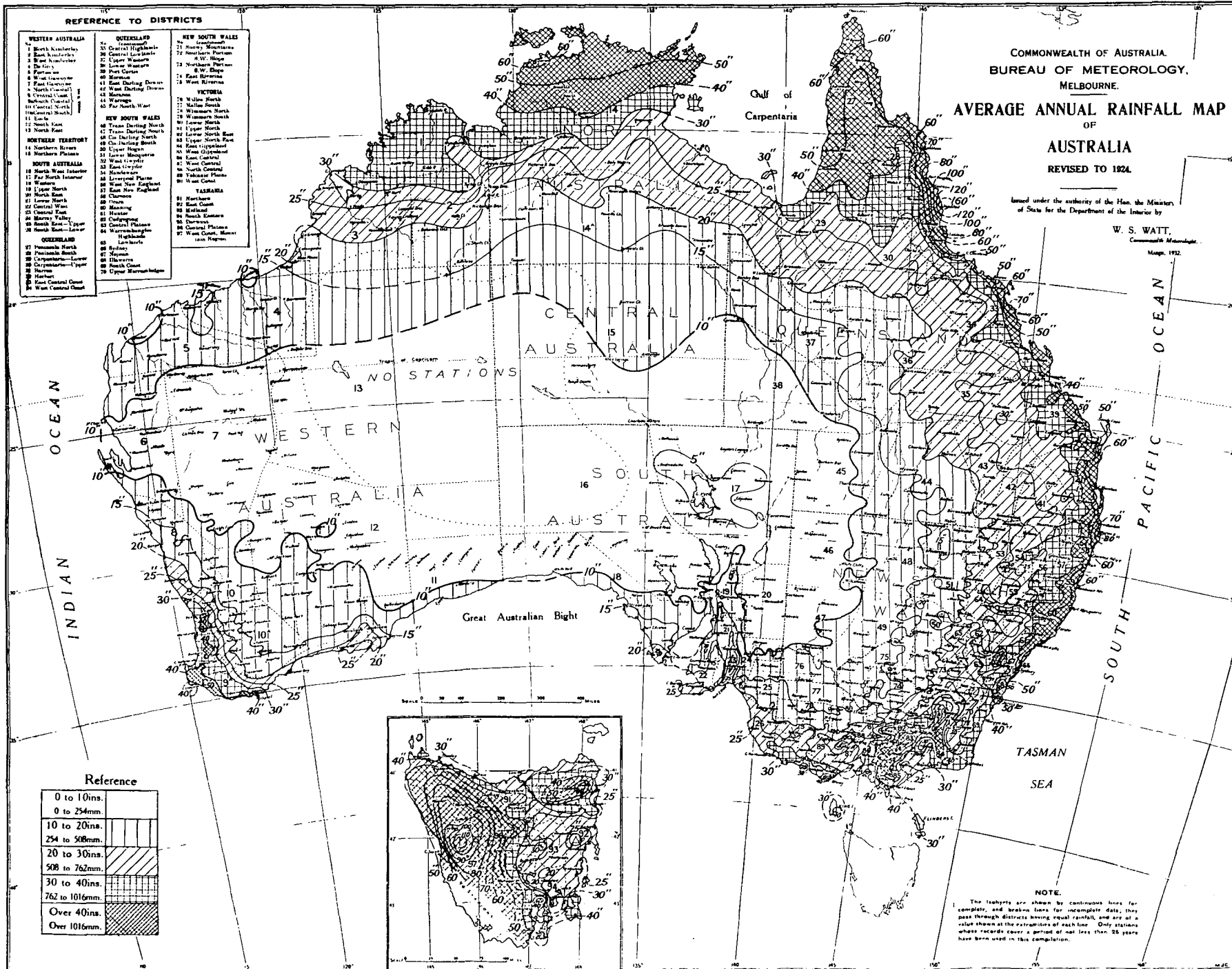
**MEAN BAROMETRIC PRESSURE.—CAPITAL CITIES.**



**EXPLANATION.**—The lines representing the yearly fluctuations of barometric pressure at the State capital cities are means for long periods, and are plotted from the Climatological Tables herein. The pressures are shown in inches on about 2½ times the natural scale, and the corresponding pressures in centimetres are also shown in the two inner columns, in which each division represents one millimetre.

**INTERPRETATION.**—Taking the Brisbane graph for purposes of illustration, it will be seen that the mean pressure in the middle of January is about 29.87 inches, and there are maxima in the middle of May and August of about 30.99 inches.





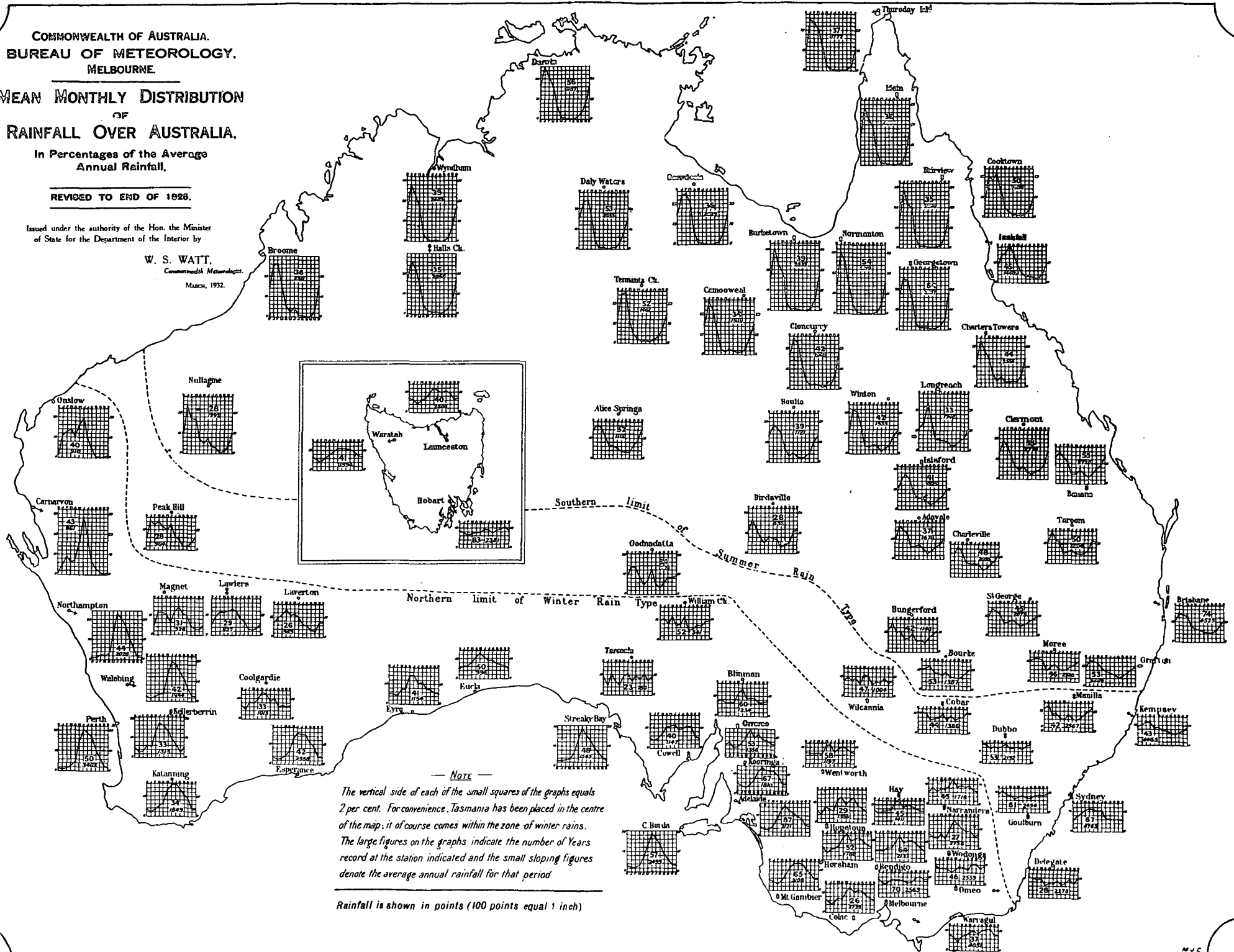
COMMONWEALTH OF AUSTRALIA.  
BUREAU OF METEOROLOGY,  
MELBOURNE.

MEAN MONTHLY DISTRIBUTION  
OF  
RAINFALL OVER AUSTRALIA,  
In Percentages of the Average  
Annual Rainfall.

REVISED TO END OF 1925.

Issued under the authority of the Hon. the Minister  
of State for the Department of the Interior by

W. S. WATT,  
Commonwealth Meteorologist.  
MARCH, 1932.



NOTE  
The vertical side of each of the small squares of the graphs equals 2 per cent. For convenience, Tasmania has been placed in the centre of the map; it of course comes within the zone of winter rains. The large figures on the graphs indicate the number of Years record at the station indicated and the small sloping figures denote the average annual rainfall for that period

Rainfall is shown in points (100 points equal 1 inch)



11. **Hail.**—Hail falls most frequently along the southern shores of the continent in the winter, and over south-eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast, a fact which lends strong support to the theory that hail is brought about by ascending currents. A summer rarely passes without some station experiencing a fall of stones exceeding in size an ordinary hen-egg, and many riddled sheets of light-gauge galvanized iron bear evidence of the weight and penetrating power of the stones.

The hailstorms occur most frequently when the barometric readings indicate a flat and unstable condition of pressure. They are almost invariably associated with tornadoes or tornadic tendencies, and on the east coast the clouds from which the stones fall are generally of a remarkable sepia-coloured tint.

12. **Barometric Pressures.**—The mean annual barometric pressure (corrected to sea-level and standard gravity) in Australia varies from 29.80 inches on the north coast to 29.92 inches over the central and 30.03 inches in the southern parts of the continent. In January, the mean pressure ranges from 29.70 inches in the northern and central areas to 29.95 inches in the southern. The July mean pressure ranges from 29.91 inches at Darwin to 30.11 inches at Alice Springs. Barometer readings corrected to mean sea-level and standard gravity have, under anticyclonic conditions in the interior of the continent, ranged as high as 30.78 inches (at Kalgoorlie on the 28th July, 1901) and have fallen as low as 27.55 inches. This lowest record was registered at Mackay during a tropical hurricane on the 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on the 10th March, 1918. The mean annual fluctuations of barometric pressure for the capitals of Australia are shown on the graph herein.

13. **Wind.**—Notes on the distinctive wind currents in Australia were given in preceding Year Books (see No. 6, page 83), but, owing to limitations of space, have not been included herein.

14. **Cyclones and Storms.**—The "elements" in Australia are ordinarily peaceful, and while destructive cyclones have visited various parts, more especially coastal areas, such visitations are rare, and may be properly described as erratic.

During the winter months, the southern shores of the continent are subject to cyclonic storms, evolved from the V-shaped depressions of the southern low-pressure belt. They are felt most severely over the south-western parts of Western Australia, to the south-east of South Australia, in Bass Strait, including the coast line of Victoria, and on the west coast of Tasmania. Apparently the more violent wind pressures from these cyclones are experienced in their northern half, or in that part of them which has a north-westerly to a south-westerly circulation.

The north-east coast of Queensland is occasionally visited by hurricanes from the north-east tropics. During the first four months of the year, these hurricanes appear to have their origin in the neighbourhood of the South Pacific Islands, their path being a parabolic curve first to the S.W. and finally towards the S.E. Only a small percentage, however, reach Australia, the majority recurring in their path to the east of New Caledonia.

Very severe cyclones, locally known as "willy willies," are peculiar to the north-west coast of Western Australia from the months of November to April inclusive. They apparently originate in the ocean in the vicinity of Cambridge Gulf, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these storms, like those from the north-east tropics, are very violent and destructive, and cause great havoc amongst the pearl-fishers. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the coastline, or cross the continent to the Great Australian Bight. When they take

the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

Some further notes on severe cyclones and on "southerly bursters," a characteristic feature of the eastern part of Australia, will be found in previous issues of the Official Year Book (see No. 6, pp. 84, 85, 86).

A special article dealing with "Australian Hurricanes and Related Storms" appeared in Official Year Book No. 16, pp. 80-84.

15. *Influences affecting Australian Climate.*—(i) *General.* Australian history does not cover a sufficient period, nor is the country sufficiently occupied, to ascertain whether or not the advance of settlement has materially affected the climate as a whole. Local changes have, however, taken place, a fact which suggests that settlement and the treatment of the land have a distinct effect on local conditions. For example, the mean temperature of Sydney shows a rise of two-tenths of a degree during the last twenty years, a change probably brought about by the great increase of residential and manufacturing buildings within the city and in the surrounding suburbs. Again, low-lying lands on the north coast of New South Wales, which originally were seldom subject to frosts, have, with the denudation of the surrounding hills from forests, experienced annual visitations, the probable explanation being that through the absence of trees the cold air of the high lands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forests on Climate.* As already indicated, forests doubtless exercise a great influence on local climate, and hence, to the extent that forestal undertakings will allow, the weather can be controlled by human agency. The direct action of forests is an equalizing one; thus, especially in equatorial regions, and during the warmest portion of the year, they considerably reduce the mean temperature of the air. They also reduce the diurnal extremes of shade temperatures by altering the extent of radiating surface by evaporation, and by checking the movement of air, and while decreasing evaporation from the ground, they increase the relative humidity. Vegetation greatly diminishes the rate of flow-off of rain and the washing away of surface soil, and when a region is protected by trees, a steadier water supply is ensured, and the rainfall is better conserved. In regions of snowfall, the supply of water to rivers is similarly regulated, and without this and the sheltering influence of ravines and "gullies," watercourses supplied mainly by melting snow would be subject to alternate periods of flooding and dryness. This is borne out in the case of the inland rivers, the River Murray, for example, which has never been known to become dry, deriving its steadiness of flow mainly through the causes indicated.

(iii) *Direct Influence of Forests on Rainfall.* Whether forests have a direct influence on rainfall is a debatable question, some authorities alleging that precipitation is undoubtedly induced by forests, while others take the opposite view.

Sufficient evidence exists, however, to prove that, even if the rainfall has not increased, the beneficial climatic effect of forest lands more than warrants their protection and extension. Rapid rate of evaporation, induced by both hot and cold winds, injures crops and makes life uncomfortable on the plains, and, while it may be doubted that the forest aids in increasing precipitation, it must be admitted that it does check winds and the rapid evaporation due to them. Trees as wind-breaks have been successfully planted in central parts of the United States, and there is no reason why similar experiments should not be successful in many parts of the treeless interior of Australia. The belts should be planted at right angles to the direction of the prevailing parching winds, and if not more than half a mile apart will afford shelter to the enclosed areas.

In previous issues some notes on observations made in other countries were added (see Official Year Book No. 6, pp. 86 and 95).

16. *Rainfall and Temperatures, Various Cities.*—The following table shows rainfall and temperature for various important cities throughout the world, for the Federal Capital, and for the capitals of the Australian States.

## RAINFALL AND TEMPERATURE—VARIOUS CITIES.

Place.	Height above M.S.L.	Annual Rainfall.			Temperature.						
		Average.	Highest.	Lowest.	(a) Mean Summer.		Highest on Record.	Lowest on Record.		Average Hottest Month.	Average Coldest Month.
					Fahr.	Fahr.		Fahr.	Fahr.		
Ft.	Ins.	Ins.	Ins.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.	
Amsterdam ..	6	27.29	40.59	17.60	63.2	36.8	90.0	4.1	64.4	35.4	
Auckland ..	125	43.88	74.15	26.32	66.2	52.5	91.0	31.9	67.1	51.8	
Athens ..	351	15.48	33.33	4.56	79.2	49.1	109.4	19.6	81.0	47.4	
Bergen ..	72	77.09	111.58	44.49	56.8	34.2	88.5	4.8	57.9	33.6	
Berlin ..	161	22.72	30.04	14.25	64.8	33.0	98.6	-13.0	66.0	31.8	
Berne ..	1,877	36.30	58.23	24.69	62.2	30.1	91.4	-3.6	64.4	28.0	
Bombay ..	37	71.15	114.89	33.41	83.5	75.1	100.0	55.9	84.8	74.2	
Breslau ..	482	22.52	32.56	16.50	64.1	33.5	100.0	-23.4	65.5	29.3	
Brussels ..	328	28.35	41.18	17.73	62.6	36.0	95.5	-4.4	63.7	34.5	
Budapest ..	500	25.20	35.28	16.79	68.6	30.2	98.6	-5.1	70.4	28.2	
Buenos Ayres ..	82	38.78	79.72	20.04	72.7	50.9	103.1	22.3	73.8	50.0	
Calcutta ..	21	61.82	98.48	38.43	85.6	68.0	108.2	44.2	86.0	66.4	
Capetown ..	40	25.50	36.72	17.71	68.1	54.7	102.0	34.0	68.8	53.9	
Caracas ..	3,420	30.03	47.36	23.70	68.3	65.3	87.8	48.2	69.2	63.7	
Chicago ..	823	33.28	45.86	24.52	70.0	26.1	103.0	-23.0	72.4	23.7	
Christchurch ..	25	25.16	35.30	13.54	61.3	43.3	95.7	21.3	61.6	42.4	
Christiana (Oslo) ..	75	23.23	32.21	16.26	61.0	24.5	95.0	-21.1	62.6	23.9	
Colombo ..	40	83.83	139.70	51.60	81.5	79.9	95.8	65.0	82.6	79.1	
Constantinople ..	245	28.75	42.74	14.78	74.0	43.5	103.6	-13.0	75.7	42.0	
Copenhagen ..	10	20.79	25.83	15.47	60.4	33.3	85.5	-3.3	61.9	32.4	
Dresden ..	115	26.80	34.49	17.72	62.9	32.4	93.4	-15.3	64.4	31.5	
Dublin ..	47	27.66	35.56	16.60	59.4	42.0	87.2	13.3	60.5	41.6	
Dunedin ..	300	36.96	54.51	22.15	56.3	42.6	94.0	23.0	57.0	41.7	
Durban ..	260	40.79	71.27	27.24	75.6	64.4	110.6	41.1	76.7	63.8	
Edinburgh ..	441	25.21	32.05	16.44	55.8	38.8	87.7	5.0	57.2	36.3	
Geneva ..	1,328	33.48	46.89	21.14	64.4	33.7	..	..	66.2	32.2	
Genoa ..	157	51.29	108.22	28.21	73.8	46.8	94.5	16.7	75.4	45.5	
Glasgow ..	184	38.49	56.18	29.05	52.7	41.0	84.9	6.6	58.0	38.4	
Greenwich ..	149	23.50	35.54	16.38	62.0	39.5	100.0	6.9	63.5	38.5	
Hong Kong ..	109	84.28	119.72	45.84	86.2	64.8	97.0	32.0	86.7	62.9	
Johannesburg ..	5,750	31.63	50.00	21.66	65.4	54.4	94.0	23.3	68.2	48.9	
Leipzig ..	384	24.69	31.37	17.10	63.1	31.5	97.3	-14.8	64.8	30.6	
Leningrad ..	16	21.30	29.52	13.75	61.1	17.4	97.0	-38.2	63.7	15.2	
Lisbon ..	312	29.18	52.79	17.32	69.6	51.3	94.1	32.5	70.2	49.3	
London (Kew) ..	18	23.80	38.20	16.64	61.2	39.8	94.0	9.4	62.7	38.9	
Madras ..	22	49.85	88.41	18.45	89.0	76.8	113.0	57.5	89.9	76.1	
Madrid ..	2,149	16.23	27.48	9.13	73.0	41.2	107.1	10.5	75.7	39.7	
Marseilles ..	246	22.24	43.03	12.28	70.5	45.3	100.4	11.7	72.3	44.6	
Moscow ..	526	18.94	29.28	12.07	63.4	14.7	99.5	-44.5	66.1	11.9	
Naples ..	489	34.00	56.58	21.75	73.6	48.0	99.1	23.9	75.4	46.8	
New York ..	314	44.63	58.68	33.17	71.4	31.8	102.0	-13.0	73.5	30.2	
Ottawa ..	236	33.40	53.79	25.63	67.2	14.1	98.0	-33.0	69.7	12.0	
Paris ..	164	22.64	29.57	16.46	63.5	37.2	101.1	-14.1	64.9	36.1	
Pekin ..	143	24.40	36.00	18.00	77.7	25.6	114.0	-5.0	79.2	23.6	
Quebec ..	296	40.50	53.79	32.12	63.5	12.4	96.0	-34.0	66.3	10.1	
Rome ..	166	32.57	57.89	12.72	74.3	46.0	104.2	17.2	76.1	44.6	
San Francisco ..	155	22.27	38.82	9.00	58.8	50.5	101.0	29.0	59.3	49.5	
Shanghai ..	21	45.00	62.52	27.92	78.0	41.1	102.9	10.2	80.4	37.8	
Singapore ..	8	91.99	158.68	32.71	81.2	78.6	94.2	63.4	81.5	78.3	
Stockholm ..	144	19.09	28.27	11.81	59.5	27.3	96.8	-25.6	61.9	26.4	
Tokio ..	65	61.45	86.37	45.72	74.8	39.2	97.9	17.2	77.7	37.5	
Trieste ..	85	42.94	63.14	26.57	73.9	41.3	99.5	14.0	76.3	39.9	
Vienna ..	663	24.50	33.90	16.50	65.7	30.4	97.7	-8.0	67.1	28.0	
Vladivostok ..	55	19.54	33.60	9.39	63.9	11.0	95.7	-21.8	69.4	6.1	
Washington ..	112	43.50	61.33	30.85	74.7	34.5	106.0	-15.0	76.8	32.9	
Wellington (N.Z.) ..	10	48.65	67.68	27.83	61.8	48.6	88.0	28.6	62.5	47.7	
Zürich ..	1,542	45.15	78.27	29.02	63.3	31.3	94.1	-0.8	65.1	29.5	

## FEDERAL CAPITAL.

				(a)	(b)					
Canberra ..	1,837	22.39	33.71	16.31	68.1	43.9	104.2	14.0	68.9	42.6

## STATE CAPITALS.

				(a)	(b)					
Perth ..	197	34.87	49.22	20.21	73.0	56.0	108.4	34.2	73.9	55.3
Adelaide ..	140	21.14	30.87	11.39	73.0	53.1	116.3	32.0	74.0	51.8
Brisbane ..	137	45.28	88.26	16.17	76.6	59.8	108.9	36.1	77.2	58.5
Sydney ..	138	47.37	82.76	21.49	71.0	54.2	108.5	35.7	71.6	52.8
Melbourne ..	115	25.61	38.04	15.61	66.6	50.0	111.2	27.0	67.6	48.7
Hobart ..	177	23.99	43.39	13.43	61.5	46.9	105.2	27.0	62.4	45.8

(a) Mean of the three hottest months. (b) Mean of the three coldest months.

17. Climatological Tables.—The means, averages, extremes, totals, etc., for a number of climatological elements have been determined from long series of observations at the Australian capitals up to and including the year 1932. These are given in the following tables:—

CLIMATOLOGICAL DATA—CANBERRA, FEDERAL CAPITAL TERRITORY.  
 LAT. 35° 20' S., LONG. 149° 15' E. HEIGHT ABOVE M.S.L. 1,837 FT.  
 BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.						Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.		Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
		15	16			16	16				
No. of yrs. over which observation extends	15	16	16	16	16	16	11	5	14	7	
January .. .. .	29.841	306 30/13	0.06	3,164	SE	W	7.77	1	4.1	11	
February .. .. .	29.908	465 20/21	0.04	2,502	ES E	W	5.96	5	4.6	9	
March .. .. .	30.004	434 8/13	0.03	2,368	SE	E	4.50	6	4.5	9	
April .. .. .	30.072	279 27/13	0.02	1,979	SE	W & N W	2.69	3	4.5	6	
May .. .. .	30.132	283 15/13	0.02	1,952	E	N	1.71	1	5.0	9	
June .. .. .	30.114	360 10/15	0.03	2,148	N	N W	1.03	1	5.0	6	
July .. .. .	30.103	282 7/31	0.03	2,141	N W	W	1.17	1	5.0	7	
August .. .. .	30.076	276 23/25	0.03	2,267	N	N W	1.65	2	4.8	7	
September .. .. .	30.033	374 (a)	0.04	2,641	SE	N	2.81	1	4.2	10	
October .. .. .	29.950	376 10/12	0.04	2,811	W	N W	4.16	2	4.8	8	
November .. .. .	29.897	410 18/24	0.05	2,829	W	N W	5.77	4	4.7	9	
December .. .. .	29.844	289 7/24	0.05	2,876	W	W	7.05	6	4.8	6	
Year { Totals .. .. .	29.998	—	0.04	2,473	SE & W	N W	46.27	33	—	97	
Extremes .. .. .	—	465 20/2/21	—	—	—	—	—	—	4.7	—	

(a) 10 and 16/1912.

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
	16	16	16	16	16		(a)	14	
No. of yrs. over which observation extends	16	16	16	16	16	16	(a)	14	10
January .. .. .	82.4	55.1	68.8	104.2 28/32	38.8 25/28	65.4	—	36.0 4/17	235.9
February .. .. .	82.4	55.4	68.9	102.6 16/19	36.4 24/32	66.2	—	27.0 22/31	198.6
March .. .. .	75.9	51.1	63.5	97.0 18/27	32.2 22/20	64.8	—	25.5 24/17	215.4
April .. .. .	66.9	44.0	55.5	83.0 1/25	26.5 29/17	56.5	—	17.5 29/17	197.3
May .. .. .	59.0	37.7	48.4	74.7 9/19	19.0 30/24	55.7	—	12.0 28/20	150.7
June .. .. .	53.3	34.8	44.0	66.2 5/17	18.2 (d)	48.0	—	12.1 15/29	127.6
July .. .. .	51.8	33.4	42.6	65.0 8/19	14.0 19/24	51.0	—	10.0 19/24	142.5
August .. .. .	55.4	34.8	45.1	73.0 (b)	18.0 5/19	55.0	—	11.8 5/19	173.7
September .. .. .	61.3	38.4	49.8	83.2 27/19	25.0 1/28	58.2	—	18.5 25/27	198.4
October .. .. .	67.5	42.9	55.2	93.8 31/19	27.0 2/18	66.8	—	20.0 (e)	230.2
November .. .. .	74.8	48.2	61.5	96.6 1/19	28.1 24/15	68.5	—	25.8 2/18	223.4
December .. .. .	79.8	53.2	66.5	98.0 (c)	32.0 3/24	66.0	—	31.0 (f)	238.9
Year { Averages .. .. .	67.5	44.1	55.8	—	—	—	—	—	(g) 2,332.6
Extremes .. .. .	—	—	—	104.2 28/1/32	14.0 19/7/24	90.2	(f)	10.0 19/7/24	—

(a) Not available.  
 (e) 1 and 3/1923.

(b) 28/1923 and 23/1924.  
 (f) 1/1923 and 15 and 16/1931.

(c) 12/1914 and 31/1931.  
 (g) Yearly normal.

(d) 15 and 16/1929.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).				Rainfall (inches).				Dew.	
		Mean 9 a.m.	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Raln.	Greatest Monthly.	Least Monthly.		Greatest in One Day.
No. of yrs. over which observation extends	14	14	14	14	18	18	18	18	18	(a)	
January .. .. .	0.369	53	69	39	1.41	5	4.30 1927	0.07 1919	2.92 6/27	—	
February .. .. .	0.405	60	70	47	1.56	6	3.73 1924	0.13 1926	2.75 23/16	—	
March .. .. .	0.382	68	79	56	2.34	7	5.81 1914	0.21 1924	1.86 7/20	—	
April .. .. .	0.312	74	86	63	1.52	7	2.87 1916	0.20 1925	1.94 8/21	—	
May .. .. .	0.244	80	92	67	2.24	7	13.37 1925	0.20 1912	6.84 27/25	—	
June .. .. .	0.218	84	90.	73	2.17	9	5.86 1931	0.45 1927	3.95 22/25	—	
July .. .. .	0.203	83	91	74	1.67	9	3.77 1912	0.25 1913	1.78 1/20	—	
August .. .. .	0.219	80	87	67	2.02	10	3.23 1929	0.01 1914	1.90 18/25	—	
September .. .. .	0.254	72	81	55	1.64	8	5.26 1915	0.36 1928	2.18 20/15	—	
October .. .. .	0.282	62	73	48	1.88	9	4.59 1917	0.64 1914	1.50 7/30	—	
November .. .. .	0.331	58	78	37	1.96	8	6.95 1924	0.09 1918	2.38 1/23	—	
December .. .. .	0.365	56	70	45	1.98	7	4.49 1919	0.11 1925	2.10 28/29	—	
Year { Totals .. .. .	—	—	—	—	22.39	92	—	—	—	—	
Averages .. .. .	0.299	69	—	—	—	—	—	—	—	—	
Extremes .. .. .	—	—	92	37	—	—	13.37 5/1925	0.01 8/1914	6.84 27/25	—	

(a) Not available.

CLIMATOLOGICAL DATA—PERTH, WESTERN AUSTRALIA.

LAT. 31° 57' S., LONG. 115° 50' E. HEIGHT ABOVE M.S.L. 197 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. M.p. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction. 9 a.m. 3 p.m.				
No. of yrs. over which observation extends	48	35	35	35	35	34	35	25	36
January ..	29.908	797 27/98	0.67	11,099	ESE E SSW	10.45	1.6	2.8	14.6
February ..	29.926	650 6/08	0.61	9,646	ESE E SSW	8.59	1.4	3.1	11.9
March ..	29.987	651 6/13	0.52	9,847	ESE E SSW	7.03	1.3	3.5	12.1
April ..	30.069	955 25/00	0.39	8,166	E NE E SSW	4.73	1.4	4.4	8.1
May ..	30.068	825 29/32	0.36	8,156	N E E S W	2.74	2.2	5.4	5.4
June ..	30.057	914 19/27	0.35	7,927	N NE W N W	1.77	2.3	5.7	5.8
July ..	30.086	1,015 20/26	0.40	8,603	N NE W	1.77	2.1	5.7	5.0
August ..	30.086	866 15/03	0.41	8,728	N NE W	2.34	1.6	5.6	5.4
September ..	30.061	864 11/05	0.45	8,339	N NE W S W	3.36	1.3	4.9	6.3
October ..	30.029	809 6/16	0.52	9,790	SSE E S W	7.64	1.3	3.9	8.5
November ..	29.993	777 18/97	0.57	9,987	ESE E SSW	9.86	1.7	3.1	12.6
December ..	29.925	776 6/22	0.63	10,810	ESE E SSW	9.86	1.7	3.1	12.6
Year { Totals ..	—	—	—	—	E S W	66.18	19.2	—	99.8
Year { Averages ..	30.016	—	0.49	9,300	—	—	—	4.4	—
Year { Extremes ..	—	1,015 20/7/26	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends	36	36	36	36	36	36	34	34	35
January ..	84.6	63.2	73.9	108.4 28/21	48.6 20/25	59.8	177.3 22/14	40.4 1/21	323.0
February ..	84.7	63.2	73.9	107.4 4/23	47.7 1/02	59.7	169.0 4/99	39.8 1/21	271.8
March ..	81.3	61.4	71.3	106.4 14/22	45.8 8/03	60.6	167.0 19/18	36.7 8/03	269.1
April ..	76.1	57.3	66.7	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 20/14	216.4
May ..	68.8	52.6	60.7	90.4 2/07	34.3 11/14	56.1	142.2 8/24	25.3 11/14	175.7
June ..	64.1	49.5	56.8	81.7 2/14	35.0 30/20	46.7	135.5 9/14	26.5 30/20	143.4
July ..	62.7	47.9	55.3	76.4 21/21	34.2 7/16	42.2	132.2 13/15	25.1 30/20	163.3
August ..	63.7	48.2	55.9	81.0 12/14	35.3 31/08	45.7	145.1 29/21	27.9 10/11	184.3
September ..	66.2	50.2	58.2	90.9 30/18	38.8 18/00	52.1	153.6 29/16	29.2 21/16	206.4
October ..	69.0	52.6	60.8	95.3 30/22	40.0 16/31	55.3	154.0 29/14	29.8 16/31	240.2
November ..	75.5	56.8	66.1	104.6 24/13	42.0 1/04	62.6	167.0 30/25	35.5 (a)	288.0
December ..	81.2	60.8	71.0	107.9 20/04	48.0 2/10	59.9	168.7 25/15	39.0 12/20	325.5
Year { Averages ..	73.2	55.3	64.2	—	—	—	—	—	2807.1
Year { Extremes ..	—	—	—	108.4 28/1/21	34.2 7/7/16	74.2	177.3 22/1/14	25.1 30/7/20	(b)

(a) 6/1910 and 14/1912.

(b) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).				Rainfall (inches).				Dew. Mean No. of Days Dew.
		Mean 9 a.m.	Mean 9 p.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	
No. of yrs. over which observation extends	36	36	36	36	57	57	57	57	57	36
January ..	0.439	52	61	41	0.34	3	2.17 1879	0.00 (a)	1.74 27/79	2.7
February ..	0.446	53	65	46	0.42	3	2.98 1915	0.00 (a)	1.63 26/15	3.8
March ..	0.430	57	66	46	0.77	5	4.50 1896	0.00 (a)	2.06 26/23	6.2
April ..	0.397	62	73	51	1.70	7	5.85 1926	0.00 1920	2.62 30/04	9.8
May ..	0.372	74	81	61	5.12	14	12.13 1879	0.98 1903	2.80 20/79	12.6
June ..	0.341	78	83	68	7.02	17	12.80 1923	2.16 1877	3.90 10/20	12.8
July ..	0.329	79	84	69	6.77	17	12.28 1926	2.42 1876	3.00 4/91	13.1
August ..	0.323	74	79	62	5.74	18	12.21 1928	0.46 1902	2.79 7/03	11.6
September ..	0.341	68	75	58	3.44	15	7.84 1923	1.34 1916	1.82 4/31	10.5
October ..	0.349	61	75	54	2.19	12	7.87 1890	0.49 1892	1.38 15/10	6.3
November ..	0.382	54	63	46	0.78	6	2.78 1916	0.00 1891	1.11 30/03	3.8
December ..	0.411	50	63	44	0.58	4	3.05 1888	0.00 { 1886	1.72 1/88	2.9
Year { Totals ..	—	—	—	—	34.87	121	—	—	—	96.1
Year { Averages ..	0.374	62	—	—	—	—	—	—	—	—
Year { Extremes ..	—	—	84	41	—	—	12.80 6/1923	Nil (b)	3.90 10/6/20	—

(a) Various years.

(b) Jan., Feb. March, April, Nov. and Dec., various years.

CLIMATOLOGICAL DATA—ADELAIDE, SOUTH AUSTRALIA.

LAT. 34° 56' S., LONG. 138° 35' E. HEIGHT ABOVE M.S.L. 140 FT.  
 BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F., Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (Inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.				
No. of yrs. over which observation extends	76	55	55	55	55	63	61	65	51
January .. .. .	29.917	758 19/99	0.33	7,864	S W S W	9.06	2.3	3.5	8.6
February .. .. .	29.952	691 22/96	0.28	6,645	N E S W	7.37	2.0	3.5	7.4
March .. .. .	30.039	628 9/12	0.23	6,596	S S W	5.89	2.2	4.0	7.2
April .. .. .	30.118	773 10/96	0.21	6,084	N E S W	3.50	1.6	5.0	4.5
May .. .. .	30.124	760 9/80	0.21	6,256	N E N W	2.04	1.6	5.8	2.3
June .. .. .	30.099	750 12/78	0.24	6,511	N E N	1.25	2.0	6.2	1.8
July .. .. .	30.124	674 25/82	0.24	6,701	N E N W	1.29	1.7	5.9	1.8
August .. .. .	30.097	773 31/97	0.27	7,143	N E S W	1.88	2.2	5.6	2.6
September .. .. .	30.041	720 2/87	0.30	7,218	N N E S W	2.86	2.3	5.2	3.4
October .. .. .	29.996	768 28/98	0.33	7,832	N N E S W	4.77	3.4	5.0	4.0
November .. .. .	29.978	677 2/04	0.32	7,484	S W S W	6.61	3.3	4.6	5.4
December .. .. .	29.919	675 12/91	0.33	7,853	S W S W	8.49	2.6	3.9	7.4
Year { Totals .. .. .	—	—	—	—	—	55.01	27.2	—	56.4
Year { Averages .. .. .	30.034	773 (a)	0.27	7,016	N E S W	—	—	4.8	—
Year { Extremes .. .. .	—	—	—	—	—	—	—	—	—

(a) 10/4/96 and 31/8/97.

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun	Lowest on Grass.	
No. of yrs. over which observation extends	76	76	76	76	76	76	55	72	51
January .. .. .	86.1	61.5	73.8	116.3 26/58	45.1 21/84	71.2	180.0 18/82	36.5 14/79	311.3
February .. .. .	86.1	62.0	74.0	113.6 12/99	45.5 23/18	68.1	170.5 10/00	35.8 23/26	263.0
March .. .. .	80.8	58.8	69.8	108.0 12/61	44.8 —/57	63.2	174.0 17/83	33.8 27/80	239.8
April .. .. .	73.3	54.6	63.9	98.0 10/66	39.6 15/59	58.4	155.0 1/83	30.2 16/17	180.8
May .. .. .	65.7	50.3	58.0	89.5 4/21	36.9 (a)	52.6	148.2 12/79	25.6 19/28	149.0
June .. .. .	60.4	46.7	53.5	76.0 23/65	32.5 27/76	43.5	138.8 18/79	22.9 12/13	123.1
July .. .. .	58.9	44.7	51.8	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	136.8
August .. .. .	62.0	45.9	53.9	85.0 31/11	32.3 17/59	52.7	140.0 31/92	22.8 11/29	164.3
September .. .. .	66.3	48.0	57.2	90.7 23/82	32.7 4/58	58.0	160.5 23/82	25.0 25/27	185.0
October .. .. .	72.4	51.4	61.9	102.9 21/22	36.0 —/57	66.9	162.0 30/21	27.8 (c)	227.3
November .. .. .	78.6	55.4	67.0	113.5 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	204.0
December .. .. .	83.3	59.0	71.1	114.6 29/31	43.0 (b)	71.6	175.7 7/99	32.5 4/84	302.9
Year { Averages .. .. .	72.8	53.2	63.0	116.3	32.0	84.3	180.0	22.1	2547.3
Year { Extremes .. .. .	—	—	—	26/1/58	24/7/08	—	18/1/82	30/7/29	(d)

(a) 26/1895 and 24/1904.

(b) 16/1861 and 4/1906.

(c) 2/1918 and 4/1931.

(d) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (Inches).	Rel. Hum. (%).				Rainfall (Inches).				Dew. Mean No. Days Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest In One Day.	
No. of yrs. over which observation extends	65	65	65	65	94	94	94	94	94	61
January .. .. .	0.337	38	59	30	0.70	4	4.00 1850	Nil (a)	2.30 2/89	3.7
February .. .. .	0.354	40	56	30	0.74	6	6.09 1925	Nil (a)	5.57 7/25	5.5
March .. .. .	0.345	46	58	36	1.01	6	4.60 1878	Nil (a)	3.50 5/78	10.5
April .. .. .	0.335	55	72	37	1.73	9	6.78 1853	0.03 1923	3.15 5/60	13.7
May .. .. .	0.316	67	76	49	2.73	14	7.75 1875	0.20 1801	2.75 1/53	15.8
June .. .. .	0.298	76	84	67	3.13	16	8.58 1916	0.42 1886	2.11 1/20	15.9
July .. .. .	0.278	76	87	68	2.66	16	5.38 1865	0.37 1899	1.75 10/65	17.1
August .. .. .	0.285	69	77	54	2.52	16	6.24 1852	0.35 1914	2.23 19/51	16.6
September .. .. .	0.296	60	72	44	2.06	14	5.83 1923	0.43 1896	1.59 20/23	13.6
October .. .. .	0.299	51	67	29	1.73	11	3.83 1870	0.17 1914	2.24 16/08	12.8
November .. .. .	0.307	42	57	31	1.13	7	3.55 1851	0.07 1885	1.88 28/58	6.7
December .. .. .	0.323	39	50	31	1.00	6	3.98 1861	Nil 1904	2.42 23/13	4.4
Year { Totals .. .. .	—	—	—	—	21.14	123	—	—	—	138.3
Year { Averages .. .. .	0.309	53	—	—	—	—	8.58 6/16	Nil (b)	5.57 7/2/25	—
Year { Extremes .. .. .	—	—	87	29	—	—	—	—	—	—

(a) Various years.

(b) January, February, March, December, various years.

CLIMATOLOGICAL DATA—BRISBANE, QUEENSLAND.

LAT. 27° 28' S., LONG. 153° 2' E. HEIGHT ABOVE M.S.L. 137 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. M. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.						Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.						
					9 a.m.	3 p.m.					
No. of yrs. over which observation extends	46	22	22	22	24	24	24	46	41	24	
January ..	29.869	361 1/22	0.12	4,707	SE	E & NE	6.656	7.0	5.7	3.3	
February ..	29.904	503 5/31	0.12	4,395	S & SE	NE & E	5.468	5.7	5.8	3.3	
March ..	29.964	488 1/29	0.09	4,208	S	E & E	5.010	4.2	5.3	4.8	
April ..	30.043	400 3/25	0.08	3,916	S	E & E	3.980	3.8	4.5	7.8	
May ..	30.086	363 7/16	0.06	3,570	S	E	3.074	3.3	4.3	8.8	
June ..	30.071	455 14/28	0.07	3,713	S W & S	S & W	2.363	2.5	4.3	8.8	
July ..	30.071	359 2/23	0.06	3,586	S & S W	S W	2.700	2.7	3.6	13.0	
August ..	30.097	331 6/23	0.08	3,861	S & S W	S W & NE	3.454	3.8	3.4	12.6	
September ..	30.042	329 4/31	0.08	3,735	S & S W	NE & E	4.351	6.0	3.5	12.5	
October ..	30.003	325 25/18	0.09	4,269	S	NE	5.678	6.9	4.1	8.9	
November ..	29.960	371 10/28	0.11	4,507	SE & NE	NE	6.361	8.8	4.7	6.1	
December ..	29.889	467 15/26	0.11	4,702	SE	NE	7.056	9.3	5.3	3.9	
Year { Totals ..	—	—	—	—	—	—	56.151	64.5	—	92.8	
Year { Averages ..	30.000	—	0.09	4,097	—	NE	—	—	4.6	—	
Year { Extremes ..	—	503 5/2/31	—	—	—	—	—	—	—	—	

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends	46	46	46	46	46	46	41	46	24
January ..	85.5	69.0	77.2	108.9 14/02	58.8 4/93	50.1	166.4 10/17	49.9 4/93	227.5
February ..	84.5	68.6	76.5	105.7 21/25	58.5 23/31	47.2	165.2 6/10	49.1 22/31	205.9
March ..	82.3	66.3	74.3	99.4 5/19	52.4 29/13	47.0	161.7 4/25	45.4 29/13	212.8
April ..	79.0	61.6	70.3	95.2 (a)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	209.8
May ..	73.5	55.4	64.4	90.3 21/23	41.3 24/99	49.0	147.0 1/10	29.8 8/97	202.5
June ..	69.3	51.1	60.2	88.9 19/18	36.3 29/08	52.6	136.0 3/18	25.4 23/88	177.9
July ..	68.5	48.5	58.5	83.4 28/98	36.1 (b)	47.3	146.1 20/15	23.9 11/90	213.4
August ..	71.3	49.9	60.6	88.5 25/28	37.4 6/87	51.1	141.9 20/17	27.1 9/99	236.7
September ..	75.7	54.8	65.2	92.2 16/12	40.7 1/96	54.5	155.5 26/03	30.4 1/89	239.8
October ..	79.6	59.9	69.8	101.4 18/93	43.3 3/99	58.1	157.4 31/18	34.9 8/89	255.5
November ..	82.7	64.2	73.5	106.1 18/13	48.5 2/05	57.6	162.3 7/89	38.8 1/05	247.1
December ..	85.0	67.4	76.2	105.9 26/93	56.4 13/12	49.5	161.7 27/26	49.1 3/94	247.9
Year { Averages ..	78.1	59.7	68.9	108.9	36.1 (c)	72.8	166.4	23.9	2676.8
Year { Extremes ..	—	—	—	141/1/02	—	—	10/1/17	11/7/90	(d)

(a) 9/96 and 5/03. (b) 12/94 and 2/96. (c) 12/7/94 and 2/7/96. (d) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%)				Rainfall (inches).				Dew. Mean No. Days Dew.	
		Mean 9 a.m.	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.		Greatest In One Day.
No. of yrs. over which observation extends	46	46	46	46	81	73	81	81	63	46	
January ..	0.640	66	79	53	6.45	14	27.72 1895	0.32 1919	18.31 21/87	8.3	
February ..	0.647	69	82	55	6.34	14	40.39 1893	0.58 1849	10.61 6/31	8.3	
March ..	0.616	72	85	56	5.77	15	34.04 1870	Nil 1849	11.18 14/08	11.8	
April ..	0.523	72	80	60	3.76	12	15.28 1867	0.05 1897	4.97 19/28	14.3	
May ..	0.425	73	85	61	2.81	10	13.85 1876	Nil 1846	5.62 9/79	15.4	
June ..	0.360	74	84	67	2.79	9	14.03 1873	Nil 1847	6.01 9/93	13.5	
July ..	0.327	72	81	61	2.20	8	8.46 1889	Nil 1841	3.54 (c)	15.1	
August ..	0.349	69	80	56	2.01	7	14.67 1879	Nil (a)	4.89 12/87	13.7	
September ..	0.410	64	76	47	2.00	8	5.43 1886	0.10 1907	2.46 2/94	13.1	
October ..	0.473	60	72	48	2.54	9	9.99 1882	0.14 1900	3.75 3/27	12.0	
November ..	0.537	59	72	45	3.72	10	12.41 1917	Nil 1842	4.46 16/86	8.3	
December ..	0.596	61	69	51	4.89	12	13.99 1910	0.35 1865	6.60 28/71	7.8	
Year { Totals ..	—	—	—	—	45.28	128	—	—	—	141.6	
Year { Averages ..	0.492	68	—	—	—	—	—	—	—	—	
Year { Extremes ..	—	—	85	45	—	—	40.39 2/93	Nil (b)	18.3121/1/87	—	

(a) 1862, 1869, 1880. (b) March, May, June, July, August, and November, various years. (c) 15/76 and 16/89.

CLIMATOLOGICAL DATA—SYDNEY, NEW SOUTH WALES.

LAT. 33° 52' S., LONG. 151° 12' E. HEIGHT ABOVE M.S.L. 138 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. M.S.L. and Standard Gravity from hourly readings.	Wind.*					Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 and p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of yrs. over which observation extends	74	66	66	66	66	66	53	73	71	22
January ..	29.896	627 3/93	0.27	7,041	N E	E N E	5.380	4.9	5.8	5.1
February ..	29.943	697 12/69	0.24	6,061	N E	E N E	4.239	4.4	5.9	5.5
March ..	30.013	754 20/70	0.19	5,872	W	E N E	3.628	4.1	5.5	5.8
April ..	30.070	642 6/82	0.17	5,339	W	E N E	2.602	3.6	5.0	7.4
May ..	30.082	682 6/98	0.17	5,504	W	N E	1.822	3.0	4.9	7.6
June ..	30.062	642 13/08	0.20	5,929	W	W	1.436	2.1	4.8	9.0
July ..	30.070	744 17/79	0.20	6,109	W	W	1.530	2.3	4.4	10.5
August ..	30.068	649 22/72	0.19	5,916	W	N E	1.929	3.2	4.0	11.3
September ..	30.009	771 6/74	0.22	6,166	W	N E	2.706	3.9	4.3	9.8
October ..	29.967	741 4/72	0.24	6,712	W	E N E	3.893	4.8	4.9	7.7
November ..	29.940	583 12/87	0.25	6,580	E N E	E N E	4.629	5.3	5.5	6.0
December ..	29.881	750 3/84	0.26	6,964	E N E	E N E	5.406	5.6	5.6	5.3
Year { Totals ..	—	—	—	—	—	—	39.200	47.4	—	91.0
Year { Averages ..	30.000	—	0.22	6,183	W	E N E	—	—	5.0	—
Year { Extremes ..	—	771 6/9/74	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).			Extreme Temperature (Fahr.).			Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.	Extreme Range.	Highest in Sun.	Lowest on Grass.		
									No. of yrs. over which observation extends.	
January ..	78.4	64.9	71.6	108.5 13/96	51.2 14/65	57.3	164.3 26/15	43.7 6/25	232.3	
February ..	77.7	65.0	71.3	107.8 8/26	49.3 28/63	58.5	161.2 8/26	43.4 25/91	203.8	
March ..	75.7	62.9	69.3	102.6 3/69	48.8 14/86	53.8	158.3 10/26	39.9 17/13	196.9	
April ..	71.3	58.1	64.7	91.0 20/22	44.6 27/64	46.4	144.1 10/77	33.3 24/09	179.5	
May ..	65.5	52.2	58.8	86.0 1/19	40.2 22/59	45.8	129.7 1/96	29.3 25/17	169.1	
June ..	61.1	48.3	54.7	80.4 11/31	35.7 22/32	44.7	125.5 2/23	28.0 22/32	156.9	
July ..	59.8	45.9	52.8	78.3 22/26	35.9 12/90	42.4	124.7 19/77	24.0 4/93	191.1	
August ..	62.8	47.5	55.2	82.0 31/84	36.8 3/72	45.2	149.0 30/78	26.1 4/09	221.2	
September ..	67.0	51.4	59.2	92.3 27/19	40.8 18/64	51.5	142.2 12/78	30.1 17/05	218.7	
October ..	71.3	55.8	63.6	98.9 19/98	42.2 6/27	56.7	151.9 30, 31/14	32.7 9/05	237.5	
November ..	74.4	59.6	67.0	102.7 21/78	45.8 1/05	56.9	158.5 28/99	36.0 6/06	237.4	
December ..	77.1	62.9	70.0	107.5 31/04	48.4 3/24	59.1	164.5 27/89	41.4 3/24	228.2	
Year { Averages ..	70.2	56.2	63.2	—	—	—	—	—	—	
Year { Extremes ..	—	—	—	108.5 13/1/96	35.7 22/6/32	72.8	164.5 27/12/89	24.0 4/7/93	42,472.6	

(a) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%)				Rainfall (inches).					Dew. Mean No. Days Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest In One Day.		
										No. of yrs. over which observation extends.	
January ..	0.546	67	78	58	3.56	14	15.26 1911	0.25 1932	7.08 13/11	1.3	
February ..	0.504	70	81	59	4.26	14	18.56 1873	0.34 1902	8.90 25/73	2.4	
March ..	0.529	72	85	62	4.97	15	18.70 1870	0.42 1876	6.52 9/13	4.3	
April ..	0.447	76	87	63	5.50	13	24.49 1861	0.06 1868	7.52 29/60	6.8	
May ..	0.360	79	90	63	5.15	15	23.03 1919	0.18 1860	8.36 28/89	7.5	
June ..	0.302	78	89	68	4.77	12	16.30 1885	0.19 1864	5.17 16/84	6.5	
July ..	0.274	76	88	66	4.37	11	13.21 1900	0.12 1862	7.80 7/31	7.1	
August ..	0.290	71	84	56	2.89	11	14.89 1809	0.02 1885	5.69 10/79	6.4	
September ..	0.333	66	79	49	2.86	12	14.95 1879	0.08 1882	6.37 13/02	4.5	
October ..	0.444	63	77	46	2.85	12	11.14 1916	0.21 1867	6.37 13/02	3.1	
November ..	0.444	63	79	42	2.81	12	9.88 1865	0.07 1915	4.23 19/00	2.2	
December ..	0.504	64	77	52	2.88	13	15.82 1920	0.23 1913	4.75 13/10	1.6	
Year { Totals ..	—	—	—	—	43.37	155	—	—	—	53.7	
Year { Averages ..	0.403	70	—	—	—	—	—	—	—	—	
Year { Extremes ..	—	—	90	42	—	—	24.49 4/1861	0.04 8/1885	8.90 25/2/73	—	

\* Early records revised during 1929. Values for period 1867—September, 1885, reduced 20 per cent.; for period September, 1885—March, 1913, reduced 10 per cent. † From 1921 only; previous records discarded owing to faulty exposure of instruments.



## CLIMATOLOGICAL DATA—MELBOURNE, VICTORIA.

LAT. 37° 49' S., LONG. 144° 58' E. HEIGHT ABOVE M.S.L., 115 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Min. Sea Level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pres- sure. (lb.)	Total Miles.	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of yrs. over which observation extends	75	59	59	59	59	59	60	25	75	25
January ..	29.910	583 10/97	0.27	7,012	S W	S E	6.468	1.9	5.0	7.2
February ..	29.960	566 8/68	0.24	6,059	S W	S E	5.067	2.4	4.9	6.8
March ..	30.034	677 9/81	0.20	6,038	S W	S E	3.988	1.8	5.5	5.2
April ..	30.101	597 7/68	0.17	5,455	S W	N W	2.407	1.1	5.8	4.7
May ..	30.106	693 12/65	0.17	5,615	N W	N E	1.484	0.6	6.5	3.0
June ..	30.079	761 13/76	0.21	6,007	N W	N E	1.118	0.5	6.6	2.3
July ..	30.087	755 8/74	0.20	6,095	N W	N E	1.082	0.4	6.4	2.8
August ..	30.063	637 14/75	0.23	6,514	N W	N E	1.490	1.1	6.3	2.9
September ..	29.997	617 11/72	0.25	6,653	N W	S W	2.329	1.3	6.1	3.2
October ..	29.965	899 5/66	0.26	6,968	S W	N E	3.373	1.9	6.0	3.7
November ..	29.951	734 13/66	0.26	6,714	S W	S E	4.539	2.5	5.9	3.8
December ..	29.898	655 1/75	0.28	7,139	S W	S E	5.786	2.1	5.5	4.6
Year { Totals ..	—	—	—	—	—	—	39.151	17.6	—	50.2
{ Averages ..	30.013	—	0.23	6,356	S W	N W	—	—	—	—
{ Extremes ..	—	899 5/10/66	—	—	—	—	—	—	—	—

## TEMPERATURE AND SUNSHINE.

Month.	Mean Tempera- ture (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends	77	77	77	77	77	77	72	73	51
January ..	78.1	56.7	67.4	111.2 14/62	42.0 28/85	60.2	178.5 14/62	30.2 28/85	261.4
February ..	78.1	57.2	67.6	109.5 7/01	40.2 24/24	60.3	167.5 15/70	30.9 6/91	238.7
March ..	74.4	54.7	64.5	105.5 2/93	37.1 17/84	68.4	164.5 1/68	28.9 (b)	204.6
April ..	68.2	50.7	59.4	94.0 (a)	34.8 24/88	59.2	152.0 8/61	25.0 23/97	162.5
May ..	61.5	46.8	54.1	83.7 7/05	29.9 29/16	53.8	142.6 2/59	21.1 26/16	137.3
June ..	56.8	44.0	50.4	72.2 1/07	28.0 11/66	44.2	129.0 11/61	19.9 30/29	110.7
July ..	55.6	41.9	48.7	69.3 22/26	27.0 21/69	42.3	125.8 27/80	20.5 12/03	130.9
August ..	58.6	43.4	51.0	77.0 20/85	28.3 11/63	48.7	137.4 29/69	21.3 14/02	153.7
September ..	62.7	45.6	54.2	88.6 28/28	31.1 16/08	57.5	142.1 20/67	22.8 8/18	172.1
October ..	67.1	48.3	57.7	98.4 24/14	32.1 3/71	66.3	154.3 28/68	24.8 28/18	202.3
November ..	71.4	51.3	61.3	105.7 27/94	36.5 2/96	69.2	159.6 29/95	24.6 2/96	234.9
December ..	75.3	54.3	64.8	110.7 15/76	40.0 4/70	70.7	170.3 20/69	33.2 1/04	249.6
Year { Averages ..	67.3	49.6	58.4	—	—	—	—	—	—
{ Extremes ..	—	—	—	111.2 14/1/62	27.0 21/7/69	84.2	178.5 14/1/62	19.9 30/6/29	62,258.9

(a) 6/1865 and 17/1922.

(b) 17/1884 and 20/1897.

(c) Total for year.

## HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pres- sure (inches).	Rel. Hum. (%)					Rainfall (inches).				Dew. Mean No. Days Dew.
		Mean 9 a.m.	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest In One Day.	
No. of yrs. over which observation extends	25	25	25	25	77	77	77	77	74	25	
January ..	0.384	58	65	50	1.86	8	5.68 1904	0.01 1932	2.97 9/97	2.5	
February ..	0.416	62	69	48	1.77	7	6.24 1904	0.03 1870	3.37 18/19	3.6	
March ..	0.382	64	73	57	2.28	10	7.50 1911	0.18 1859	3.55 5/19	7.8	
April ..	0.313	70	82	66	2.22	11	6.71 1901	Nil 1923	2.28 2/01	9.4	
May ..	0.277	83	86	71	2.16	13	4.31 1862	0.45 1901	1.85 7/01	9.8	
June ..	0.263	82	86	76	1.84	14	4.51 1859	0.73 1877	1.74 21/04	8.7	
July ..	0.273	89	86	76	1.84	14	7.02 1891	0.57 1902	2.71 12/91	8.9	
August ..	0.268	76	82	70	1.89	15	4.04 1924	0.48 1903	1.94 26/24	8.9	
September ..	0.290	69	76	60	2.36	14	7.93 1916	0.52 1907	2.62 12/80	6.6	
October ..	0.306	62	67	53	2.63	13	7.61 1869	0.29 1914	3.00 17/69	3.4	
November ..	0.333	60	69	52	2.23	11	6.71 1916	0.25 1895	2.57 16/76	1.9	
December ..	0.367	58	69	51	2.30	9	7.18 1863	0.11 1904	2.62 28/07	1.7	
Year { Totals ..	—	—	—	—	25.61	139	—	—	—	74.4	
{ Averages ..	0.324	69	—	—	—	—	—	—	—	—	
{ Extremes ..	—	—	89	48	—	—	7.93 9/1916	Nil 4/1923	3.55 5/3/19	—	

CLIMATOLOGICAL DATA—HOBART, TASMANIA.

LAT. 42° 53' S., LONG. 147° 20' E. HEIGHT ABOVE M.S.L., 177 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS, AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea-level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (inches).	No of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of yrs. over which observation extends	48	22	22	22	26	26	22	25	70	26
January .. ..	29.825	500 30/16	0.20	6,033	N N W & N	S E	4.903	0.8	6.0	2.5
February .. ..	29.918	605 4/27	0.15	4,777	N & N N W	S E	3.751	1.2	6.0	2.5
March .. ..	29.946	443 19/27	0.13	4,899	N N W & N	S E	3.007	1.4	5.9	2.4
April .. ..	29.968	533 27/26	0.13	4,816	N & N N W	N W & S E	1.983	0.7	6.1	1.6
May .. ..	29.992	423 15/27	0.12	4,755	N W & N N W	N & N W	1.401	0.5	6.1	2.2
June .. ..	29.956	509 27/20	0.12	4,573	N W & N N W	N & N W	0.916	0.5	6.1	2.2
July .. ..	29.927	489 22/29	0.13	4,888	N N W & N W	N & N W	0.945	0.5	5.8	2.2
August .. ..	29.921	612 19/26	0.14	5,039	N & N N W	N & N W	1.290	0.5	6.0	2.1
September ..	29.848	516 26/15	0.19	5,667	N & N N W	N W & S E	1.974	0.8	6.1	1.5
October .. ..	29.826	461 8/12	0.20	6,074	N & N N W	S E & N W	3.059	0.6	6.4	1.2
November ..	29.807	508 18/15	0.19	5,809	N & N N W	S E	3.870	0.8	6.4	1.5
December ..	29.809	486 30/20	0.18	5,706	N & N N W	S E	4.466	0.9	6.3	1.3
Year { Totals .. ..	—	—	—	—	—	—	31.565	9.2	—	23.2
Year { Averages .. ..	29.895	—	0.16	5,253	N & N W	S E & N W	—	—	6.1	—
Year { Extremes .. ..	—	612 19/8/26	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extremes Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
January .. ..	71.1	52.8	62.0	105.0 (a)	40.0 3/72	65.0	160.0 (b)	30.6 19/97	243.9
February .. ..	71.3	53.4	62.4	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 -/87	199.0
March .. ..	67.9	50.8	59.4	99.0 -/61	35.2 31/26	63.8	150.0 3/05	27.5 30/02	202.4
April .. ..	62.6	47.8	55.2	90.0 1/56	30.0 25/56	60.0	142.0 18/93	25.0 -/86	146.0
May .. ..	57.4	43.8	50.6	77.8 5/21	29.2 20/02	48.6	128.0 (c)	20.0 19/02	143.1
June .. ..	52.8	41.1	46.9	75.0 7/74	28.0 22/79	47.0	122.0 12/94	21.0 6/87	119.8
July .. ..	52.0	39.5	45.8	72.0 22/77	27.0 18/66	45.0	121.0 12/93	18.7 16/86	126.9
August .. ..	55.0	41.1	48.0	77.0 3/76	30.0 10/73	47.0	129.0 0/87	20.1 7/09	161.6
September ..	58.7	43.2	51.0	81.7 23/26	30.0 12/41	51.7	138.0 23/93	18.3 16/26	169.7
October .. ..	62.6	45.5	54.0	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (d)	188.4
November ..	66.0	48.2	57.1	98.0 23/88	35.2 5/13	62.8	154.0 19/92	26.0 1/08	224.9
December ..	69.2	51.2	60.2	105.2 30/97	38.0 13/06	67.2	157.0 30/18	27.2 -/86	229.9
Year { Averages .. ..	62.2	46.5	54.4	—	—	—	—	—	2,155.6
Year { Extremes .. ..	—	—	—	105.2 30/12/97	27.0 18/7/66	78.2	165.0 24/2/98	18.3 16/9/26	(e)

(a) 27/49 and 1/00. (b) 5/86 and 13/05. (c) -/89 and -/93. (d) 1/86 and -/99. (e) Total for year.

CLIMATOLOGICAL DATA—HOBART, TASMANIA—*continued*.

## HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches). Mean 9 a.m.	Rel. Hum. (%)			Rainfall (inches).					Dew. Mean No. of Days Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observation extends	46	46	46	46	90	89	90	90	66	23
January ..	0.332	58	72	46	1.85	10	5.91 1893	0.03 1841	2.96 30/16	0.6
February ..	0.356	63	77	52	1.48	9	9.15 1854	0.07 1847	4.50 27/544	1.4
March ..	0.332	67	77	58	1.75	10	7.60 1854	0.02 1843	3.27 11/32	5.4
April ..	0.301	73	84	58	1.92	12	6.50 1909	0.07 1904	5.02 20/09	9.7
May ..	0.269	78	89	65	1.87	13	6.37 1905	0.10 1843	3.22 14/58	12.8
June ..	0.241	80	91	68	2.23	14	8.15 1889	0.22 1852	4.11 13/89	8.5
July ..	0.229	81	94	72	2.18	14	6.02 1922	0.30 1850	2.51 18/22	8.7
August ..	0.238	75	92	64	1.84	14	10.16 1858	0.23 1854	4.35 12/58	8.7
September ..	0.256	68	85	59	2.09	15	7.14 1844	0.39 1847	2.75 18/44	5.0
October ..	0.273	64	73	51	2.31	15	6.67 1906	0.26 1850	2.58 4/06	2.7
November ..	0.292	59	72	50	2.46	14	8.94 1849	0.16 1868	3.97 7/49	1.2
December ..	0.317	57	67	45	2.01	11	9.00 1875	0.11 1842	2.82 21/29	0.9
Year { Totals ..	—	—	—	—	23.99	151	—	—	—	65.6
{ Averages ..	0.281	67	—	—	—	—	—	—	—	—
{ Extremes ..	—	94	45	—	—	—	10.16 8/1858	0.02 3/1843	5.02 20/4/09	—

\* Early records discarded owing to faulty instrument. (a) 4.18 on 28/54 also.

## CHAPTER III.

## GENERAL GOVERNMENT.

## § 1. Scheme of Parliamentary Government.

1. **General.**—A brief account of the general legislative powers of the Commonwealth and States is given in preceding issues of the *Official Year Book* (see No. 13, pp. 927 to 951, and No. 22, page 64).

2. **Powers and Functions of the Governor-General and of the State Governors.**—A detailed statement of the powers and functions of the Governor-General and of the State Governors will be found in preceding issues of the *Official Year Book* (see No. 18, pp. 78 to 80).

3. **Governor-General and State Governors.**—The present Governor-General is the Right Honorable SIR ISAAC ALFRED ISAACS, P.C., G.C.M.G. He assumed office on the 22nd January, 1931.

The following is a list of the Governors of the various States of the Commonwealth:—

New South Wales ..	Air Vice-Marshal SIR PHILIP WOOLCOTT GAME, G.B.E., K.C.B., D.S.O.
Victoria .. ..	Lieut.-Governor—SIR WILLIAM HILL IRVINE, K.C.M.G.
Queensland ..	Lieut.-Colonel the RT. HON. SIR LESLIE ORME WILSON, P.C., G.C.S.I., G.C.I.E., C.M.G., D.S.O.
South Australia ..	Brigadier-General SIR ALEXANDER GORE ARKWRIGHT HORE-RUTHVEN, V.C., K.C.M.G., C.B., D.S.O.
Western Australia ..	Lieut.-Governor—The HON. SIR JAMES MITCHELL, K.C.M.G.
Tasmania ..	SIR ERNEST CLARK, K.C.B., C.B.E.

4. **The Cabinet and Executive Government.**—(i) *General.* In both the Commonwealth and the State Legislatures the forms of government have been founded on their prototypes in the Imperial Government, and the relations established between the Ministry and the representatives of the people are in accordance with those prevailing in Great Britain. The executive powers in the Commonwealth are vested in the Governor-General in Council, and in the State Governments in the Governor in Council. The Executive Council in the Commonwealth and the majority of the States is practically co-extensive with a group of departmental chiefs, who are usually spoken of as the Cabinet, and who change with the rise and fall of party majorities. In the Commonwealth Government, however, as well as in the States of Victoria and Tasmania, the Cabinet on leaving office remain members of the Executive Council, though they no longer attend its meetings, and it is in fact an essential feature of the Cabinet system of Government that they should not do so, except to assist the Governor in transacting purely formal business, or to advise on non-political questions.

(ii) *The Executive Council.* This body is composed of the Governor and the Ministers of State holding office for the time being. The latter are sworn both as Executive Councillors and as Ministers controlling the different administrative departments. It should be observed that all persons living who have held Ministerial office under former Governments are also technically members of the Executive Council, and are thus liable to be specially summoned for attendance at meetings of that body. The meetings are official in character; they are presided over by the Governor-General (or Governor) and are attended by the clerk, who keeps a formal record of the proceedings. At these meetings the decisions of the Cabinet are put into official form and made effective, appointments are confirmed, resignations accepted, proceedings ordered, and notices and regulations published.

(iii) *The Appointment of Ministers and of Executive Councillors.* Although it is technically possible for the Governor to make and unmake cabinets at his pleasure, under all ordinary circumstances his apparent liberty in choosing his Executive Council is virtually restricted by the operation of constitutional machinery. When a Ministry is defeated in Parliament or at the polls, the procedure both in the Commonwealth and the State Parliaments generally, though not invariably, follows that prevailing in the Imperial Parliament. The customary procedure in connexion with the resignation or acceptance of office by a Ministry is described fully in previous issues of the Year Book. (See No. 6, page 942.)

(iv) *Ministers in Upper or Lower Houses.* The subjoined table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in June, 1933.

**AUSTRALIAN PARLIAMENTS—MINISTERS IN UPPER OR LOWER HOUSES,  
1933.**

Ministers with Seats in—	C'wealth.	N.S.W.	Vict.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
The Upper House ..	3	3	4	(a)	2	2	1	15
The Lower House ..	10	11	8	10	4	7	5	55
<b>Total ..</b>	<b>13</b>	<b>14</b>	<b>12</b>	<b>10</b>	<b>6</b>	<b>9</b>	<b>6</b>	<b>70</b>

(a) Council abolished in 1922.

(v) *The Cabinet.* (a) *General.* The meetings of this body are private and deliberative. The actual Ministers of the day are alone present, no records of the meetings transpire, and no official notice is taken of the proceedings. The members of the Cabinet, being the leaders of the party in power in Parliament, control the bent of legislation, and must retain the confidence of the people and also of the Governor-General (or Governor), to whom they act as an advising body. They also in effect wield, by virtue of their seats on the Executive Council, the whole executive force of the community. In summoning, proroguing, or dissolving Parliament, the Governor-General (or Governor) is usually guided by the advice tendered him by the Cabinet, though legally in no way bound to accept such advice.

(b) *Commonwealth Ministers of State.* A statement showing the names of Ministers of State who have held office from the inauguration of the Commonwealth Government to 1925 will be found in Official Year Book No. 18, pages 82 and 83.

(c) *State Ministries.* A list of the members of the Ministry in each State in June, 1933, will be found in § 3 of this chapter.

5. **Number and Salary of Members of the Legislatures.**—The following table shows the number and annual salary of members in each of the legislative chambers in June, 1933 :—

**MEMBERS OF COMMONWEALTH AND STATE PARLIAMENTS, AND ANNUAL SALARIES, 1933.**

Members in—	C'wealth.	N.S.W.	Vict.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
<b>MEMBERS.</b>								
Upper House ..	36	122	34	(a)	20	30	18	260
Lower House ..	76	90	65	62	46	50	30	419
Total ..	112	212	99	62	66	80	48	679
<b>ANNUAL SALARY.</b>								
Upper House ..	£ 750	£ ..	£ 177	£ (a)	£ 360	£ 480	£ (b)278-375	..
Lower House ..	750	670	402	500	360	480	(b)300-375	..

(a) Council abolished in 1922.

(b) According to area of electorate and distance from the Capital.

The use of the expressions "Upper House" and "Lower House" in the above statement, though not justified constitutionally, is convenient, inasmuch as the legislative chambers are known by different names in the Commonwealth and in some of the States.

6. **Enactments of the Parliament.**—In the Commonwealth, all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution Act. In the States, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly or House of Assembly. The Governor-General or the State Governor acts as Viceroy as regards giving the Royal assent to or vetoing Bills passed by the Legislatures, or reserving them for the special consideration of the Sovereign. In the States, the Councils and Assemblies are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations, they may alter, repeal, or vary their Constitution. Where a law of a State is inconsistent with a law of the Commonwealth the latter prevails, and the former is, to the extent of the inconsistency, invalid.

## § 2. Parliaments and Elections.

1. **Qualifications for Membership and for Franchise.**—The conspectus in § 4 of "General Government" in Year Book No. 13 contains particulars, as in 1920, relating to the legislative chambers in the Commonwealth and State Parliaments, and shows concisely the qualifications necessary for membership and for the franchise in each House. (These are, in the main, applicable in 1933, but it must be remembered that Queensland abolished the Upper House in 1922.) It has further to be remembered that in 1925 the Commonwealth Parliament passed an Act removing the disqualification on racial grounds from (a) natives of British India and (b) persons who have become naturalized. Disqualification of persons otherwise eligible, either as members or voters, is generally on the usual grounds of being of unsound mind or attainted of treason, being convicted of certain offences, and, as regards membership, on the grounds of holding a place of profit under the Crown, being pecuniarily interested in a Government contract except as a member of an incorporated company of more than twenty-five persons, or being an undischarged bankrupt.

2. **The Federal Government.**—The Senate consists of 36 members, six being returned by each of the original federating States. Members of this Chamber are elected for a term of six years, but by a provision in the Constitution half the members retire at the end of every third year, although they are eligible for re-election. In accordance with the Constitution, the total number of members of the House of Representatives must be as nearly as possible double that of the Senate. In the House of Representatives the States are represented on a population basis, and the numbers stand at present as follows :—New South Wales, 28 ; Victoria, 20 ; Queensland, 10 ; South Australia, 7 ; Western Australia, 5 ; Tasmania, 5 ; Northern Territory, 1—total, 76. The member representing the Northern Territory may join in the debates but is not entitled to vote. The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. In elections for Senators, the whole State constitutes the electorate. For the purposes of elections for the House of Representatives, the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. Members of both Houses are paid at the rate of £750 per annum. Further information regarding the Senate and the House of Representatives is given in earlier issues.

3. **Federal Elections.**—There have been twelve complete Parliaments since the inauguration of Federation. The fifth Parliament, which was opened on the 9th July, 1913, was dissolved on the 30th July, 1914, in somewhat unusual circumstances. Under Section 57 of the Constitution, it is provided that, should the Senate fail to pass, or pass with amendments, any proposed law previously passed by the House of Representatives, and should the latter House, after an interval of three months, again pass the proposed law, with or without the amendments of the Senate, and the Senate for a second time reject it or pass it with amendments to which the lower House will not agree, then the Governor-General may dissolve the two Houses simultaneously. For the first time in the history of the Commonwealth this deadlock between the Senate and the House of Representatives occurred in the second session of the fifth Parliament, and, in accordance with the section of the Constitution referred to above, both Houses were dissolved by the Governor-General. Until 1927 the Parliament met at Melbourne ; it now meets at Canberra, the first meeting at Parliament House, Canberra, being opened by H.R.H. the Duke of York, on the 9th May, 1927. The first session of the thirteenth Parliament opened on the 17th February, 1932. Particulars regarding Commonwealth elections since 1917 may be found in the table given hereunder :—

FEDERAL ELECTIONS.

Date.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Fem.	Total.	Males.	Fem.	Total.	Males.	Fem.	Total.
<b>THE SENATE.</b>									
5th May, 1917 ..	1,444,133	1,391,194	2,835,327	1,184,663	1,018,138	2,202,801	82.03	73.18	77.69
13th December, 1919	1,439,818	1,410,044	2,849,862	1,094,534	938,403	2,032,937	76.02	65.55	71.33
16th December, 1922	1,494,508	1,487,916	2,982,424	966,551	761,695	1,728,246	64.67	51.19	57.95
14th November, 1925	1,656,286	1,645,730	3,302,016	1,515,608	1,499,345	3,014,953	91.51	91.11	91.31
17th November, 1928	1,723,552	1,721,214	3,444,766	1,617,752	1,606,748	3,224,500	93.86	93.35	93.61
12th October, 1929	1,773,014	1,769,936	3,542,950	..	..	..	..	..	..
19th December, 1931	1,827,079	1,822,875	3,649,954	1,741,163	1,727,140	3,468,303	95.30	94.75	95.02

\* No election.

THE HOUSE OF REPRESENTATIVES.

(CONTESTED ELECTORATES.)

5th May, 1917 ..	1,262,527	1,207,938	2,470,465	1,041,552	892,926	1,934,478	82.50	73.92	78.30
13th December, 1919	1,395,165	1,367,461	2,762,633	1,063,029	914,816	1,977,845	76.19	66.90	71.59
16th December, 1922	1,396,020	1,378,251	2,774,274	920,177	726,686	1,646,863	65.91	52.72	59.36
14th November, 1925	1,635,842	1,632,897	3,268,739	1,499,006	1,488,194	2,987,200	91.63	91.14	91.39
17th November, 1928	1,450,202	1,463,951	2,914,153	1,362,675	1,366,137	2,728,812	93.96	93.32	93.64
12th October, 1929	1,557,525	1,560,505	3,118,030	1,479,100	1,478,447	2,957,547	94.96	94.74	94.85
19th December, 1931	1,724,730	1,733,343	3,458,073	1,643,604	1,642,870	3,286,474	95.30	94.78	95.04

The percentage of electors who exercised the franchise at each election rose from 53.04 for the Senate and 55.69 for the House of Representatives in 1901 to 77.69 and 78.30 respectively in 1917. The next election in 1919 showed a considerable falling off, and in 1922 the decrease was still more marked, the respective percentages for that year being 57.95 and 59.36, or very little more than those for 1901. Compulsory voting was introduced prior to the election in 1925, and an exceedingly heavy vote (over 91 per cent.) was cast in that year. At each succeeding election, moreover, the percentage has increased, and at the last election in 1931 reached 95 per cent.

4. **Federal Referenda.**—According to Section 128 of the Constitution, any proposed law for the alteration of the Constitution must, in addition to being passed by an absolute majority of each House of Parliament, be submitted to a referendum of the electors in each State, and must further be approved by a majority of the States and of the electors who voted before it can be presented for Royal Assent. Several referenda have been held from time to time, but in three cases only has any proposed law been assented to by the required majority of the electors. A statement dealing with the various referenda up to and inclusive of the year 1919, and the voting thereon was given in previous issues of the Official Year Book (see No. 18, pp. 87 to 89), but space will not permit of the incorporation of this information in the present volume. In the year 1926 a referendum was held in relation to proposed laws entitled respectively "Industry and Commerce" and "Essential Services." The result of the voting was; Industry and Commerce, votes in favour, 1,247,088; votes not in favour, 1,619,655. Essential Services, votes in favour, 1,195,502; votes not in favour, 1,597,793.

A referendum was taken in 1928 in respect of a proposed law entitled "State Debts 1928" and a majority of votes was cast in each State in favour of the proposal, the voting for the Commonwealth being as follows: in favour, 2,237,391; not in favour, 773,852.

5. **The Parliament of New South Wales.**—(i) *Constitution.* The Legislative Council in this State is a nominee chamber, the Legislative Assembly being an elective body. Theoretically the Legislative Council may contain an unlimited number of members, and the number of members in December, 1932, was one hundred and eight. The tenure of the seat is for life; four-fifths of the members must be persons not holding any paid office under the Crown, but this is held not to include officers of His Majesty's sea or land forces on full or half-pay, or retired officers on pensions. A Bill for the abolition of the Legislative Council was passed in December, 1930. The High Court of Australia, however, in a judgment delivered in March, 1931, held that this legislation was in conflict with the Constitution. The matter was made the subject of an appeal to the Privy Council which, by its judgment delivered at the close of May, 1932, confirmed the decision of the High Court. An Act, for the reformation of the Legislative Council, by altering its powers and reducing and limiting the number of members, was passed on 16th December, 1932. The Act provided for a referendum on the question which was held on 13th May, 1933; the result of the voting was, votes in favour, 716,938; votes not in favour, 676,034. The Legislative Assembly consists of ninety members elected in single-seat electoral districts, who hold their seats during the existence of the Parliament to which they are elected. The duration of Parliament is limited to three years.

(ii) *Particulars of Elections.* Since the introduction of responsible government in New South Wales there have been twenty-nine complete Parliaments, the first of which opened on the 22nd May, 1856, and was dissolved on the 19th December, 1857, while the twenty-ninth was dissolved on the 18th May, 1932. The thirtieth Parliament opened on the 23rd June, 1932. The elections of 1920, 1922, and 1925 were contested on the principle of proportional representation, but a reversion to the system of single seats and preferential voting was made at the later appeals to the people. Particulars of voting at elections from 1920 to 1932 are given on the next page.



LEGISLATIVE ASSEMBLY ELECTIONS, NEW SOUTH WALES.

Year.	Electors Qualified to Vote.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1920	593,244	561,193	1,154,437	363,115	285,594	648,709	61.21	50.89	56.19
1922	636,662	614,361	1,251,023	466,949	408,515	875,464	73.34	66.49	69.98
1925	678,749	660,331	1,339,080	489,126	435,853	924,979	72.06	66.00	69.07
1927	714,886	694,607	1,409,493	591,820	558,957	1,150,777	83.79	81.25	82.54
1930	724,471	716,314	1,440,785	682,747	673,676	1,356,423	95.09	94.79	94.94
1932	739,009	725,999	1,465,008	690,094	676,993	1,367,087	96.42	96.37	96.39

The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1922. Compulsory voting was introduced in the 1930 election, and, as the above table shows, the percentage of electors who voted in contested electorates rose to over 96.

The franchise was extended to women (Women's Franchise Act) in 1902, and was exercised for the first time at a State election in 1904.

6. The Parliament of Victoria.—(i) *Constitution.* Both of the Victorian legislative chambers are elective bodies, but there is a considerable difference in the number of members of each House, as well as in the qualifications necessary for members and electors. The number of members in the Upper House is 34, and in the Lower House, 65. In the Legislative Council the tenure of the seat is for six years, but one member for each of the seventeen provinces retires every third year, except in the case of a dissolution, when one-half of the newly-elected members hold their seats for three years only. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited to three years. An elector for the Legislative Assembly may vote once only, plurality of voting having been abolished in 1899; an elector, however, qualified in more than one district, may select that for which he desires to record his vote. A preferential system of voting (see Year Book No. 6, page 1182) was for the first time adopted in Victoria at the election held in November, 1911.

(ii) *Particulars of Elections.* Since the introduction of responsible government in Victoria there have been thirty complete Parliaments, the first of which opened on the 21st November, 1856, and closed on the 9th August, 1859, while the thirtieth was dissolved on the 22nd April, 1932. The thirty-first Parliament was opened on the 14th June, 1932. The election for the Legislative Assembly in 1927 was the first held since the institution of compulsory voting. At the Legislative Council elections held on the 6th June, 1931, only nine of the seventeen seats were contested. Particulars of voting at elections during the years 1919 to 1932 are given in the subjoined table.

VICTORIAN ELECTIONS.

LEGISLATIVE COUNCIL.

Year.	Electors Enrolled.	Electors Enrolled in Contested Electorates.	Electors who Voted.	Percentage of Electors who Voted in Contested Electorates.
1919	..	317,593	133,058	40.35
1922	..	353,440	161,731	29.07
1925	..	399,510	172,875	32.41
1928	..	444,278	268,164	31.84
1931	..	470,349	239,975	38.86

VICTORIAN ELECTIONS—*continued.*

## LEGISLATIVE ASSEMBLY.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1920	418,085	450,763	868,848	232,604	235,621	468,225	66.23	61.38	63.70
1921	414,818	456,638	871,456	167,812	158,415	326,227	61.29	53.53	57.26
1924	433,357	467,070	900,427	190,153	180,810	370,963	63.02	55.72	59.24
1927	480,485	512,726	993,211	377,941	402,458	780,399	92.02	91.51	91.76
1929	496,996	532,174	1,029,170	308,532	330,836	639,368	94.11	93.36	93.72
1932	510,809	544,492	1,055,301	335,362	351,349	686,711	94.56	93.77	94.16

The franchise was extended to women by the Adult Suffrage Act 1908, and voting at elections for the Legislative Assembly was made compulsory in 1926.

7. **The Parliament of Queensland.**—(i) *Constitution.* As pointed out previously the Legislative Council in Queensland was abolished in 1922, the date of Royal Assent to the Act being the 23rd March. The Legislative Assembly is composed of sixty-two members, and the State is divided into that number of electoral districts. The "Electoral Districts Act of 1931", assented to on the 1st October, 1931, provided, that from and after the end of the twenty-fifth Parliament (dissolved on the 19th April, 1932) the number of members and electoral districts should be reduced from seventy-two to sixty-two. A modified system of optional preferential voting is in operation. (See Year Book No. 6, page 1183.)

(ii) *Particulars of Elections.* Since the establishment of responsible government in Queensland there have been twenty-five complete Parliaments, the first of which opened on the 29th May, 1860, and was dissolved on the 20th May, 1863, while the twenty-fifth Parliament was dissolved on the 19th April, 1932. At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. Of the total number of electors enrolled at the 1932 elections, 92.86 per cent. went to the polls. Statistics regarding elections during the years 1918 to 1932 are given below.

## QUEENSLAND LEGISLATIVE ASSEMBLY ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1918	233,342	191,074	424,416	176,768	163,901	340,669	75.75	85.78	80.27
1920	238,750	206,931	445,681	187,575	168,651	356,226	78.57	81.50	79.93
1923	257,001	219,476	476,477	194,287	174,980	369,267	80.72	83.96	82.23
1926	253,571	224,526	478,097	209,139	191,916	401,055	89.77	90.13	89.94
1929	270,327	239,672	509,999	228,001	209,647	438,248	89.69	91.45	90.52
1932	274,986	250,958	525,944	236,266	220,628	456,894	92.59	93.14	92.86

The election of 1907 was the first State election in Queensland at which women voted the privilege being conferred under the Elections Acts Amendment Act 1905.

8. **The Parliament of South Australia.**—(i) *Constitution.* In this State there is a Legislative Council composed of twenty members and a House of Assembly with forty-six members, both chambers being elective. The State is divided into five districts, which return four members each to the Legislative Council. For the House of Assembly, eight districts return three members each, and eleven districts two members each.

(ii) *Particulars of Elections.* Since the inauguration of responsible government in South Australia there have been twenty-seven complete Parliaments, the first of which was opened on the 22nd April, 1857. The twenty-seventh Parliament opened on the 27th May, 1930, and closed on the 28th February, 1933. Particulars of voting at recent elections are given below :—

**SOUTH AUSTRALIAN ELECTIONS.**

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
<b>LEGISLATIVE COUNCIL.</b>									
1918	71,510	23,461	94,971	42,987	11,800	54,787	60.11	50.30	57.69
1921	69,986	23,062	93,048	38,597	11,309	49,906	64.23	53.96	61.57
1924	67,429	22,018	89,447	36,626	10,492	47,118	65.79	54.94	63.02
1927	100,376	37,395	137,771	46,686	17,742	64,428	67.55	59.91	65.26
1930	(a)	(a)	133,274	(a)	(a)	100,040	(a)	(a)	75.06
1933	(a)	(a)	133,152	(a)	(a)	25,309	(a)	(a)	64.21
<b>HOUSE OF ASSEMBLY.</b>									
1918	126,669	132,043	258,712	71,501	62,742	134,243	56.45	47.52	51.89
1921	134,091	137,931	272,022	91,451	77,600	169,051	70.10	57.64	63.77
1924	141,944	147,899	289,843	87,712	73,453	161,165	69.65	56.05	62.71
1927	152,997	156,591	309,588	110,127	104,611	214,738	80.64	74.31	77.43
1930	(a)	(a)	325,244	(a)	(a)	222,819	(a)	(a)	71.36
1933	(a)	(a)	338,576	(a)	(a)	182,693	(a)	(a)	59.45

(a) Not available.

It is interesting to note that South Australia was the first of the States to grant women's suffrage (under the Constitution Amendment Act 1894), the franchise being exercised for the first time at the Legislative Assembly election on the 25th April, 1896.

9. **The Parliament of Western Australia.**—(i) *Constitution.* In this State both Chambers are elective. For the Legislative Council there are thirty members, each of the ten Provinces returning three members, while the Legislative Assembly is composed of fifty members, one member being returned by each of the fifty electoral districts. At the expiration of two years from the date of election to a seat in the Legislative Council, and every two years thereafter, the junior member for the time being for each province retires. Seniority is determined (a) by the date of election, (b) if two or more members are elected on the same day, then the junior is the one who polled the least number of votes (c) if the election be uncontested, or in case of an equality of votes, then the seniority is determined by the alphabetical precedence of surnames and, if necessary, Christian names. Members of the Legislative Assembly are elected for three years.

(ii) *Particulars of Elections.* Since the establishment of responsible government in Western Australia there have been fourteen complete Parliaments, the first of which was opened on the 30th December, 1890, while the fourteenth Parliament was elected on 7th May, 1932, and 8th April, 1933. The preferential system of voting in use in

Western Australia is described in Year Book No. 6, page 1184. Particulars relating to Assembly and Council elections for which information is available are given in the tables below.

## WESTERN AUSTRALIAN ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
LEGISLATIVE COUNCIL.									
1922	40,360	14,838	55,198	17,524	4,763	22,287	46.16	33.81	42.82
1924	43,897	14,904	58,801	16,552	4,569	21,121	47.06	39.25	45.12
1926	39,566	15,120	54,686	23,956	8,136	32,092	60.55	53.80	58.68
1928	54,822	19,076	73,898	24,877	8,151	33,028	51.99	46.75	50.59
1930	54,651	18,927	73,578	20,198	6,252	26,450	51.58	48.50	50.81
1932	57,454	19,889	77,343	17,145	5,508	22,653	56.29	48.29	54.16
LEGISLATIVE ASSEMBLY.									
1917	93,106	73,845	166,951	45,453	40,167	85,620	59.46	65.51	62.15
1921	89,523	75,165	164,688	54,747	44,211	98,958	69.16	65.22	67.34
1924	101,717	88,152	189,869	55,591	43,800	99,391	66.00	59.00	62.32
1927	113,072	97,877	210,949	76,307	66,199	142,506	74.32	72.42	73.42
1930	122,576	107,500	230,076	75,206	63,807	139,013	75.44	73.30	74.44
1933	124,776	112,419	237,195	96,210	89,802	186,012	90.23	91.00	90.60

Women's suffrage was granted by the Electoral Act of 1899. At the 1921 elections the first woman member elected to an Australian Parliament was returned.

(iii) *Particulars of Secession Referendum.* Under the provisions of the "Secession Referendum Act, 1932," a referendum was taken on the 8th April, 1933, when the following questions were submitted to the electors :—

- (1) "Are you in favour of the State of Western Australia withdrawing from the Federal Commonwealth established under the Commonwealth of Australia Constitution Act (Imperial)?"
- (2) "Are you in favour of a Convention of Representatives of equal number from each of the Australian States being summoned for the purpose of proposing such alterations in the Constitution of the Commonwealth as may appear to such Convention to be necessary?"

The result of the voting was : Secession, votes in favour, 138,653 ; votes not in favour, 70,706. Convention, votes in favour, 88,275 ; votes not in favour, 119,031.

10. *The Parliament of Tasmania.*—(i) *Constitution.* In Tasmania there are two legislative chambers—the Legislative Council and the House of Assembly, both bodies being elective. The Council consists of eighteen members, returned from fifteen districts, Hobart returning three, Launceston two, and the remaining thirteen districts sending one member each. There are five House of Assembly districts corresponding to the Commonwealth electoral districts, each returning six members, who are elected under a system of proportional representation which first came into force at the 1909 elections. (See Year Book No. 6, page 1185.) The annual salaries of members of the House of Assembly range from £300 to £375, and of the Legislative Council from £278 to £375 according to the area of the electorate and the distance from the capital.

In 1924 and again in 1925 the House of Assembly contested, with at least temporary success, the power of the Legislative Council to amend money bills. The matter was settled by "The Constitution Act 1926," which provides that all money bills shall originate in the Assembly, that all money votes shall be recommended by the Governor, and that

the Council may amend bills other than those for appropriating public moneys or fixing a rate for income or land tax. The Council has no power to insert a provision for the appropriation of money or the imposing of a burden on the people.

(ii) *Particulars of Elections.* The first Tasmanian Parliament opened on 2nd December, 1856, and closed on 8th May, 1861. There have been twenty-three complete Parliaments since the inauguration of responsible government. Particulars of the voting at the last five elections for the House of Assembly are given herunder :—

**TASMANIAN ELECTIONS, HOUSE OF ASSEMBLY.**

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1919	53,205	54,336	107,541	37,037	34,027	71,064	69.61	62.62	66.08
1922	54,958	55,591	110,549	38,457	31,295	69,752	69.96	56.30	63.09
1925	56,667	58,234	114,901	41,322	35,959	77,281	72.92	61.81	67.25
1928	55,058	56,898	111,956	46,769	44,910	91,679	84.94	78.94	81.90
1931	59,024	59,706	118,730	56,674	56,105	112,779	96.02	93.97	94.99

The present members of the Legislative Council have been elected at various dates and the following particulars are given of the last contested election in each case :— Number of electors on the roll, 49,004 ; number of votes recorded, male 22,634, female, 7,000, total 29,634 ; percentage of persons who voted to the number on the roll, 60.48.

The suffrage was granted to women under the Constitution Amendment Act 1903 and compulsory voting came into force on the passing of the Electoral Act in 1928.

**§ 3. Administration and Legislation.**

1. *The Commonwealth Parliaments.*—The first Parliament of the Commonwealth was convened by proclamation dated 29th April, 1901, by His Excellency the late Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on the 9th May following by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King, the Rt. Hon. Sir Edmund Barton, P.C., G.C.M.G., K.C., being Prime Minister.

The following table gives the number and duration of Parliaments since Federation :—

**COMMONWEALTH PARLIAMENTS.**

Number of Parliament.	Date of Opening.	Date of Dissolution.
First .. .. .	9th May, 1901 .. ..	23rd November, 1903
Second .. .. .	2nd March, 1904 .. ..	5th November, 1906
Third .. .. .	20th February, 1907 .. ..	19th February, 1910
Fourth .. .. .	1st July, 1910 .. ..	23rd April, 1913
Fifth .. .. .	9th July, 1913 .. ..	30th July, 1914 (a)
Sixth .. .. .	8th October, 1914 .. ..	23rd March, 1917
Seventh .. .. .	14th June, 1917 .. ..	31st October, 1919
Eighth .. .. .	26th February, 1920 .. ..	6th November, 1922
Ninth .. .. .	28th February, 1923 .. ..	3rd October, 1925
Tenth .. .. .	13th January, 1926 .. ..	9th October, 1928
Eleventh .. .. .	9th February, 1929 .. ..	16th September, 1929
Twelfth .. .. .	20th November, 1929 .. ..	27th November, 1931
Thirteenth .. .. .	17th February, 1932 .. ..	

(a) On this occasion, the Governor-General, acting on the advice of the Ministry, and under section 57 of the Constitution, granted a dissolution of both the Senate and the House of Representatives, this being the first occasion since Federation on which a dissolution of both Houses had occurred.

2. **Governors-General and Ministries.**—The following statements show the names of the several Governors-General, and the Ministries which have directed the administration of the affairs of the Commonwealth since its creation :—

## (a) GOVERNORS-GENERAL.

- Rt. Hon. EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), P.C., K.T., G.C.M.G., G.C.V.O. From 1st January, 1901, to 9th January, 1903.  
 Rt. Hon. HALLAM BARON TENNYSON, P.C., G.C.M.G. From 17th July, 1902, to 9th January, 1903 (Acting).  
 Rt. Hon. HALLAM BARON TENNYSON, P.C., G.C.M.G. From 9th January, 1903, to 21st January, 1904.  
 Rt. Hon. HENRY STAFFORD BARON NORTHCOTE, P.C., G.C.M.G., G.C.I.E., C.B. From 21st January, 1904, to 9th September, 1908.  
 Rt. Hon. WILLIAM HUMBLE EARL OF DUDLEY, P.C., G.C.B., G.C.M.G., G.C.V.O., &c. From 9th September, 1908, to 31st July, 1911.  
 Rt. Hon. THOMAS BARON DENMAN, P.C., G.C.M.G., K.C.V.O. From 31st July, 1911, to 18th May, 1914.  
 Rt. Hon. SIR ROLAND CRAUFURD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), P.C., G.C.M.G. From 18th May, 1914, to 6th October, 1920.  
 Rt. Hon. HENRY WILLIAM BARON FORSTER OF LEPE, P.C., G.C.M.G. From 6th October, 1920, to 8th October, 1925.  
 Rt. Hon. JOHN LAWRENCE BARON STONEHAVEN, P.C., G.C.M.G., D.S.O. From 8th October, 1925, to 22nd January, 1931.  
 Lieut.-Colonel the Rt. Hon. ARTHUR HERBERT TENNYSON, BARON SOMERS, K.C.M.G., D.S.O., M.C. From 3rd October, 1930, to 22nd January, 1931 (Acting).  
 Rt. Hon. SIR ISAAC ALFRED ISAACS, P.C., G.C.M.G. From 22nd January, 1931.

## (b) MINISTRIES.

- (i) BARTON GOVERNMENT, 1st January, 1901, to 23rd September, 1903.  
 (ii) FIRST DEAKIN GOVERNMENT, 23rd September, 1903, to 26th April, 1904.  
 (iii) WATSON GOVERNMENT (Labour), 26th April to 17th August, 1904.  
 (iv) REID-McLEAN GOVERNMENT, 17th August, 1904, to 4th July, 1905.  
 (v) SECOND DEAKIN GOVERNMENT, 4th July, 1905, to 12th November, 1908.  
 (vi) FIRST FISHER GOVERNMENT (Labour), 12th November, 1908, to 2nd June, 1909.  
 (vii) THIRD DEAKIN GOVERNMENT, 2nd June, 1909, to 29th April, 1910.  
 (viii) SECOND FISHER GOVERNMENT (Labour), 29th April, 1910, to 24th June, 1913.  
 (ix) COOK GOVERNMENT, 24th JUNE, 1913, to 17th September, 1914.  
 (x) THIRD FISHER GOVERNMENT (Labour), 17th September, 1914, to 27th October, 1915.  
 (xi) FIRST HUGHES GOVERNMENT (Labour), 27th October, 1915, to 14th November, 1916.  
 (xii) SECOND HUGHES GOVERNMENT (Labour), 14th November, 1916, to 17th February, 1917.  
 (xiii) AUSTRALIAN NATIONAL WAR GOVERNMENT, 17th February, 1917, to 10th January, 1918.  
 (xiv) AUSTRALIAN NATIONAL WAR GOVERNMENT, 10th January, 1918, to 9th February, 1923.  
 (xv) BRUCE-PAGE GOVERNMENT, 9th February, 1923, to 22nd October, 1929.  
 (xvi) SCULLIN GOVERNMENT (Labour), 22nd October, 1929, to 6th January, 1932.

## (c) LYONS GOVERNMENT, from 6th January, 1932.

DEPARTMENTS.	MINISTERS (June, 1933).
Prime Minister and Treasurer .. .. .	Rt. Hon. JOSEPH ALOYSIUS LYONS, P.C.
Attorney-General, Minister for External Affairs and Minister for Industry .. .. .	Rt. Hon. JOHN GREIG LATHAM, P.C., G.C.M.G., K.C.
Minister without Portfolio .. .. .	Rt. Hon. STANLEY MELBOURNE BRUCE, C.H., P.C., M.C.
Minister for Defence .. .. .	*Rt. Hon. SIR GEORGE FOSTER PEARCE, P.C., K.C.V.O.
Postmaster-General .. .. .	Hon. ROBERT ARCHDALE PARKHILL.
Vice-President of the Executive Council .. .. .	*Hon. ALEXANDER JOHN McLACHLAN.
Minister for Health and Minister for Repatriation .. .. .	Hon. CHARLES WILLIAM CLANAN MARR, D.S.O., M.C., V.D.
Minister for the Interior .. .. .	Hon. JOHN ARTHUR PERKINS.
Minister for Commerce .. .. .	Hon. FREDERICK HAROLD STEWART.
Minister for Trade and Customs .. .. .	Hon. THOMAS WALTER WHITE, D.F.C., V.D.
Assistant Ministers .. .. .	{ Hon. SIR WALTER MASSY GREENE, K.C.M.G. Hon. JOSIAH FRANCIS. Hon. JAMES ALLAN GUY.

° Senator.

3. **State Ministries.**—The names of the members of the Ministries in each State in June, 1933, are shown in the following statement. The date on which each Ministry was sworn in is stated in parentheses :—

**STATE MINISTRIES, 1933.**

**NEW SOUTH WALES (16th May, 1932).**

(On the 13th May, 1932, the Governor of New South Wales withdrew the commission of the Hon. J. T. Lang and commissioned the Hon. B. S. B. Stevens to form a ministry.)

<i>Premier and Colonial Treasurer</i> — HON. B. S. B. STEVENS.	<i>Minister for Agriculture</i> — HON. H. MAIN.
<i>Deputy Premier and Minister for Transport</i> — LIEUT.-COL. THE HON. M. F. BRUXNER, D.S.O.	<i>Assistant Minister in the Legislative Council</i> — HON. J. RYAN, M.L.C.
<i>Secretary for Public Works and Minister for Health</i> — HON. R. W. D. WEAVER.	<i>Assistant Treasurer and Minister for Local Government</i> — HON. E. S. SPOONER.(a) (b)
<i>Attorney-General and Vice-President of the Executive Council</i> — HON. H. E. MANNING, K.C., M.L.C.(a)	<i>Secretary for Mines and Minister for Forests</i> — HON. R. S. VINCENT.(a)
<i>Secretary for Lands</i> — HON. E. A. BUTTENSCHAW.	<i>Minister for Justice</i> — HON. L. O. MARTIN.(a)
<i>Colonial Secretary</i> — CAPT. THE HON. F. A. CHAFFEY.	<i>Honorary Minister assisting the Minister for Labour and Industry</i> — HON. H. M. HAWKINS, M.L.C.(d)
<i>Minister for Education</i> — HON. D. H. DRUMMOND.	<i>Honary Minister without Portfolio</i> — HON. H. P. FITZSIMONS.(c)
<i>Minister for Labour and Industry</i> — HON. J. M. DUNNINGHAM.	

(a) Sworn in on the 18th June, 1932. (b) Sworn in as Minister for Local Government, also, on the 15th February, 1933. (c) Sworn in on the 15th February, 1933. (d) Sworn in as Honorary Minister assisting the Minister for Labour and Industry on the 18th June, 1932.

**VICTORIA (19th May, 1932).**

<i>Premier, Treasurer, and Minister of Public Health</i> — HON. SIR S. S. ARGYLE, K.B.E.	<i>Minister of Public Instruction</i> — HON. J. W. PENNINGTON, C.B.E.
<i>Chief Secretary, and Minister in Charge of Electrical Undertakings</i> — HON. I. MACFARLAN.	<i>Commissioner of Public Works, Minister of Mines, Minister in Charge of Immigration, and a Vice-President of the Board of Land and Works</i> — HON. J. P. JONES, M.L.C.
<i>Attorney-General, Solicitor-General, and Minister of Railways, and a Vice-President of the Board of Land and Works</i> — HON. R. G. MENZIES, K.C.	<i>Minister of Water Supply and Minister of Labour</i> — HON. G. L. GOUDIE, M.L.C.
<i>Minister of Agriculture, and a Vice-President of the Board of Land and Works</i> — HON. J. ALLAN.	<i>Ministers without Portfolio</i> — COL. THE HON. H. E. COHEN, C.M.G., D.S.O., V.D., M.L.C.
<i>President of the Board of Land and Works, Commissioner of Crown Lands and Survey, and Minister of Forests</i> — HON. A. A. DUNSTAN.	HON. A. E. CHANDLER, M.L.C. HON. W. S. KENT-HUGHES. HON. T. C. MANFOLD.

**QUEENSLAND (17th June, 1932.) (Labour.)**

<i>Premier, Chief Secretary, Treasurer and Vice-President of the Executive Council</i> — HON. W. FORGAN SMITH.	<i>Minister for Transport</i> — HON. J. DASH.
<i>Secretary for Public Lands</i> — HON. P. PEASE.	<i>Secretary for Mines</i> — HON. J. STOPFORD.
<i>Attorney-General</i> — HON. J. MULLAN.	<i>Secretary for Public Instruction</i> — HON. F. A. COOPER.
<i>Home Secretary</i> — HON. E. M. HANLON.	<i>Secretary for Agriculture and Stock</i> — HON. F. W. BULCOCK.
<i>Secretary for Labour and Industry</i> — HON. M. P. HYNES.	<i>Secretary for Public Works</i> — HON. H. A. BRUCE.

## SOUTH AUSTRALIA (18th April, 1933).

<i>Premier, Treasurer, and Minister of Immigration—</i> HON. R. L. BUTLER.	<i>Commissioner of Crown Lands, Minister of Repatriation, and Minister of Irrigation—</i> HON. M. MCINTOSH.
<i>Chief Secretary, Minister of Mines, and Minister of Afforestation—</i> HON. G. RITCHIE, M.L.C.	<i>Commissioner of Public Works, Minister of Railways, and Minister of Marine—</i> HON. H. S. HUDD, M.C.
<i>Attorney-General, Minister of Education, and Minister of Industry and Employment—</i> HON. S. W. JEFFRIES.	<i>Minister of Agriculture and Minister of Local Government—</i> HON. A. P. BLESING, M.L.C.

## WESTERN AUSTRALIA (26th April, 1933). (Labour.)

<i>Premier, Treasurer and Minister for Forests—</i> HON. P. COLLIER.	<i>Minister for Lands and Immigration—</i> HON. M. F. TROY.
<i>Minister for Public Works, Labour and Water Supplies—</i> HON. A. MCCALLUM.	<i>Minister for Agriculture and the Northwest—</i> HON. H. MILLINGTON.
<i>Minister for Justice, Railways and Education—</i> HON. J. C. WILLCOCK.	<i>Minister for Employment and Industrial Development—</i> HON. J. J. KENNEALLY.
<i>Chief Secretary—</i> HON. J. M. DREW, M.L.C.	<i>Minister without Portfolio—</i> HON. W. H. KITSON, M.L.C.
<i>Minister for Mines and Health—</i> HON. S. W. MUNSIE.	

## TASMANIA (15th June, 1928).

<i>Premier, Treasurer, and Minister for Forestry and Agriculture—</i> HON. J. C. MCPHEE.	<i>Attorney-General and Minister for Education—</i> HON. H. S. BAKER.
<i>Chief Secretary and Minister for Railways and Mines—</i> HON. C. E. W. JAMES.	<i>Minister for Lands, Works, and Closer and Soldier Settlement—</i> HON. SIR W. H. LEE, K.C.M.G.
	<i>Ministers without Portfolio—</i> HON. A. L. WARDLAW, M.L.C. HON. E. HOBBS.

4. *The Course of Legislation.*—The actual legislation by the Commonwealth Parliament up to the end of the 1932 session is indicated in alphabetical order in "Vol. XXX. of the Acts of the Parliament of the Commonwealth of Australia, passed during the year 1932, with Tables, Appendix, and Indexes." A "Chronological Table of Acts passed from 1902 to 1931, showing how they are affected by subsequent legislation or lapse of time" is also given, and further "A Table of Commonwealth Legislation," for the same period, "in relation to the several provisions of the Constitution," is furnished. Reference should be made to these for complete information. In previous issues of the Official Year Book an analytic table was included showing the nature of Commonwealth legislation in force at the end of the latest year available. A classified analysis up to the end of the year 1928 will be found in No. 22, pp. 76 to 84.

5. *Legislation during the Current Year.*—In issues of the Official Year Book prior to No. 23, the plan was adopted of giving a summary of the more important legislative enactments of the Commonwealth and State Parliaments during the current year.



§ 4. Cost of Parliamentary Government.

The following statement shows the cost of parliamentary government in the Commonwealth and in each State, as well as the cost per head of population, for the year ended 30th June, 1932. In order to avoid incorrect conclusions as to the cost of the Governor-General's or Governor's establishment, it may be pointed out that a very large part of the expenditure (with the exception of the item "Governor's salary") under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interests, and carried out at the request of the Government.

COST OF PARLIAMENTARY GOVERNMENT, 1931-32.

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
<b>1. Governor-General or Governor—</b>	£	£	£	£	£	£	£	£
Governor's salary ..	8,900	5,000	..	2,700	(l) 5,000	..	..	21,600
Lieut.-Governor's salary ..	..	..	4,000	..	..	(p) ..	750	4,750
Official Secretary's salary ..	..	663	(c)	323	80	282	..	1,348
Clerks, etc. ..	300	..	155	..	..	128	..	583
Orderlies ..	..	366	592	1,098	332	320	..	3,291
Other messengers ..	..	219	..	..	332	..	..	551
Wages—Housemaids, stewards, gamekeepers, etc. ..	m 2,532	849	807	2,070	..	896	583	7,737
Wages—Country residence ..	..	767	495	..	254	56	..	1,572
Furniture, stores, and stationery ..	452	158	136	..	507	28	..	1,273
Postal, cables, etc. ..	411	261	30	2,000	38	19	..	4,769
Travelling expenses and conveyance of officers ..	1,214	77	(f)	..	..	179	175	15,681
Incidental expenses (country residence) ..	..	565	52	..	17	..	..	634
Other expenses ..	(t) 7,634	..	612	389	394	333	..	8,762
<b>Total .. ..</b>	<b>21,443</b>	<b>8,925</b>	<b>6,879</b>	<b>8,580</b>	<b>6,954</b>	<b>2,241</b>	<b>1,503</b>	<b>56,530</b>
<b>2. Executive Council—</b>								
Salaries of Officers ..	(a)	698	344	25	..	98	(g)	1,165
Other expenses ..	(a)	20	32	60	..	54	(g)	166
<b>Total .. ..</b>	<b>(a)</b>	<b>718</b>	<b>376</b>	<b>85</b>	<b>..</b>	<b>152</b>	<b>(g)</b>	<b>1,331</b>
<b>3. Ministry—</b>								
Salaries of Ministers ..	11,858	17,456	7,775	10,300	6,362	5,801	3,988	63,540
Ministerial functions ..	(b)	587	(b)	..	..	2,823	186	3,596
Special Reports for Cabinet ..	(b)	28	(b)	..	3	..	..	31
Premiers' Conference ..	569	..	(b)	..	337	292	..	1,198
Travelling expenses ..	2,775	..	(b)	..	447	2,010	561	5,793
<b>Total .. ..</b>	<b>15,202</b>	<b>18,071</b>	<b>7,775</b>	<b>10,300</b>	<b>7,149</b>	<b>10,926</b>	<b>4,735</b>	<b>74,158</b>
<b>4. Parliament—</b>								
<b>A. Upper House:</b>								
President and Chairman of Committees ..	1,518	1,527	917	..	638	1,444	300	6,344
Allowance to members ..	28,324	..	5,247	..	6,224	13,262	5,829	58,886
Railway passes ..	5,760	19,428	(d) 9,000	..	1,212	5,683	1,018	42,101
Postage for members ..	1,400	60	(e)	..	38	110	(b)	1,608
<b>B. Lower House:</b>								
Speaker and Chairman of Committees ..	1,518	2,097	1,591	1,610	1,247	1,444	350	9,857
Allowance to members ..	59,004	55,225	24,522	30,740	14,561	22,626	9,335	216,113
Railway passes ..	12,160	18,494	(f)	13,713	2,788	10,227	1,721	59,103
Postage for members ..	3,900	2,707	(d) 732	1,411	234	300	..	9,284
<b>Carried forward, Parliament</b>	<b>113,584</b>	<b>99,538</b>	<b>42,009</b>	<b>47,474</b>	<b>27,042</b>	<b>55,096</b>	<b>18,553</b>	<b>403,296</b>

COST OF PARLIAMENTARY GOVERNMENT—*continued.*

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£	£	£	£	£	£	£	£
4. <i>Parliament</i> — <i>continued.</i>								
Brought forward ..	113,584	99,538	42,009	47,474	27,042	55,096	18,553	403,296
C. <i>Both Houses</i> :								
Standing Committee on Public Works—								
Remuneration of members ..	8	..	369	..	1,624	..	129	2,130
Salaries of Staff and contingencies ..	1,003	1,549	665	..	1,744	..	50	5,011
Printing—								
<i>Hansard</i> ..	13,268	7,135	7,275	4,729	2,970	2,041	..	37,418
Other ..	12,767	10,801	4,201	2,190	6,615	68	2,714	39,356
Parliamentary reporting staff—								
Salaries ..	10,734	7,077	4,980	2,585	5,438	3,817	..	34,631
Contingencies ..	209	138	34	..	167	68	..	616
Library—								
Salaries ..	4,887	2,559	1,773	862	733	50	(h)	10,864
Contingencies ..	1,828	884	440	724	326	213	(h)	4,415
Salaries of other officers and staff ..	27,394	22,375	10,786	5,568	6,073	5,652	2,224	80,072
Travelling expenses of officers and staff ..	492	..	..	..	..	..	(h)	492
Other ..	10,065	..	..	..	140	229	(h)	10,434
D. <i>Miscellaneous</i> —								
Fuel, light, heat, power, water ..	2,447	..	1,329	730	1,146	..	..	5,652
Posts, telegraphs, telephones ..	1,274	..	900	1,745	562	..	..	3,481
Furniture, stores, and stationery ..	46,559	1,000	135	327	437	1,476	850	66,835
Other ..	..	1,610	..	2,747	1,561	..	..	5,923
Total ..	246,519	154,666	74,896	69,681	56,578	68,710	24,520	695,570
5. <i>Electoral</i> —								
Salaries ..	65,943	2,345	943	2,703	2,720	2,535	(g)	77,189
Cost of elections, contingencies, etc. ..	131,281	34,602	25,899	25,998	3,304	4,684	2,476	228,244
Total ..	197,224	36,947	26,842	28,701	6,024	7,219	2,476	305,433
6. <i>Royal Commissions, Select Committees, etc.</i> , including fees and other expenses of Commissioners, fees of counsel, costs incurred by Ministers, cost of overtime worked by Departments preparing information, bonuses, etc. ..	469	..	282	17,194	1,815	2,083	..	21,843
Total ..	469	..	282	17,194	1,815	2,083	..	21,843
GRAND TOTAL ..	480,857 (n)	219,327	117,050	134,541	78,520	91,331	33,239	1,154,865
<i>Cost per head of population</i> ..	1s. 6d.	1s. 9d.	1s. 4d.	2s. 9d.	2s. 8d.	4s. 4d.	3s. 0d.	3s. 6d.

(a) Included under Governor-General. (b) Not available separately. (c) Included under Executive Council. (d) Both Houses. (e) Included under Lower House. (f) Included under Upper House. (g) Duties performed by Chief Secretary's Department. (h) Included under Miscellaneous, etc. (i) Includes rent of buildings, Melbourne, £5,277. (k) Includes interest and sinking fund, Parliament House, Canberra, £32,847. (l) £833 was repaid to revenue by His Excellency the Governor. (m) Maintenance of house and grounds. (n) Includes the following items, charged to Prime Minister's Department, which are excluded from the table dealing with Expenditure—Commonwealth Parliament in Chapter VIII.—Finance:—Premiers' Conferences, £569; Royal Commissions, £469; travelling expenses of Commonwealth Ministers, £2,775; and salaries and travelling allowances of officers acting as Secretaries to Leaders of Opposition in Senate and House of Representatives and Leader of Country Party, £2,277. (o) Includes Mungana and Chillagoe Royal Commission, £14,161. (p) Chief Justice, receives no additional salary.

Figures showing total cost and cost per head during each of the last five years are given in the next table.

COST OF PARLIAMENTARY GOVERNMENT.

Year.	C'wth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
TOTAL.								
	£	£	£	£	£	£	£	£
1927-28 ..	473,288	302,880	128,507	115,118	89,166	118,190	49,266	1,276,425
1928-29 ..	614,841	282,762	132,766	134,125	85,621	111,609	46,017	1,407,741
1929-30 ..	602,529	254,513	148,552	118,770	95,072	127,425	45,330	1,392,191
1930-31 ..	451,226	248,894	116,352	107,198	83,404	107,931	43,684	1,158,689
1931-32 ..	480,857	219,327	117,050	134,541	78,520	91,331	33,239	1,154,865

PER HEAD OF POPULATION.								
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1927-28 ..	1 6	2 6	1 6	2 7	3 1	6 0	4 7	4 1
1928-29 ..	1 11	2 4	1 6	2 11	2 11	5 6	4 3	4 5
1929-30 ..	1 11	2 1	1 8	2 7	3 3	6 1	4 2	4 4
1930-31 ..	1 5	2 0	1 4	2 3	2 10	5 2	4 0	3 7
1931-32 ..	1 6	1 9	1 4	2 9	2 8	4 4	3 0	3 6

§ 5. Strength of the Civil Service.

The strength of the permanent Civil Service at a definite point of time is not available as the dates to which annual records are made up vary in different State Departments. The following table excludes temporary (except railways and Government tramways) and part-time officers (registrars of births and deaths, postal contractors, etc.); naval, air, and military employees; and certain others, such as those employed in State trading undertakings:—

CIVIL SERVICE—NUMBER OF PERMANENT OFFICERS, 1931-32.

State, etc.	Railways and Tramways (a).		Police.		Teachers.		Other Departments.		Total Persons.
	M.	F.	M.	F.	M.	F.	M.	F.	
Commonwealth ..	1,093		13	..	..	..	24,263	3,333	28,702
New South Wales ..	49,691		3,645	8	5,665	7,455	6,431	1,768	74,663
Victoria ..	25,688		2,999	8	3,906	5,476	3,025	827	41,029
Queensland ..	15,436		1,231	2	2,073	2,226	3,687	1,177	25,832
South Australia ..	6,912		730	12	1,440	2,039	1,502	154	12,789
Western Australia ..	7,695		568	5	744	1,458	1,231	236	11,937
Tasmania ..	1,311		260	1	370	898	530	166	3,536
Northern Territory ..	(b)		40	..	4	8	(b)	(b)	52
Australia	(c)	(c)	8,586	36	14,202	19,560	40,669	7,661	198,540
	107,826		8,622		33,762		48,330		

(a) Salaried and wages staff; includes temporary employees—Municipal Tramways excluded.  
 (b) Included with Commonwealth. (c) Not available.

§ 6. Cost per Head of Population of Principal State Government Services.

For many purposes, e.g., for assessing State claims for Commonwealth assistance, it is required to compare State expenditure in respect of economy of administration and the scale of provision of social benefits such as education and hospitals. Expenditure per head of population is the natural test, but care should be taken in regard to items of expenditure included. Public debt charges are a heritage from the past, while expenditure on business undertakings has no meaning without reference to the revenue earned by them. These items should undoubtedly be left out of the comparison. The business undertakings omitted include Railways, Water Supply and Sewerage, Harbours, and Electricity Supply. Mineral resources vary so much between the States that it seems better to omit Government expenditure on mining. The expenditure on Lands and Surveys, Agriculture, and Forestry might be put theoretically in the same category as mining expenditure, but as the interest in these activities is widely spread over all States, these items are retained but kept in a separate group.

The first three items in the table hereunder are those which give the most significant comparison at the moment, and while it is appreciated that to some extent the information is defective, some progress has been made towards a reliable comparison of expenditure by the States on all the essential Government services. It is hoped that in future issues it will be possible to include a table which will give a more satisfactory measure of expenditure not only as regards each State from year to year but as between each of the several States.

**COST PER HEAD OF POPULATION OF PRINCIPAL STATE GOVERNMENT SERVICES.**

State.	Education.	Hospitals and Charities.	Law, Order and Public Safety.	Lands and Survey, Agriculture and Forestry.	General Government.	Total.
1921-22.						
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
New South Wales ..	35 0	17 4	16 3	10 6	38 11	118 0
Victoria ..	25 0	11 11	11 5	7 5	15 9	71 6
Queensland ..	35 0	26 0	17 4	11 6	16 0	105 10
South Australia ..	25 1	15 6	13 3	8 1	11 9	73 8
Western Australia ..	35 1	23 2	18 3	14 4	26 4	117 2
Tasmania ..	26 0	15 1	10 2	3 10	25 3	80 4
All States ..	30 11	17 2	14 8	9 6	25 4	97 7
1930-31.						
New South Wales ..	36 7	23 8	22 0	8 2	22 4	112 9
Victoria ..	31 6	(a) 28 10	13 7	16 8	17 6	108 1
Queensland ..	33 6	23 3	16 3	8 6	14 8	96 2
South Australia ..	33 11	(a) 42 11	16 7	5 5	13 3	112 1
Western Australia ..	34 7	(a) 39 9	18 0	8 2	23 0	123 6
Tasmania ..	28 2	(a) 21 0	12 11	5 8	33 4	101 1
All States ..	34 1	27 9	17 9	10 3	19 6	109 4
(a) See letterpress below.						
1931-32.						
New South Wales ..	33 2	24 3	18 2	7 0	21 10	104 5
Victoria ..	27 4	(a) 32 0	12 2	15 6	15 11	102 11
Queensland ..	31 0	19 9	15 0	7 4	11 9	84 10
South Australia ..	30 7	(a) 47 3	14 10	5 2	11 10	109 8
Western Australia ..	28 0	(a) 46 4	15 0	6 10	18 11	115 1
Tasmania ..	23 0	(a) 20 9	11 2	4 3	27 4	86 6
All States ..	30 4	29 1	15 3	9 2	17 10	101 8
(a) See letterpress below.						

For the year 1930-31, certain expenditure on unemployment relief has been included under hospitals and charities. The figures for Victoria include expenditure amounting to 13s. 10d. per head, while for South Australia, Western Australia and Tasmania the expenditure on this service represents 22s., 20s. 9d., and 2s. 6d. per head respectively. If these amounts are deducted, the expenditure for all States on Hospitals and Charities would be reduced from 27s. 9d. to 20s. 2d. per head. In regard to the other States, some portion of the total expenditure on unemployment relief is undoubtedly included, but such details are not available.

For the year 1931-32 the expenditure on unemployment relief included above, was as follows:—Victoria, 18s. 4d.; South Australia, 29s. 9d.; Western Australia, 30s. 7d.; and Tasmania, 4s. 7d.

### § 7. Consular Representatives of Foreign Countries in Australia.

The following tabular statement shows the number of consular representatives of foreign countries in each State for the year 1933 :—

#### CONSULAR REPRESENTATIVES IN AUSTRALIA, 1933.

Country.	Number of Consular Representatives in—						
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total, Aust.
Argentine Republic .. .. .	1	2	..	1	..	1	5
Austria .. .. .	1	1	..	..	..	..	2
Belgium .. .. .	3	1	1	1	1	1	8
Bolivia .. .. .	..	..	1	..	..	..	1
Brazil .. .. .	2	1	..	..	..	1	4
Chile .. .. .	1	1	..	1	..	..	3
China .. .. .	2	..	..	..	..	..	2
Colombia .. .. .	1	1	..	..	..	..	2
Costa Rica .. .. .	2	..	..	..	..	..	2
Czechoslovakia .. .. .	2	1	1	1	1	..	6
Denmark .. .. .	3	2	3	2	2	1	13
Dominican Republic .. .. .	..	2	..	..	..	..	2
Ecuador .. .. .	1	..	..	..	..	..	1
Estonia .. .. .	1	..	..	..	..	..	1
Finland .. .. .	2	1	1	1	1	..	6
France .. .. .	2	2	1	1	1	1	8
Germany .. .. .	3	..	1	..	1	..	5
Greece .. .. .	3	2	1	1	2	..	9
Guatemala .. .. .	..	1	..	..	..	..	1
Honduras .. .. .	1	1	..	..	..	..	2
Italy .. .. .	1	2	2	1	1	1	8
Japan .. .. .	2	2	1	1	1	..	7
Latvia .. .. .	1	1	1	1	..	..	4
Liberia .. .. .	..	..	..	1	..	..	1
Netherlands .. .. .	3	1	4	1	1	1	11
Nicaragua .. .. .	..	1	..	..	..	..	1
Norway .. .. .	3	2	3	3	3	2	16
Panama .. .. .	1	1	1	..	..	..	3
Paraguay .. .. .	1	..	..	..	1	..	2
Peru .. .. .	2	1	..	1	..	..	4
Poland .. .. .	1	1	..	..	..	..	2
Portugal .. .. .	1	1	1	..	..	..	3
Roumania .. .. .	1	..	..	..	..	..	1
Salvador .. .. .	..	1	..	..	..	..	1
Siam .. .. .	1	..	..	..	..	..	1
Spain .. .. .	3	1	1	1	1	..	7
Sweden .. .. .	3	2	3	3	1	1	13
Switzerland .. .. .	2	1	1	..	..	..	4
U.S.A. .. .. .	5	4	2	2	..	..	13
Uruguay .. .. .	1	1	..	..	..	..	2
Venezuela .. .. .	1	..	..	..	..	..	1
Yugoslavia .. .. .	1	1	..	..	1	..	3
<b>Total .. .. .</b>	<b>65</b>	<b>43</b>	<b>30</b>	<b>24</b>	<b>19</b>	<b>10</b>	<b>191a</b>

(a) In addition, Northern Territory has Consuls for China and the Netherlands, and New Guinea Consuls for China and Sweden.

Countries having Consuls-General in Sydney are Belgium, Chile, China, Costa Rica, Denmark, Ecuador, France, Germany, Greece, Italy, Japan, Netherlands, Norway, Paraguay, Poland, Siam, Spain, Sweden, Switzerland, and United States. Those having Consuls-General in Melbourne are Argentine Republic, Colombia, Honduras and Peru.

## CHAPTER IV. LOCAL GOVERNMENT.

### § 1. Introduction.

1. **General.**—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in New South Wales and South Australia, more especially in the large unincorporated areas, these duties are undertaken directly by the Government. In some States, moreover, a certain proportion of the roads and bridges is constructed and maintained by the Government, which, in addition, advances money for main roads to be expended by municipalities under the supervision of special Boards. Although roads, bridges and ferries constructed and maintained directly by Government do not properly come under the heading of "Local Government," they have been included in this chapter for the sake of convenience. The following statistics relating to "Local Government" are somewhat incomplete and otherwise unsatisfactory, but, hitherto, it has not been possible to obtain more complete information. A defect in the figures is due to inconsistency in some cases in the treatment of proceeds of loans and the expenditure thereof. These are sometimes included with the general revenue and expenditure, at others they are shown separately, and in still further cases particulars of loan receipts and expenditure have not been supplied.

2. **Municipalities, Shires, etc.**—A description of the various systems of municipal government in the different States, and their development from the earliest date, was published in 1919 by the Commonwealth Bureau of Census and Statistics in a separate work entitled "Local Government in Australia."

3. **Water Supply and Sewerage.**—In the cities of Sydney and Melbourne the control of water supply and sewerage is in the hands of special Boards, while in Adelaide and Perth these services are under the direct supervision of Government Departments. In most of the other cities and towns, the municipal councils, or, in some cases, water trusts, are the controlling bodies which either construct the works out of their own resources or take them over after they have been constructed by the Government.

4. **Harbours.**—The majority of the harbours in Australia are managed by Boards, the members of which are either elected by persons interested or appointed by the Government. In a few instances, however, they are directly controlled by the Government. Only those which are controlled by Boards are dealt with in the following pages.

5. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by Boards. The members of these Boards are usually elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, together with one or more appointed by the Government, while occasionally volunteer or country fire brigades are represented.

### § 2. Government Roads, Bridges, Etc.

1. **New South Wales.**—(i) *General.* The control of all roads, bridges and ferries with the exception of those proclaimed as "National" and of those in the unincorporated areas of the Western Division, which still remain under its jurisdiction, was transferred, in 1920, from the Public Works Department to local authorities. The Government has also adopted the policy of assisting municipal and shire councils to recondition certain main roads by doing the work in the first instance, and recovering in instalments from the councils concerned one-half of the cost.

(ii) *Roads, Bridges and Ferries.* At the 30th June, 1932, the "National" works consisted of 97 bridges with a total length of 33,840 feet, and 5 ferries, while in the unincorporated areas of the Western Division, under the control of the Public Works Department, there were 6,181 miles of roads (of which 301 miles were metalled or ballasted, 662 formed only, and 2,503 cleared only), 149 bridges of a total length of 19,647 feet, 736 culverts, 1,130 causeways, and 5 hand punts.

(iii) *Expenditure on Roads, Bridges and Ferries.* The total expenditure by the Government during 1931-32 was £1,696,272, comprising expenditure from votes of the Public Works Department £161,903, from funds of the Main Roads Board £1,311,698 and endowments and grants to Councils from votes of the Local Government Department £222,671.

The Government expenditure in connexion with the Sydney Harbour Bridge, £1,629,178 in 1931-32 and £9,766,124 to the 30th June, 1932, is not included in the above figures. Of the total sum expended on the bridge to date, £8,088,437 was provided by General Loan Account, £1,667,378 from proceeds of municipal and shire rates and £10,304 from the Unemployment Relief Fund. Interest and exchange accounted for £1,484,902, and resumptions for £1,325,789. Surplus lands included in resumptions are to be sold, thus reducing the total cost of the bridge.

2. *Victoria.*—(i) *General.* A small sum is expended annually by the State Government on roads and bridges, and a considerable amount of loan money is advanced in each year to the Country Roads Board for the purpose of constructing and maintaining main and developmental roads. The amount expended from loan and on account of loan funds, during the year ending 30th June, 1931, was £211,603, and in 1931-32, £85,582. An annual payment temporarily reduced from £50,000 to £40,000 is also made out of Consolidated Revenue to the Board for maintenance works.

(ii) *Direct Expenditure by Government.* The amount of money expended directly by the Government through the Public Works Department on roads and bridges during the year 1931-32 was £42,167.

(iii) *Country Roads Board.* (a) *Duties.* The duties of this Board were given in some detail in Year Book No. 15, p. 526.

(b) *Finance.* The funds established under the Country Roads Act are the Country Roads Board Fund, the Loan Account, and the Developmental Roads Loan Account.

(1) *Country Roads Board Fund.* All registration fees, licence fees and fines under the Motor Car Act, all licence fees and fines under the Motor Omnibus Act, and all registration fees and fines for traction-engines are credited to this fund. The total receipts for the year 1931-32 were £1,547,532, made up as follows:—Motor registration and licence fees £1,058,490; contributions by municipalities for permanent works £142,636, and for maintenance works £171,434; sale of stores and material £106,167; and other sources £68,805. The expenditure for the year was £1,518,383, comprising maintenance and reconditioning of main roads and State highways £647,422; interest, stores, administration, etc., £700,691; road construction £7,952; and other expenses £162,318.

(2) *Country Roads Board Loan Account.* Loans to the amount of £4,822,000 have been authorized from time to time for permanent works under the Country Roads Acts. One half of the amount expended on permanent works and one-third of the amount expended on maintenance must be refunded by the municipalities affected, 6 per cent. of the amount due in respect of permanent works being payable annually, and the cost of maintenance allocated to each municipality must be paid before the 1st of July in each year. A special rate, not exceeding 6d. in the pound, may be levied in any ward or riding of a municipality for the purpose of such repayment. Expenditure for the year ended 30th June, 1932, was £16,700, and the total to that date £4,630,366.

(3) *Developmental Roads Loan Account.* For the purpose of constructing and maintaining subsidiary or developmental roads, the Government has been authorized to borrow sums aggregating £6,475,000. The work is carried out under the supervision of the Country Roads Board, and the State provides the whole of the money and makes provision out of State funds for liquidating the liability; the municipalities, however, are required to bear a proportion of the interest on the outlay during the period of the loan and to maintain the roads when constructed. The amount expended during the year ended 30th June, 1932, was £81,967, and the total expenditure to that date was £6,146,956.

3. *Queensland.*—Under "The Main Roads Act of 1920" a Main Roads Board was constituted, consisting of three members appointed by the Governor in Council. Subsequently the Board was abolished and its powers conferred upon a single Commissioner.

The duties of the Commissioner, as defined by "The Main Roads Acts, 1920 to 1929," are to carry out such surveys and investigations as are deemed necessary or expedient to determine what roads shall be main, developmental or tourist roads or State highways, and, under certain circumstances, to undertake the construction and maintenance of such roads. Before any road can be proclaimed a main, developmental or tourist road the Local Authorities through whose areas such road passes have the right to lodge objections thereto, and the Commissioner must consider such objections and, if necessary, vary his decision. No such action is necessary in the case of State highways.

Local Authorities are not liable for the return of any expenditure for construction on State Highways or on arterial roads declared under the Federal Aid Roads Act. They are, however, responsible for 50 per cent. of maintenance of the former and 33½ per cent. of the latter roads.

At 30th June, 1932, there were 8,776 miles of roads gazetted in the State, comprising 6,687 miles of main, 419 miles of developmental, 102 miles of tourist roads, and 1,568 miles of State highways; 1,991 miles of roadway and 33,457 lineal feet of bridges had been completed at that date, and 290 miles of road and 3,733 lineal feet of bridges were in course of construction. In addition, there were at 30th June, 1932, 44 miles of roads in course of construction under the State Unemployment Relief Scheme.

During the year ended 30th June, 1932, the receipts of the Commission amounted to £1,576,655, including £200,000 from the Treasury Loan Fund, £470,497 from motor fees, £355,480 from the Commonwealth for works under the Federal Aid Road scheme and £425,056 from the State Unemployment Relief Scheme. Disbursements amounted to £1,239,719, including £234,918 on permanent works, £198,378 on works under the Federal Aid Roads scheme, £138,863 on the maintenance of roads and £424,396 on works under the State Unemployment Relief scheme.

4. **South Australia.**—The Highways Act 1926 created a Commissioner of Highways and provided for a Main Roads Fund. The Commissioner is virtually empowered to determine upon which roads he will spend the moneys available, in doing which he has to take into account (a) the moneys voted, or likely to be voted, by Parliament for main roads; (b) whether the road is or will be the main trunk route: (i) connecting any large producing area, or any area capable of becoming in the near future a large producing area, with its market or nearest port or railway station; (ii) connecting two or more large producing areas, or areas capable of becoming in the near future large producing areas, or between two or more large centres of population; (iii) between the capital and any large producing area or any large centre of population; (iv) between the capitals of this State and any other State; and (c) whether the area through which the road passes is, or in the near future will be, sufficiently served by a railway or railways.

The Main Roads Fund is to be credited with (a) licence fees and registration fees under the Motor Vehicles Acts 1921 to 1929; (b) licence fees under the Vehicles (Licensing) Act 1925; (c) fines, penalties, and forfeitures in respect of convictions for offences against the Motor Vehicles Acts (exclusive of any sum received for costs), or the Width of Tires Acts; (d) fees for hawkers' licences issued by the Treasurer; (e) contributions from Councils; (f) all sums appropriated by Parliament for main roads; (g) all loans raised and appropriated for main roads. In accordance with legislation passed in 1930 and 1932 a considerable portion of these receipts is temporarily payable into general revenue. All moneys received by the State from the Commonwealth under the Federal Aid Roads Agreement are also expended by the Commissioner of Highways under the general provisions of the Highways Act.

The expenditure from the Main Roads Fund for the year ended 30th June, 1932, was £351,991; the amount received from the Commonwealth Government for expenditure on Federal Aid Roads was £234,128; the amount allocated for roads in newly settled areas, etc., was £12,018; and grants in aid of rates collected paid to Councils amounted to £27,000. In the sparsely-settled districts outside the incorporated areas, the roads and bridges are constructed and maintained by the Public Works Department under arrangement with the Commissioner of Highways. The amount expended during the same period was £7,971.



5. **Western Australia.**—In Western Australia the construction, maintenance, and management of main and development roads throughout the State are under the control of the Commissioner of Main Roads, appointed under the Main Roads Act 1930. Minor roads are controlled by Municipalities and District Road Boards.

6. **Tasmania.**—(i) *Construction.* In Tasmania the cost of construction of roads and bridges is borne almost entirely by the State Government.

Up to the 30th June, 1932, the loan expenditure on these works was £5,015,444 (roads, £4,138,248; tracks, £232,930; bridges, £644,266). In addition, half the proceeds of the sale of land has been applied to form a Crown Lands Fund for the construction of roads to new holdings. Under this provision £686,134 has been expended. This fund has in recent years more than met the demands on it, and expenditure therefrom since 1918 has been limited to £10,000 annually, the balance being used for redemption of debt.

The Government loan expenditure during the year 1931-32 on the construction of roads and bridges was £27,040, and expenditure from the Crown Lands Fund £1,722. In addition, the sum of £61,441 provided by the Commonwealth Government was expended on roads: the conditional expenditure by the State Government is included in the above figures. The amount of new-road mileage for the year was 43 miles cleared, 68 miles formed, 48 miles metalled, and 18 miles gravelled, including 21, 26, 27 and 1 miles respectively constructed out of Federal and State votes under the Federal Aid Roads and Federal Relief schemes.

(ii) *Maintenance.* The maintenance of roads, other than "State highways," is undertaken by the municipalities out of their own revenues. All bridges which cost over £50 are maintained by the State Government. The maintenance of "State highways" is provided for by the *State Highways Act 1929*, which created the State Highways Trust Fund to which is to be paid from Consolidated Revenue and credited annually in each financial year for the purposes of the Act a sum equal to the amount of all motor taxes collected in the immediately preceding financial year and paid into the Treasury, less 2 per cent. The length of "State highways" is 1,101 miles and the expenditure thereon for 1931-32 was £49,519.

7. **Summary of Net Loan Expenditure on Roads and Bridges.**—Figures showing the total expenditure on roads and bridges in the States are not available. The subjoined statement, however, gives the amounts of net loan expenditure by the State Governments up to the 30th June, 1932.

**ROADS AND BRIDGES.—GOVERNMENT NET LOAN EXPENDITURE TO THE 30th JUNE, 1932.**

Expenditure.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
Total to 30/6/32	16,203,359	11,727,876	3,811,662	3,149,536	1,975,797	5,015,444	41,883,674

The following table shows the annual net loan expenditure on roads and bridges by the central Governments in each State during the years 1927-28 to 1931-32:—

**ROADS AND BRIDGES.—NET LOAN EXPENDITURE.**

Year ended 30th June—	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1928 ..	2,558,070	926,134	262,203	144,866	364,223	176,118	4,431,614
1929 ..	3,120,075	820,778	342,152	10,856	384,685	204,546	4,883,092
1930 ..	1,615,873	716,111	356,967	Cr. 31,419	315,325	168,531	3,141,388
1931 ..	1,593,202	216,784	181,758	Cr. 16,446	..	67,706	2,043,004
1932 ..	1,277,197	99,073	188,799	Cr. 36,472	..	27,040	1,555,637

(a) Represents expenditure from loan and on account of loan.

The loan expenditure given above does not represent the total expenditure on roads and bridges. It relates for the most part to capital expenditure on new works, but it must be supplemented by similar expenditure from loan funds of local bodies, and further account must be taken of expenditure on maintenance which is mainly defrayed from the current revenues.

### § 3. Municipalities, Shires, Etc.

1. **New South Wales.**—(i) *General.* Practically the whole of the State, with the exception of the greater portion of the Western Division, has been divided into municipalities and shires, the total area incorporated at the end of 1931 being 184,008 square miles, of which 2,424 square miles are included in the former and 181,584 in the latter. The areas incorporated comprise the whole of the Eastern and Central Divisions of the State (with the exception of Lord Howe Island, the islands in Port Jackson and the quarantine station at Port Jackson) and a small portion of the Western Division consisting of the whole of six and part of two municipalities.

(ii) *Municipalities.*—(a) *Summary.* The following table gives the number, area and population of municipalities, together with the length of roads and the number of bridges and ferries therein for the year 1931 :—

#### MUNICIPALITIES, NEW SOUTH WALES.—SUMMARY.

Year.	No. of Municipalities.	Sydney and Suburbs.		Country.		Length of Roads.	Bridges.	Ferries.
		Area.	Population.	Area.	Population.			
1931	181	Acres. 115,896	No. 1,161,020	Acres. 1,435,659	No. 637,700	Miles. 10,858(a)	No. 645(b)	No. 38(a)

(a) Year 1930.

(b) Year 1927—latest available.

Of the 10,858 miles of roads, 5,780 were blocked, metalled, ballasted or gravelled, 1,973 formed only, and 1,812 cleared only, while 1,293 miles were natural surface.

(b) *Unimproved and Improved Values.* The table hereunder gives a comparison of the unimproved and improved values for the year 1931 :—

#### MUNICIPALITIES, NEW SOUTH WALES.—CAPITAL VALUES.

Year.	Sydney.	Suburbs.	Total Metropolis.	Country.	Grand Total.
UNIMPROVED VALUE.					
1931 .. ..	£ 56,960,774(a)	£ 109,303,461	£ 166,264,235	£ 49,733,010	£ 215,997,245
IMPROVED VALUE.					
1931 .. ..	192,194,440a	309,789,207	501,983,647	156,154,313	658,137,960

(a) Exclusive of Federal Government and other non-rateable properties for which valuation was not made.

(c) *Revenue and Expenditure.* Particulars of the revenue and expenditure of municipalities for the year ending 31st December, 1931, under various headings, are given below :—

## MUNICIPALITIES, NEW SOUTH WALES.—REVENUE AND EXPENDITURE.

Particulars.	Sydney.	Suburbs.	Country.	Total.
<b>REVENUE.</b>				
	£	£	£	£
Rates and charges ..	(a)1,082,930	2,313,174	1,157,671	4,553,775
Public works .. ..	34,548	305,535	203,404	543,487
Health administration ..	43,517	159,423	278,313	481,253
Public services .. ..	137,587	33,512	31,298	202,397
Municipal property ..	24,873	26,662	57,819	109,354
Other .. ..	325,060	29,966	24,371	379,397
Total ordinary services ..	1,648,515	2,868,272	1,752,876	6,269,663
Trading accounts .. ..	(b)2,319,578	51,536	1,065,523	3,436,637
Water and sewerage accounts .. ..	..	..	401,042	401,042
Gross revenue .. ..	3,968,093	2,919,808	3,219,441	10,107,342
<b>EXPENDITURE.</b>				
Administration .. ..	71,535	156,366	163,069	390,970
Public works .. ..	161,661	1,347,399	697,311	2,206,371
Health administration ..	165,039	372,613	331,531	869,183
Public services .. ..	155,507	248,164	190,032	593,703
Municipal property .. ..	40,864	36,580	34,542	111,986
Interest .. ..	598,868	308,778	120,828	1,028,474
Other .. ..	341,949	32,502	33,506	407,957
Harbour Bridge and Main Roads Board Contributions .. ..	178,161	281,654	30,285	490,100
Total ordinary services ..	1,713,584	2,784,056	1,601,104	6,098,744
Trading accounts .. ..	2,523,897	44,473	951,278	3,519,648
Water and sewerage accounts .. ..	..	..	356,839	356,839
Gross expenditure .. ..	4,237,481	2,828,529	2,909,221	9,975,231

(a) Includes Harbour Bridge Rate, £118,888, and Main Roads Board Rate, £59,273. (b) Electricity works.

The above figures for revenue are exclusive of loan receipts, particulars of which are not available. Loans raised during the year, however, were as follow :—City of Sydney, £148,000; suburbs of Sydney, £118,000; country municipalities, £24,240; a total of £290,240. The figures for expenditure for the City of Sydney are exclusive of £679,127 expenditure from loans. The expenditure included for other municipalities relates to "revenue expenditure" and includes loan moneys expended on road construction and other works not resulting in realizable assets or assets to be used over a period of time in fulfilling ordinary services. The amount of "capital expenditure" from both revenue and loans is not available.

(d) *Assets and Liabilities.* The financial position of the municipalities as at the 31st December, 1931, is shown by the following statement of assets and liabilities.

MUNICIPALITIES, NEW SOUTH WALES.—ASSETS AND LIABILITIES, 1931.

Particulars.	Sydney.	Suburbs.	Extra Metropolitan.	Country.	Total.
<b>ASSETS.</b>					
	£	£	£	£	£
Bank balances and cash.. ..	} 29,731,548(a)	245,699	54,935	551,211	851,845 (b)
Outstanding rates .. ..		664,825	143,236	542,839	1,350,900 (b)
Sundry debtors .. ..		255,887	54,479	435,587	745,953 (b)
Stores and materials .. ..		42,424	7,457	126,515	176,396 (b)
Land, buildings, furniture, etc. ..		1,899,004	235,053	8,369,470	10,503,527 (b)
Other .. ..		17,101	3,979	66,420	87,500 (b)
<b>Total .. ..</b>	<b>29,731,548</b>	<b>3,124,940</b>	<b>499,139</b>	<b>10,092,042</b>	<b>43,447,669</b>

(a) Comprises the following:—Land, buildings, machinery, plant and stores, £23,618,928; sundry debtors, £758,169; cash and bank balances, £1,322,148; investments, £4,032,303.  
(b) Exclusive of Sydney.

**LIABILITIES.**

Loans, outstanding interest and sundry creditors .. ..	} 28,326,823(a)	5,726,855	505,047	3,060,505	9,292,407 (b)
Debts due to Government and interest thereon .. ..		181,770	31,178	4,071,139	4,284,087 (b)
Bank overdrafts .. ..		605,278	46,830	430,664	1,082,772 (b)
Other .. ..		32,704	9,504	80,230	122,438 (b)
<b>Total .. ..</b>		<b>28,326,823</b>	<b>6,546,607</b>	<b>592,559</b>	<b>7,642,538</b>

(a) Comprises the following:—Debentures, £24,793,179; sundry creditors, £2,014,212; bank overdrafts, £1,519,432.  
(b) Exclusive of Sydney.

(iii) *Shires.*—(a) *Summary.* The following table gives the number, area, population, and unimproved capital value of shires, together with the length of the roads, and the number of bridges and ferries therein. It is not possible to give the improved capital value or the assessed annual value, as shires are not compelled to make these valuations.

SHIRES, NEW SOUTH WALES.—SUMMARY.

Year.	No. of Shires.	Area.	Population.	Unimproved Capital Value.	Length of Roads.	Bridges.	Ferries.
1931 .. ..	No. 138	sq. miles. 181,584	No. 705,840	£ 162,739,570	miles. 101,737	No. 3,943(a)	No. 173(a)

(a) Year 1927—latest available.

Of the 101,737 miles of roads, 21,464 were metalled or ballasted, 17,928 formed only, and 30,616 cleared only, the balance being natural surface.

(b) *Revenue and Expenditure.* The revenue and expenditure of shires for the year 1931 are shown in the following table. Included in the receipts are Government grants amounting to £679,295, which together with Government endowment, £149,533 make a total for Government assistance of £828,828.

## SHIRES, NEW SOUTH WALES.—REVENUE AND EXPENDITURE, 1931.

Particulars.	Revenue.	Particulars.	Expenditure.
	£		£
Rates (including interest) ..	1,399,548	Administrative expenses ..	225,624
Government endowment ..	149,533	Public works .. ..	1,604,560
Public works .. ..	725,990	Health administration ..	138,252
Health Administration ..	136,808	Public services .. ..	87,480
Public services .. ..	15,840	Shire property .. ..	15,025
Shire property .. ..	28,427	Interest .. ..	93,513
Miscellaneous .. ..	13,326	Contributions to Main Roads	
Trading accounts .. ..	240,491	Board and Harbour Bridge	40,726
Water accounts .. ..	22,991	Other .. ..	45,100
		Trading accounts .. ..	203,202
		Water accounts .. ..	21,057
Total revenue .. ..	2,732,954	Total expenditure .. ..	2,474,539

The figures for revenue in the above table are exclusive of loan receipts, particulars of which are not available. Loans raised during the year, however, amounted to £10,000. As in the case of municipalities the expenditure shown for shires relates to "revenue expenditure".

(c) *Assets and Liabilities.* The finances of the shires at the end of the year 1931 showed an excess of assets of £638,555. The following table gives particulars of assets and liabilities as at the 31st December, 1931:—

## SHIRES, NEW SOUTH WALES.—ASSETS AND LIABILITIES, 1931.

Assets.	Amount.	Liabilities.	Amount.
	£		£
Bank balances and cash ..	269,971	Loans outstanding, interest	
Outstanding rates and interest	652,969	and sundry creditors ..	1,626,833
Sundry debtors .. ..	178,713	Bank overdrafts .. ..	416,328
Stores and materials .. ..	58,086	Debts due to the Govern-	
Land, buildings, furniture,		ment and interest thereon	490,443
plant, machinery, etc. ..	2,038,740	Other .. ..	64,620
Other .. ..	38,300		
Total .. ..	3,236,779	Total .. ..	2,598,224

2. Victoria.—(i) *General.* Local Government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, and except in a few details are not subject to the provisions of the Local Government Act.

The financial years of the cities of Melbourne and Geelong end on the 31st December and the 31st August respectively; those of all other municipalities on the 30th September.

(ii) *Municipalities. (a) Summary.* The following table shows the number of cities, towns, boroughs, and shires, with estimated population, number of ratepayers and dwellings, and value of rateable property for the year 1931:—

MUNICIPALITIES, VICTORIA.—SUMMARY.

Year ending 30th September—	Number of Municipalities.	Estimated Population.	Number of Ratepayers.	Estimated Number of Dwellings.	Estimated Value of Rateable Property.	
					Total.	Annual.
<b>CITIES, TOWNS, AND BOROUGHES.</b>						
1931 .. ..	No. 56	No. 1,180,190	No. 339,842	No. 277,583	£ 351,642,387	£ 19,391,762
<b>SHIRES.</b>						
1931 .. ..	140	654,790	264,723	162,146	278,253,957	13,971,878

(b) *Revenue and Expenditure.* The table hereunder shows the revenue from various sources, and the expenditure under various heads, of municipalities during the year 1931:—

MUNICIPALITIES, VICTORIA.—REVENUE AND EXPENDITURE, 1931.

Items.	Revenue.	Items.	Expenditure from Revenue.
	£		£
Taxation { Rates .. ..	3,578,517	Salaries, etc. .. ..	425,228
Licences .. ..	96,147	Sanitary work, street cleaning, etc. .. ..	432,325
Dog fees .. ..	26,303	Health .. ..	115,464
Government grants .. ..	202,630	Lighting .. ..	183,357
Licensing fund payments .. ..	61,272	Contributions to Fire Brigades .. ..	69,382
Contributions for streets, etc. .. ..	304,322	Public Works { Construction .. ..	272,718
Market and weighbridge dues .. ..	133,138	Maintenance .. ..	1,828,870
Sanitary charges .. ..	165,727	Formation of private streets, etc. .. ..	158,916
Rents .. ..	143,554	Electric light and gas works .. ..	858,338
Electric light and gas works .. ..	1,218,092	Redemption of loans .. ..	469,507
Other sources .. ..	533,106	Interest on loans .. ..	772,096
		Interest on bank overdrafts .. ..	73,674
		Charities .. ..	48,389
		Other expenditure .. ..	743,833
Total Revenue .. ..	6,462,808	Total from Revenue .. ..	6,452,097

## MUNICIPALITIES, VICTORIA.—LOANS—RECEIPTS AND EXPENDITURE, 1931.

Items.	Receipts.	Items.	Expenditure.
	£		£
Receipts from Loans ..	612,361	Roads and Bridges ..	238,595
		Water and Irrigation ..	15,106
		Sewerage and Drainage ..	34,353
		Electric Light and Gas ..	126,993
		Public Buildings ..	71,739
		Other purposes ..	315,589
Total Receipts ..	612,361	Total Expenditure ..	802,375

(c) *Assets and Liabilities.* The assets of municipalities may be classified under three heads (a) the municipal fund, (b) the loan fund and (c) property; the liabilities under two heads—(a) the municipal fund, and (b) the loan fund. The following table shows the amount of municipal assets and liabilities for the year 1931:—

## MUNICIPALITIES, VICTORIA.—ASSETS AND LIABILITIES, 1931.

Items.	Assets.	Items.	Liabilities.
<b>MUNICIPAL FUND—</b>	£	<b>MUNICIPAL FUND—</b>	£
Uncollected rates ..	930,396	Due on current contracts	40,943
Streets formed, etc., payments outstanding ..	1,334,953	Arrears due sinking funds	264
Rents and interest outstanding ..	25,805	Overdue interest ..	18,901
Cash in hand or in bank ..	541,461	Bank overdrafts ..	1,111,189
Other assets ..	344,215	Other liabilities ..	1,040,833
<b>LOAN FUND—</b>		<b>LOAN FUND—</b>	
(a) Sinking funds—		Loans outstanding ..	13,639,135
Amount at credit ..	547,412	Due on loan contracts ..	39,995
Arrears due ..	264		
(b) Unexpended balances ..	361,825		
<b>PROPERTY—</b>			
Buildings, markets, tramways, etc. ..	5,381,110		
Waterworks ..	417,710		
Gasworks ..	255,740		
Electric light works ..	2,596,270		
Plant and machinery ..	667,540		
Other assets ..	200,670		
Total ..	13,605,371	Total ..	15,891,260

3. *Queensland.*—(i) *General.* The whole of the State (except islands along the coast and 606 square miles in area) is incorporated into cities, towns, and shires under the Local Authorities Act of 1902 and its amendments.

(ii) *Municipalities. (a) Summary.* The following table gives particulars of the area, population, number of inhabited dwellings, and assets and liabilities of cities and towns and of shires for the year 1931 :—

**MUNICIPALITIES, QUEENSLAND.—SUMMARY.**

Year.	No.	Area.	Popula- tion.	Number of Inhabited Dwellings.	Rateable Value.	Assets.	Liabilities.	
							Govern- ment Loans.	Total.
<b>CITIES AND TOWNS.</b>								
1931(a) ..	24	sq. miles. 794	No. (b)	No. 111,411	£ 30,889,058	£ 20,770,285	£ 6,505,575	£ 24,421,350
<b>SHIRES.</b>								
1931(a) ..	122	669,047	(b)	92,100	48,460,525	1,963,163	1,941,599	2,772,270

(a) Figures relating to assets and liabilities include waterworks, sewerage works, electric light works, and railways and tramways controlled by local authorities.

(b) Estimated population of Queensland, 963,711 persons.

(b) *Revenue and Expenditure.* The revenue and expenditure (including loan moneys) of cities and towns, and of shires for the year 1931 are given hereunder :—

**MUNICIPALITIES, QUEENSLAND.—REVENUE AND EXPENDITURE.**

Year.	Revenue.			Expenditure.			
	Rates.	Govern- ment Loans and Subsidies. (a)	Total.	Public Works and Services. (b)	Govern- ment Loan Redemp- tion.	Office Expenses and Salaries.	Total.
<b>CITIES AND TOWNS.</b>							
1931 ..	£ 1,510,490	£ 337,279	£ 4,649,070	£ 2,393,449	£ 111,547	£ 227,497	£ 4,641,220
<b>SHIRES.</b>							
1931 ..	932,965	356,289	1,561,040	1,011,068	61,592	124,950	1,557,386

(a) Includes Main Road Receipts.

(b) Includes Expenditure on Main Roads.

The figures in the foregoing tables cover all the activities of the local authorities throughout Queensland such as :—Road repairs, street lighting, etc. ; waterworks, electric light, and railways and tramways controlled by local bodies.

4. *South Australia.*—(i) *General.* The settled portion of South Australia is incorporated, being under municipal corporations in the larger cities and towns, and district councils in the agricultural areas. These bodies, with the exception of the Corporation of Adelaide, are allocated grants by the Commissioner of Highways for the maintenance and construction of main and other roads.

(ii) *Local Authorities. (a) Summary.* The number of corporations and district councils was reduced by amalgamations, etc., in 1932, to 172, of which 11 corporations and 10 district councils are in the metropolitan area, and 21 corporations and 130 district councils in outside areas. According to the latest available information there are about



1,060 miles of roads in use for general traffic under the control of corporations, and about 49,066 miles under the control of district councils, and of these totals, 19 miles are wood-blocked, 165 miles are bitumen and concrete and 14,241 miles are tar-paved, metalled or gravelled. The following table gives the area, population, number of occupied dwellings, capital and assessment values and outstanding loans for corporations and district councils separately for the year 1931 :—

**LOCAL AUTHORITIES, SOUTH AUSTRALIA.—SUMMARY.**

Year.	Area.	Estimated Population.	Occupied Dwellings.	Capital Value.	Assessment Value.	Outstanding Loans.
<b>MUNICIPAL CORPORATIONS.</b>						
1931	Acres. 66,063	No. 245,530	No. 56,031	£ 74,011,950	£ 3,719,433	£ 787,214

**DISTRICT COUNCILS.**

1931	..	33,595,527	323,841	76,109	113,810,127	5,635,976	(a) 416,417
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(a) Includes advances through District Councils to settlers for vermin-proof fencing, etc., amounting to £287,741.

(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of corporations and district councils for the year 1931, showing in separate columns the receipts and expenditure on main roads. The figures differ slightly from those shown in the Summary Table in § 4 hereinafter, which exclude transfers between the Government Grants and General Accounts. The financial year of municipal corporations ends on the 30th November and that of district councils on the 30th June.

**LOCAL AUTHORITIES, SOUTH AUSTRALIA.—REVENUE AND EXPENDITURE.**

Year.	Local Government (exclusive of Government Grants Account).						Government Grants Account (Main Roads).		
	Revenue (including Loans).			Expenditure.			Revenue.	Expenditure.	
	Rates.	Subsidies.	Total.	Roads.	Other Public Works and Services.	Total.			
<b>MUNICIPAL CORPORATIONS.</b>									
1931	£ 455,008	£ 28,168	£ 657,075	£ 233,851	£ 234,090	£ 691,838	£ 6,764	£ 6,758	
<b>DISTRICT COUNCILS.</b>									
1931	..	380,916	39,875	517,007	241,208	96,881	489,922	141,015	137,976

5. *Western Australia.*—(i) *General.* In this State there are three forms of local authorities, namely :—(a) municipalities, (b) district road boards, and (c) local boards of health, the two former covering the whole of the State. Local boards of health are of three descriptions, (a) municipal, the members being the same as those of the municipal council of the municipality in which each is situated, (b) those under the control of road

boards, and (c) those not under the control of road boards or municipalities. Several of the latter two are inactive. The financial year of municipalities and municipal boards of health terminates on the 31st October, and that of road boards and other local boards of health on the 30th June.

(ii) *Municipalities.* (a) *Summary.* The following table gives various particulars regarding municipalities for the year 1932 :—

**MUNICIPALITIES, WESTERN AUSTRALIA.—SUMMARY.**

Year ended 31st Oct.—	Municipalities.	Area.	Population. (a)	Dwelling Houses.	Valuation of Rateable Property.		Length of Roads and Streets.
					Capital Value.	Annual Value.	
1932 ..	No. 21	Acres. 59,517	No. 190,000	No. 39,683	£ 45,724,754	£ 2,359,480	Miles. (b) 780

(a) Approximate. (b) Exclusive of cleared roads.

(b) *Revenue and Expenditure.* Revenue and expenditure of municipalities during the year 1932 are given hereunder :—

**MUNICIPALITIES, WESTERN AUSTRALIA.—REVENUE AND EXPENDITURE.**

Year ended 31st October—	Revenue.				Expenditure.			
	From Rates.	From Govt. Grants.	From other Sources.	Total.	Works and Improvements.	Interest and other Charges on Loans.	Other Expenses.	Total.
1932 ..	£ 288,187	£ 76,441	£ 804,067	£ 1,168,695	£ 256,895	£ 287,340	£ 637,229	£ 1,181,464

(c) *Assets and Liabilities.* The table below shows the assets and liabilities of municipalities at the 31st October in the financial year 1932 :—

**MUNICIPALITIES, WESTERN AUSTRALIA.—ASSETS AND LIABILITIES.**

31st October—	Assets.				Liabilities.	
	Balance in Hand.	Value of Property.	Accrued Sinking Funds.	Total.	Outstanding Debentures and Bonds.	Total.
1932 .. ..	£ 112,231	£ 2,863,273	£ 513,449	£ 3,756,958	£ 2,589,012	£ 2,813,462

(iii) *District Road Boards.* (a) *Summary.* The method of valuation is not identical in the case of all District Road Boards, in some the assessment being based on the unimproved capital values and in others on the annual values. The unimproved capital value given in the following table is, therefore, only approximate. The population at the date of the census of 4th April, 1921, was 160,970, and the number of dwellings 41,662.

On the 30th June, 1932, the population was estimated at 233,000, and the number of dwelling-houses at 57,455.

## DISTRICT ROAD BOARDS, WESTERN AUSTRALIA.—SUMMARY.

Year ended 30th June—	Number of Road Districts.	Area.	Unimproved Capital Value (Approximate).	Length of Roads in Existence.	Assets.	Liabilities.	Out-standing Loans.
1932 ..	No. 126	sq. miles. 975,828	£ 23,282,422a	miles. 21,526b	£ 960,564	£ 844,646	£ 683,092

(a) Rated partly on unimproved capital value and partly on annual value.  
roads, not formed, used for general traffic.

(b) Exclusive of

(b) *Revenue and Expenditure.* The revenue and expenditure of district road boards are shown in the following table for the year 1932:—

## DISTRICT ROAD BOARDS, WESTERN AUSTRALIA.—REVENUE AND EXPENDITURE.

Year ended 30th June—	Revenue.				Expenditure.			
	Rates.	Government Grants.	Other.	Total.	Adminis-tration.	Works.	Other.	Total.
1932 ..	£ 236,345	£ 182,914	£ 257,908	£ 677,167	£ 59,827	£ 387,140	£ 204,297	£ 651,264

(iv) *Local Boards of Health.* (a) *General.* On the 31st October, 1932, there were 21 local boards of health within municipalities, and on the 30th June, 1932, 93 under control of road boards, and 12 extra-municipal boards. Of the extra-municipal boards 6 were inactive during the year.

(b) *Finances.* The appended table shows the number of boards, their revenue and expenditure, and the assets and liabilities of such as were active during 1932. The financial year of municipal boards ends on the 31st October, and that of other boards on the 30th June.

## LOCAL BOARDS OF HEALTH, WESTERN AUSTRALIA.—FINANCES.

Year.	Number.	Revenue.			Expenditure.		Assets.	Liabilities.
		Rates.	Sanitary Charges and Rubbish Fees.	Total.	Sanitary and Rubbish Service.	Total.		
1932 ..	126	£ 66,338	£ 64,853	£ 145,641	£ 87,328	£ 144,484	£ 128,074	£ 21,576

6. *Tasmania.*—(i) *General.* The whole State, with the exception of the cities of Hobart and Launceston, which were incorporated under separate Acts, is divided into municipal districts.

(ii) *Municipalities.* (a) *Summary.* The following table gives the number of municipalities, valuations, outstanding loans and length of roads for the year 1931–32. The latest available figure for inhabited dwellings is for the year 1932, when the number was 45,809.

## MUNICIPALITIES, TASMANIA.—SUMMARY.

Year.	Number of Municipalities.	Valuations.			Outstanding Loans.	Length of Roads.	
		Annual Value.	Unimproved Value.	Total Capital Value.			
<b>HOBART AND LAUNCESTON.</b>							
1931-32	..	No. 2	£ 1,191,254	£ 7,051,452	£ 18,985,365	£ 2,650,074	Miles. 188
<b>COUNTRY MUNICIPALITIES.</b>							
1931-32	..	47	1,539,901	15,810,847	32,548,795	516,182	12,251

(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of all municipalities for the year 1931-32:—

## MUNICIPALITIES, TASMANIA.—REVENUE AND EXPENDITURE.

Year.	Revenue.			Expenditure.				
	Rates.	Government Grants.	Total.	Adminis- tration.	Works and Services.	Interest and Sinking Fund.	Total.	
<b>HOBART AND LAUNCESTON.</b>								
1931-32	..	£ 276,935	£ 600	£ 585,726 <sup>a</sup>	£ 47,537	£ 339,081 <sup>a</sup>	£ 194,196	£ 581,246 <sup>a</sup>
<b>COUNTRY MUNICIPALITIES.</b>								
1931-32	..	171,219	7,678	264,915 <sup>a</sup>	36,012	172,357 <sup>a</sup>	39,561	267,213 <sup>a</sup>

(a) Excluding loans.

7. *Basis for Municipal Rating and Limits for Rates.*—These matters were dealt with at some length in Official Year Book, No. 17, pp. 124-25.

## § 4. Summary of Local Government Finance.

1. *General.*—In the preceding parts of this chapter certain particulars have been given regarding local authorities in each individual State. In this paragraph, comparative figures are given for each State regarding the financial operations of the local governing bodies referred to in § 3. The particulars in the next two tables refer to financial years as follows:—New South Wales: calendar year 1931. Victoria: 30th September, 1931, except Melbourne, 31st December, and Geelong, 31st August, 1931. Queensland: calendar year 1931. South Australia: Corporations, 30th November, and district councils, 30th June, 1931. Western Australia: Municipalities, 31st October, 1932, district road boards, 30th June, 1932. Tasmania: 30th June, 1932.

2. Number, Revenue, Expenditure, and Valuation of Local Authorities.—The subjoined table shows the number, revenue, and expenditure, including loan money, and valuation of local authorities in each State and in Australia during the years indicated above. It should be noted that, excepting in Queensland and Tasmania, the metropolitan water supply systems are not under municipal control; the particulars given of revenue and expenditure for the four States other than Queensland and Tasmania do not, therefore, include revenue and expenditure on account of these systems.

## LOCAL AUTHORITIES (a) IN EACH STATE.—FINANCIAL SUMMARY, 1931.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.(b)	Tasmania.	Total.
No. of local authorities(a)	319	196	146	196	147	49	1,053

## RECEIPTS.

	£	£	£	£	£	£	£
Rates—							
General ..	4,775,338	3,578,517	{ 1,844,598 598,857 }	835,924	{ 338,780 208,524 }	159,741	} 14,108,034
Other ..	1,479,342						
Government grants, etc. ..	1,180,608	202,630	490,554	198,671	272,331	8,278	2,353,072
Loans and other sources ..	(c) 5,405,008	3,294,022	3,276,101	271,229	1,164,546	561,324	(e) 13,972,230
Total ..	(c) 12,840,296	7,075,169	6,210,110	1,305,824	1,984,181	1,017,756	(e) 30,433,336

## EXPENDITURE.

Works, services, etc. ..	9,600,295	3,863,407	3,404,517	950,089	743,882	678,553	19,240,743
Interest on loans and overdrafts	999,777	845,770	1,164,026	69,327	200,294	} 233,757	4,779,689
Redemptions, sinking funds, etc. ..	122,210	469,507	450,980	59,068	164,973		
Administration	616,594	425,228	352,447	164,018	154,835		
Other ..	1,110,894	1,650,560	826,636	94,198	713,199	83,549	1,796,671
						19,715	4,415,202
Total ..	(d) 12,449,770	7,254,472	6,198,606	1,336,700	1,977,183	1,015,574	(e) 30,232,305

## VALUATIONS.

Capital value of property ..	(f) 378,736,815	629,896,344	179,349,583	187,822,077	(j) 48,541,463	51,534,160	(h)
Annual value of property ..	(g) 44,220,398	33,363,640	(h)	9,355,409	(i) 2,580,690	2,731,155	(h)

(a) Including particulars for all areas controlled by local governing bodies responsible for the construction and maintenance of roads and streets, such areas being variously known in the several States as cities, towns, boroughs, shires, municipalities, and road board districts, etc.

(b) Exclusive of Local Boards of Health.

(c) Exclusive of loan receipts, particulars of which are not available. Loans raised during the year amounted to £290,240.

(d) Exclusive of the total loan expenditure of the City of Sydney. The expenditure included for other local authorities relates to "revenue expenditure" and includes loan moneys expended on road construction and other works not resulting in realizable assets or assets to be used over a period of time in fulfilling ordinary services. The amount of "capital expenditure" from both revenue and loans is not available. The addition of the following amount to the above total of £12,449,770 should, however, give a closer approximation of total expenditure comparable with the other States:—For City of Sydney, £679,127 (expenditure from loans), but for the other local authorities particulars are not available.

(e) See footnotes (c) and (d) relating to New South Wales.

(f) Unimproved capital value. The improved value for shires is not available; for municipalities it is £658,137,960.

(g) Assessed annual value, excluding Shires.

(h) Not available.

(i) Rateable value.

(j) Municipalities only. District Road Boards are rated on unimproved capital value and/or annual value, the total of the unimproved capital value being £26,643,138: the total annual value is not available.

3. Local Government Loans, 1931.—The following table shows the amount of loans raised by local authorities during the year 1931, of loans current at the end of that year, the liability on account of interest and sinking fund, and the loans redeemed during 1931 :—

## LOCAL AUTHORITIES.—LOANS, 1931.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Loans from General Government—							
Raised during year ..	..	10,579	203,014	9,749	8,250	8,750	240,342
Current at end of year ..	..	853,534	8,447,174	378,190	327,725	455,023	10,461,646
Loans from other Sources—							
Raised during year ..	290,240	413,911	254,689	1,450	74,870	158,365	1,193,525
Current at end of year ..	34,843,661	12,785,601	14,974,779	825,441	3,035,817	2,711,233	69,176,532
Total—							
Raised during year ..	290,240	424,490	457,703	11,199	83,120	167,115	1,433,867
Current at end of year ..	34,843,661	13,639,135	23,421,953	1,203,031	3,303,542	3,166,256	79,638,178
Current Loans, exclusive of those obtained from General Government, raised within Australia ..	25,513,028	12,785,601	5,539,559	825,441	2,481,617	1,523,737	48,668,983
Annual Liability on account of Interest ..	1,742,308	772,096	1,222,118	67,288	194,434	169,876	4,168,120
Total Sinking Fund at end of year ..	3,196,208	547,676	1,585,838	38,882	565,662	481,349	6,415,615
Amount of Loans Redeemed during year ..	(a)	(a)	286,430	46,273	147,505	95,197	(a)

(a) Not available.

## § 5. Water Supply, Sewerage and Drainage.

1. New South Wales.—(i) *General.* In Sydney and its suburbs the water supply and sewerage systems are controlled by the Metropolitan Water, Sewerage and Drainage Board, and in Newcastle and its suburbs by the Hunter District Water Supply and Sewerage Board. In country districts, both waterworks and sewerage works are constructed by the Public Works Department, and, when completed, handed over to the municipalities affected, by which the cost must be repaid.

(ii) *Metropolitan Waterworks.* (a) *General.* Financial conditions necessitated a stoppage of all loan works in March, 1931, but prior to that date good progress had been made on the construction of the two additional storage reservoirs on the Nepean and Woronora Rivers. During the year ended 30th June, 1932, practically no construction work was done, although £192,764 was expended on Unemployment Relief Works. The maximum day's consumption in the metropolitan area was 142,736,000 gallons. The length of mains in operation is now 4,196 miles.

(b) *Water Supplied, etc.* The following table gives the number of houses, the estimated population supplied, and other details for the year ended 30th June, 1932 :—

## WATERWORKS, SYDNEY.—WATER SUPPLIED.

Year ended 30th June—	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Supply for the Year.	Average Daily Supply.		Mains Laid.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1932 ..	311,246	1,556,230	87,962	32,194,000	282	56.53	9

(c) *Finances.* The following statement shows the revenue and expenditure on account of the services of waterworks, sewerage and drainage during the year 1931-32 :—  
**WATERWORKS, SEWERAGE, AND DRAINAGE, SYDNEY.**

Item.	Revenue.	Working Expenses, Sinking Fund Contribution, Renewals, and Exchange. (a) (b)	Capital Indebtedness.	Percentage of Working Expenses and Sinking Fund Contribution, etc. on Revenue.	Percentage of Revenue on Capital Cost.	Interest.	Surplus or Deficit.
	£	£	£	%	%	£	£
Water ..	1,735,808	612,443	23,534,241	35.28	7.38	1,105,745	+ 17,620
Sewerage	1,000,444	358,059	14,613,152	35.79	6.85	669,338	- 26,953
Drainage	60,501	17,491	681,876	28.91	8.87	32,670	+ 10,340
<b>Total</b>	<b>2,796,753</b>	<b>987,993</b>	<b>38,829,269</b>	<b>35.33</b>	<b>7.20</b>	<b>1,807,753</b>	<b>+ 1,007</b>

(a) Includes payments to State Debt Commissioners in reduction of capital indebtedness as follows :— Water, £60,456; Sewerage, £40,905; and Drainage, £1,938.

(b) Includes exchange as follows :—Water, £151,825; Sewerage, £105,642; and Drainage, £5,026.

(iii) *Metropolitan Sewerage and Drainage Systems.* (a) *General.* In addition to the usual progress made in connecting additional houses, 12 miles of new sewers were laid, the total length at 30th June, 1932, being 1,883 miles. The quantity of sewage pumped was 5,440 million gallons.

(b) *Houses Drained, Population Served, Length of Sewers, etc.* Particulars as at 30th June, 1932, are given hereunder :—

**SEWERAGE AND DRAINAGE SYSTEMS, SYDNEY.—PARTICULARS OF SERVICES.**

Year ended 30th June—	Number of Houses Drained.	Estimated Population Served.	Total Length of Sewers.	Total Length of Stormwater Drains.
	No.	No.	Miles.	Miles.
1932 .. .. .	207,590	1,037,950	1,883.05	75.90

(iv) *Newcastle Water Supply.* (a) *General.* The supply is drawn from the Chichester Reservoir, and is piped about 50 miles to Newcastle. The storage reservoir capacity is 5,000 million gallons. In addition to supplying Newcastle, water is reticulated in Maitland, 20 miles distant from Newcastle, and the Cessnock coalmining field, as well as areas adjoining these centres. The supply also extends to the farming areas of Miller's Forest and the lakeside resorts of Belmont and Toronto.

Water can also be supplied from the Hunter River at Maitland, if required.

Reservoirs distributed throughout the Water Supply District number 36, with a total storage capacity of 60,480,510 gallons.

The net addition to lengths of water-mains laid was 2 miles, bringing the total length of mains to 862 miles.

(b) *Particulars of Services.* The following table supplies details for the year ended 30th June, 1932 :—

**NEWCASTLE WATER SUPPLY.—SUMMARY.**

Year ended 30th June—	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Quantity Supplied for the Year.	Average Daily Supply.		Mains Laid.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 gallons.	1,000 gallons.	Gallons.	Gallons.	Miles.
1932 ..	42,778	213,890	7,823	2,863,463	183	36.57	2

(c) *Finances.* The next table gives the revenue, working expenses, capital debt, and net profit for the year ended 30th June, 1932 :—

## NEWCASTLE WATER SUPPLY.—FINANCES.

Year ended 30th June—	Revenue.	Management, Working Expenses, and Sinking Fund.	Capital Debt.	Percentage of Management, Working Expenses, and Sinking Fund on Revenue.	Percentage of Revenue on Capital Debt.	Interest on Capital Debt.	Deficiency.
	£	£	£	%	%	£	£
1932 ..	220,017	78,318	2,862,557	35.60	7.69	(a) 163,048	21,349

(a) Includes exchange £25,916.

(v) *Newcastle Sewerage Works.* (a) *General.* The sewerage works for Newcastle and suburbs as originally designed have been completed by the Department of Public Works and vested in the Board.

The amplification, extension, and improvement of such sewerage works was authorized by "The Newcastle and Suburbs Sewerage Amplification Act 1928" passed on the 21st May, 1928. The estimated cost of the work, which is still under construction, is £761,625. The Cessnock sewerage works authorized by the "Cessnock Sewerage Act 1931", at a revised estimate of cost of £201,845 are almost completed.

The Stockton sewerage work was authorized by the "Stockton Sewerage Act 1932" which was assented to on 21st December, 1932. The estimated cost of the scheme, which is now under construction, is £115,000. Schemes for the sewerage of West Maitland are being investigated.

The stormwater drainage of Newcastle and adjoining areas is divided into two catchment areas, viz., the works in the Cottage Creek Stormwater Area, estimated to cost £200,000, and the works in the Throsby Creek Stormwater Area, estimated to cost £660,000.

(b) *Sewerage Connections and Length of Sewers.* During the year ended 30th June, 1932, the number of properties connected with sewers was 55, making a total of 21,526. New sewers of a length of 2 miles were constructed by the Board, bringing the total length of sewers under the Board's control to 202 miles.

(c) *Finances.* Particulars in regard to chief items for the year 1931-32 are given hereunder :—

## NEWCASTLE SEWERAGE.—FINANCES.

Year ended 30th June—	Revenue.	Management, Working Expenses and Sinking Fund.	Capital Debt.	Percentage of Management, Working Expenses and Sinking Fund on Revenue.	Percentage of Revenue on Capital Debt.	Interest on Capital Debt.	Surplus.
	£	£	£	%	%	£	£
1932 ..	86,607	41,414	(a) 2,233,177	47.82	3.88	(b) 33,304	11,889

(a) Includes £779,403 expenditure on stormwater drainage works not yet transferred to and vested in the Board.

(b) Includes exchange £246.

(vi) *Water Supply and Sewerage in Country Towns\*.* (a) *General.* Under the *Local Government Act 1919*, the Public Works Department may, upon application by any municipal or shire council, construct, out of moneys voted therefor by Parliament, waterworks or sewerage works, and when completed transfer the control thereof to the council. In each case the cost, with interest, is repayable by instalments spread over a period corresponding to the probable life of the work.

\* Excluding the area of operations of the Hunter District Water Supply and Sewerage Board (Newcastle).



(b) *Waterworks, Sewerage, and Stormwater Drainage Works.* At the 30th June, 1932, public water supplies constructed at a capital cost of £4,183,923, were in operation in 87 towns outside the Metropolitan and Hunter River districts. Fourteen towns were seweraged and 16 towns had stormwater channels constructed by the Public Works Department. The capital cost of the sewerage schemes and stormwater channels was £1,210,569. The principal water supply works completed during the year were those at Werris Creek, Tenterfeld and Grenfell.

Two water supply systems, viz., Broken Hill and Junee, are administered by the Public Works Department under special Acts. These services entailed capital expenditure amounting respectively, at 31st December, 1931, to £481,795 and £220,308.

2. *Victoria.*—(i) *A. Melbourne and Metropolitan Board of Works.* (a) *General.* All land within 13 miles of the Post Office at the corner of Bourke and Elizabeth-streets, Melbourne, together with the remaining areas of the City of Mordialloc and the Shire of Moorabbin and a further portion of the Shire of Dandenong, but excluding 11 square miles in the Shires of Keilor and Braybrook under the control of the Keilor and St. Albans Waterworks Trust, is included within the metropolitan area for water supply, sewerage, main drainage and river improvement purposes. This territory covers 434 square miles of land area, and in 1932 embraced 25 cities, 1 shire, and parts of 12 other shires, or a total of 38 municipalities or portions thereof. In addition, the Board supplies water to certain municipalities outside the metropolitan area.

The Board's liability on the 30th June, 1932, for loans raised was £24,944,984. The Board is still empowered to borrow £194,950 before reaching the limit of its borrowing powers.

(b) *Revenue and Expenditure.* The ordinary receipts and expenditure for the year 1931-32 were £1,773,067 and £1,826,216 respectively, and the loan receipts and expenditure, £2,608,112 and £1,890,777 (including Loan Redemption £1,554,396) respectively.

*B. Melbourne Water Supply.* (a) *Quantity of Water, Number of Houses, and Population Supplied.* The following table gives particulars of services for the year 1931-32. The rate levied was sixpence in the pound on the net annual value of the property served.

WATER SUPPLY, MELBOURNE.—PARTICULARS OF SERVICES.

Year ended 30th June—	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Water Consumption for the Year.	Average Daily Consumption.		Length of Mains, Reticulation, etc.
					Per House.	Per Head of Estimated Population.	
1932 ..	No. 254,758	No. 1,128,578	1,000 Gallons. 62,919	1,000 Gallons. 23,028,254	Gallons. 246.97	Gallons. 55.75	Miles. 2,753

(b) *Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The total cost of construction, revenue, working expenses (exclusive of renewals), percentage of working expenses on revenue, interest and surplus for the year ended 30th June, 1932, are given below. The total capital cost to that date was £11,026,658.

WATER SUPPLY, MELBOURNE.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses. (a)	Percentage of Working Expenses on Revenue.	Interest. (b)	Surplus.
1932 .. ..	£ 133,798	£ 772,271	£ 120,462	% 15.59	£ 545,031	£ 106,778

(a) Exclusive of renewals.

(b) Includes interest on renewals and sinking funds.

C. *Melbourne Sewerage.* (a) *Number of Houses Connected, etc.* Particulars of services for the year 1931-32 are given below. The rate levied was elevenpence in the pound on the net annual value of the property served.

## SEWERAGE, MELBOURNE.—PARTICULARS OF SERVICES.

Year ended 30th June—	Number of Houses for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1932 ..	236,640	1,048,315	43,245	15,827,650	182.7	41.2	2,414

(b) *Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The total cost of construction, revenue, working expenses (exclusive of renewals), percentage of working expenses on revenue, interest and surplus for the year ended 30th June, 1932, are given below. The total capital cost to that date was £12,731,484.

## SEWERAGE, MELBOURNE.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses. (a)	Percentage of Working Expenses on Revenue.	Interest. (b)	Surplus.
	£	£	£	%	£	£
1932 ..	135,503	875,665	142,359	16.26	681,378	51,928

(a) Exclusive of renewals.

(b) Includes interest on renewals and sinking funds.

(c) *Metropolitan Sewage Farm.* The total area of the farm at the 30th June, 1932, was 22,634 acres. The following table gives details in connexion therewith for the year 1931-32. The total capital cost to the 30th June, 1932, was £1,141,214.

## METROPOLITAN SEWAGE FARM.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses. (a)	Interest.	Net Cost of Sewage Purification.	Trading Profit.
	£	£	£	£	£	£
1932 ..	18,887	18,988	36,756	58,209	75,977	8,043

(a) Exclusive of renewals.

(d) *Disposal of Night-soil from Unsewered Premises.* The total number of pans cleaned by the Board at its depots at Brooklyn, Campbellfield, and Moorabbin, where the night-soil was disposed of by burial, was 896,597, for the year 1931-32.

D. Melbourne Drainage and Rivers—Capital Cost; Revenue, Working Expenses Interest and Surplus. The following table gives details in connexion therewith for the year ended 30th June, 1932. The total capital cost to that date was £1,063,068.

## DRAINAGE AND RIVERS, MELBOURNE.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses. (a)	Percentage of Working Expenses on Revenue.	Interest. (b)	Surplus.
1932 .. ..	£ 31,081	£ 86,016	£ 16,735	% 19.46	£ 59,545	£ 9,736

(a) Exclusive of renewals.

(b) Includes interest on renewals and sinking funds.

(ii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust, constituted in 1908, consists of five commissioners. The amount of loan money which may be raised is limited to £725,000 for water supply undertaking, £710,000 for sewerage undertaking, and £270,000 for sewerage installation to properties under the deferred payment system. The population supplied is about 45,387.

(b) *Water Supply.* The catchment area is about 16,000 acres. The storage capacity of all the reservoirs is 2,738,119,800 gallons. In addition, the State Rivers and Water Supply Commission has made available a supplementary supply of a minimum quantity of 500 million gallons of water per annum from the upper reaches of the river Barwon. There are 274 miles of reticulation mains within the city of Geelong and its suburbs. The total expenditure on waterworks to the 30th June, 1932, was £702,619, and the revenue for the year 1931-32 was £54,751; the sinking fund for redemption of loans amounted to £50,697.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 140 miles of reticulation mains have already been laid. The drainage area is 9,489 acres, and the number of buildings within the drainage area is 11,400, and within the sewered areas 11,110, while 11,077 buildings have been connected with the sewers. The total expenditure to 30th June, 1932 on sewerage works was £641,921, and on the cost of sewerage installations under deferred payment conditions £256,116, of which £37,528 is outstanding. The revenue amounted to £42,108. The sinking fund for redemption of loans amounted to £49,732.

(iii) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (a) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on the 30th November, 1920. The members of the Water Commission are the Sewerage Authority. The Commissioners number seven; three (one of whom is chairman) being appointed by the Government, and four being elected by the Council of the City of Ballarat.

(b) *Water Supply.* The Water Supply District embraces an area of about 27 square miles, containing a population of about 42,000. The total storage capacity of the six reservoirs is 2,215,558,000 gallons.

The capital cost of construction of the waterworks is £651,681. The liabilities are loans due to the Government amounting to £299,210 as at 31st December, 1932. The revenue for the year was £32,877.

(c) *Sewerage.* The scheme as designed provides for a population of 90,000 persons. The capital cost of construction to 31st December, 1932, was £340,427. The method of sewage disposal is by sedimentation, oxidation, and sludge digestion. Fifty-eight sewered areas have been declared as at 1st January, 1933, comprising 7,263 tenements.

The scheme is being financed by debenture issue loans from various financial institutions, £384,090 having been provided up to 31st December, 1932, for constructional works, and £148,260 for house connexions.

(iv) *Bendigo Sewerage Authority.* The members of the Bendigo City Council constitute this Authority. The sewerage district comprises the populated area of the city of Bendigo. The works when completed are estimated to cost £450,000. Expenditure to end of December, 1932, was £326,262 for sewerage scheme and £175,234 for house connexions.

(v) *Water Supply in Country Towns and Districts.* Most of the country waterworks are controlled by the State Rivers and Water Supply Commission, but in some instances the control is by waterworks trusts or by municipal corporations.

The following table gives particulars regarding waterworks under the control of trusts and municipal corporations for the year 1932 :—

#### COUNTRY WATERWORKS, VICTORIA.—FINANCES.

Year.	Under Waterworks Trusts.				Under Municipal Corporations.			
	Number of Trusts.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.	Number of Corporations.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.
1932 ..	No. 105	£ 1,751,523	£ 1,361,128	£ 1,853	No. 28	£ 864,979	£ 569,148	£ 1,030

3. Queensland.—(i) *Water Supply and Sewerage Department, Brisbane City Council.*  
(a) *General.* The whole of the water supply in the metropolitan area and the bulk supply to the City of Ipswich is filtered.

The available storage in the Brisbane River is 500 million gallons, the catchment area being approximately 4,000 square miles. In Lake Manchester the storage capacity is 7,000 million gallons, and the catchment area 28.5 square miles. The capacity of Enoggera and Gold Creek Reservoirs is 1,000 million gallons and 407 million gallons respectively, and the catchment area 12.8 and 3.8 square miles respectively.

The total capacity of the service reservoirs on Tarragindi Hill, Eildon Hill, Bartley's Hill, Highgate Hill, Roles Hill, Wickham Terrace, and Paddington (elevated tank) is approximately 27,356,000 gallons.

(b) *Waterworks. Summary.* The following table gives a summary of operations for the year ended 30th June, 1932 :—

#### WATERWORKS, BRISBANE.—SUMMARY.

Year ended 30th June—	Length of Reticulation Mains.	Number of Tenements Connected. (a)	Estimated Population Supplied.	Quantity Supplied.	Average Daily Supply.	Average Daily Supply per Head of Estimated Population.
1932 .. ..	Miles. 809 $\frac{3}{4}$	No. 64,008	No. 330,281	1,000 Gallons. 4,836,807	Gallons. 12,828,270	Gallons. 40.18

(a) Exclusive of Ipswich, which is a bulk supply.

The total length of the trunk mains is 203 $\frac{1}{4}$  miles.

(c) *Sewerage.* At the 30th June, 1932, 14,255 premises were connected to the Council's sewerage system, the estimated population served being 71,275 persons. The total length of sewers in operation is 368.1 miles, consisting of 215.1 miles of sewers within premises, and 153 miles of main and reticulation sewers.

(d) *Waterworks and Sewerage Works Finances.* The subjoined table gives particulars regarding finance during the year ended 30th June, 1932.

WATER AND SEWERAGE WORKS, BRISBANE.—FINANCE.

Year ended 30th June—	Capital Cost.	Net Revenue from Rates.	Management and Working Expenses.	New Works Construction.	Interest and Redemption of Loans, including Sinking Fund.
1932 .. ..	£ 8,035,873	£ 629,565	£ 143,505	£ 22,521	(a) £ 447,645

(a) Exclusive of the sum of £68,080 paid as exchange.

(ii) *Country Towns Water Supply.* In addition to the city of Brisbane, there were at the end of the year 1931, forty-one country towns in Queensland provided with water supply systems constructed by municipalities chiefly from Government loans. The subjoined statement gives particulars of all water supply systems, exclusive of Brisbane, for the year 1931 :—

COUNTRY WATER SUPPLY SYSTEMS.—QUEENSLAND.

*Cost of Construction to 31st December, 1931—£2,319,486.*

<i>Receipts.</i>			<i>£</i>	<i>Expenditure.</i>			<i>£</i>
Rates and sales of water ..		233,798		Office and salaries ..		17,818	
Government and other loans ..		35,520		Construction ..		60,574	
Other .. ..		23,107		Maintenance ..		103,162	
				Interest and redemption ..		105,429	
				Other expenses ..		14,967	
<b>Total .. ..</b>		<b>292,425</b>		<b>Total .. ..</b>		<b>301,950</b>	
<b>Assets .. ..</b>		<b>1,875,879</b>		<b>Liabilities .. ..</b>		<b>1,598,453</b>	

4. *South Australia.*—(i) *General.* The water supply and sewerage systems in this State are constructed and maintained by the Public Works Department.

(ii) *Adelaide Waterworks.* (a) *Summary.* The following table gives particulars for the year 1931-32, the figures for consumption being recorded by gaugings taken at the reservoirs and including evaporation and absorption. There are 52,607 meters in the Adelaide District.

ADELAIDE WATERWORKS.—SUMMARY.

Year ended 30th June—	Number of Assessments.	Annual Value.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
1932 .. ..	No. 130,323	£ 5,356,905	Acres. 115,939	Million Gallons. 7,774	Miles. 1,292	1,000 Gallons. 7,473,179

(b) *Finances.* Particulars for the year 1931-32 are given below :—

**ADELAIDE WATERWORKS.—FINANCES.**

Year ended 30th June—	Capital Cost.	Revenue.		Expenses.			Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Engineering Branch.	Revenue Branch.	Total.	
1932 ..	£ 3,729,965	£ 376,314	£ 425,834	£ 78,188	£ 10,813	£ 89,001	% 9.03

(iii) *Adelaide Sewerage.* Particulars for the year 1931-32 are given hereunder :—

**ADELAIDE SEWERAGE.—SUMMARY.**

Year ended 30th June—	Length of Sewers.	Number of Con-nexions.	Capital Cost of Revenue-Producing Works.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates, etc.	Total.	Maintenance, etc.	Total.	
1932 ..	Miles. 550	No. 56,401	£ 1,624,196	£ 187,573	£ 192,457	£ 24,510	£ 31,719	% 9.90

(iv) *Country Towns Water Supply.* (a) *Summary.* The chief items of information regarding these undertakings are set forth in the table below for the year 1931-32. There are 31,701 meters in country districts.

**COUNTRY TOWNS WATERWORKS, SOUTH AUSTRALIA.—SUMMARY.**

Year ended 30th June—	Number of Assessments.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
1932 ..	No. 49,687	Acres. 11,837,241	Million Gallons. 9,110	Miles. 4,754	1,000 Gallons. 1,334,869

(b) *Finances.* The next table gives financial information for the year 1931-32 :—

**COUNTRY TOWNS WATERWORKS, SOUTH AUSTRALIA.—FINANCES.**

Year ended 30th June—	Capital Cost.	Revenue.		Working Expenses.			Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Engineering Branch.	Revenue Branch.	Total.	
1932 ..	£ 9,210,104	£ 186,893	£ 214,712	£ 98,697	£ 7,720	£ 106,418	% 1.18

(v) *Other Sewerage Systems.* Information in summarized form is given below regarding the two suburban sewerage systems, viz., the Glenelg system and the Port Adelaide and Semaphore system, for the year 1931-32 :—

**SUBURBAN SEWERAGE SYSTEMS, SOUTH AUSTRALIA.—SUMMARY.**

Year ended 30th June—	Length of Sewers.	Number of Con- nections.	Capital Cost.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates.	Total.	Mainten- ance.	Total.	
1932 ..	Miles. 203	No. 11,432	£ 1,007,241	£ 47,100	£ 48,375	£ 17,539	£ 18,515	% 2.96

5. *Western Australia.*—(i) *General.* The water supply and sewerage systems of Western Australia are all under the management of Government Departments, and are divided into the following categories :—(a) Metropolitan Water Supply, Sewerage and Drainage, covering Perth, Fremantle, Claremont, Guildford, Midland Junction, and Armadale District, (b) Goldfields Water Supply, (c) Water Supply of other towns, (d) Agricultural Water Supply, (e) Other Mines Water Supply, and (f) Artesian and sub-artesian waters.

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Victoria Reservoir, Mundaring Reservoir, Churchman Brook Reservoir, fourteen bores, and the Armadale, Canning River, and Wungong pipe head dams. The sewerage system consists of septic tanks and percolating filters for Perth, and septic tanks and ocean outfalls for Fremantle and Subiaco. At the 30th June, 1932, the number of premises connected with sewers was 23,416.

(b) *Summary.* The following table gives particulars regarding water supply for the year 1931-32 :—

**METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA.—SUMMARY.**

Year ended 30th June—	Estimated Population Supplied.	Number of Houses Supplied.	Water Supplied.	Average Daily Supply.		Number of Meters.	Length of Mains.
				Per Head.	Per House.		
1932 ..	No. 229,000	No. 51,649	1,000 Gallons. 4,130,583	Gallons. 49.41	Gallons. 219.10	No. 36,675	Miles. 851½

(c) *Finances.* The table hereunder gives separate information for the water supply and sewerage and drainage branches for the year 1931-32 :—

**METROPOLITAN WATER SUPPLY, AND SEWERAGE AND DRAINAGE,  
WESTERN AUSTRALIA.—FINANCES.**

Year ended 30th June—	Water Supply.			Sewerage and Drainage.		
	Capital Cost.	Revenue.	Expendi- ture.	Capital Cost.	Revenue.	Expendi- ture.
1932 ..	£ 3,267,067	£ 268,765	£ 235,633	£ 1,608,668	£ 109,705	£ 99,164

(iii) *Goldfields Water Supply.* The source of supply for the Coolgardie and adjacent goldfields, as well as for towns and districts on or near the pipe-line, is the Mundaring Reservoir, which has a capacity of 4,650 million gallons. There are three classes of

consumers—the railways, the mines, and “other,” and in 1931–32 the railways consumed 6 per cent., the mines 23 per cent., and “other” 71 per cent. of the supply. The following table gives details for the year 1931–32 :—

**GOLDFIELDS WATER SUPPLY, WESTERN AUSTRALIA.—SUMMARY.**

Year ended 30th June—	Total Consumption.	Number of Services.	Length of Water Mains.	Capital Cost.	Revenue.	Expenditure.
1932 ..	1,000 gallons. 1,221,000	No. 10,850	Miles. 1,529	£ 3,821,958	£ 178,697	£ 167,175

(iv) *Water Supply of Other Towns.* During the year 1931–32 water supplied to other towns and districts amounted to 244,137,000 gallons distributed as follows :— Railways, 26,739,000 gallons; mines, 32,461,000 gallons; and 184,937,000 gallons to domestic and other consumers.

(v) *Agricultural Water Supply.* During the year 1931–32, one well was sunk which yielded fresh water and one tank was excavated. During the twenty-two years from the 1st July, 1910, to the 30th June, 1932, 491 tanks were built, 368 wells sunk, and 3,452 bores put down to a total depth of 152,474 feet. Of the bores mentioned, 517 yielded fresh and 287 stock water.

(vi) *Artesian and Sub-artesian Waters.* Up to the 30th June, 1932, the total number of bores put down in search of artesian or sub-artesian water was 248, including 49 sunk in the metropolitan area, ranging in depth from 30 to 4,006 feet.

6. *Tasmania.*—(i) *Hobart Water Supply.* The cost of this undertaking to the 30th June, 1932, was £461,832, but a considerable amount of reticulation work has been done out of revenue and not charged to capital account. The outstanding loans at 30th June, 1932, amounted to £354,377. At the same date the number of tenements supplied in the city and suburbs was 10,658 and the length of reticulation mains 132½ miles. The revenue for the year 1931–32 was £40,432.

(ii) *Hobart Sewerage System.* The revenue for the year ended 30th June, 1932, was £35,474. Up to that date 80¾ miles of sewers had been laid in connexion with the original city system at a cost of £214,957 and 8,447 tenements connected. Since the original city was sewered, the Municipalities of Queenborough and New Town have been included in the city, and are now being sewered. In Queenborough 27¾ miles of sewers, connecting with 1,469 tenements, have been constructed at a cost of £126,837. In New Town a total of 36¾ miles of sewers has been laid, and 1,465 properties connected. The cost to 30th June, 1932, including surveys and sewerage outfall, was £112,165.

## § 6. Harbour Boards and Trusts.

1. *New South Wales.*—(i) *Sydney Harbour Trust.* (a) *General.* The Sydney Harbour Trust, which consists of three Commissioners appointed by the Government, controls the whole of the wharves resumed by the Government in 1901. The Commissioners also provide and maintain the lighting and marking of the harbour, and carry out all necessary dredging. The whole of what might be termed city wharves is owned by the Commissioners and leased to various shipping companies, but the Trust directly operates and maintains a certain number of unleased wharves. Outside the city area the wharves are, to a large extent, privately controlled, but all structures beyond high-water mark are held under leases issued by the Trust. The extent of wharfage accommodation now available for use totals 76,993 lineal feet, inclusive of 9,498 lineal feet privately owned, 4,693 lineal feet of cross wharf and 3,427 lineal feet of ferry wharves.

The depth of water at the entrance to the port is not less than 80 feet, and in the channels there are 40 feet at low-water spring tides. The foreshores of Sydney Harbour are about 200 miles in length. The area of the water in the port is 14,284 acres, of which 3,000 acres have a depth ranging from 35 to 160 feet.



Since its inception, the Trust has incurred capital expenditure of £7,810,700 on the reconstruction and extension of the wharfage and improvements to the port and vested area. Over 14,381 lineal feet of old and obsolete wharfage have been demolished, and 35,962 lineal feet of new berths have been constructed. Other improvements include 3,000,000 square feet (approximately) of floor area of sheds and nearly 4 miles of new roadways.

During the year 1931-32, 482,075 tons of material were dredged at a cost of £13,417. In the process of towing such material, 20,617 miles were run at a cost of £9,922.

(b) *Finances.* The subjoined table gives particulars concerning the finances of the Trust for the year 1932 :—

## SYDNEY HARBOUR TRUST.—FINANCES.

Year ended 30th June	Revenue.				Working Expenditure.	Total Capital Debt.	Interest.	Deficiency.
	Wharfage and Harbour Rates.	Tonnage Rates and Berthing Charges.	Other Sources.	Total.				
1932 ..	£ 484,402	£ 36,432	£ 311,352	£ 832,186	£ 393,862	£ 11,611,905	£ 4595,699	£ 157,374

(a) Includes £41,002 sinking fund contributions.

2. *Victoria.*—(i) *Melbourne Harbour Trust.* (a) *General.* Information regarding the origin and constitution of this Trust will be found in Official Year Book No. 12, pp. 970 et seq. At the 31st December, 1932, the sheds available for wharfage accommodation had a length of 18,938 feet, covering an area of 1,247,713 square feet. The area of water in the bay and River Yarra under the control of the Trust is approximately 5,325 acres and the berthing space in the port is 63,419 feet in length with an area of over 62 acres of wharf space. During 1932 the quantity of material raised by dredging and excavation in the river and bay amounted to 1,258,007 barge yards at a cost of £49,093. The Trust has expended £342,160 in reclaiming land within its jurisdiction by depositing 16,082,401 barge yards thereon.

(b) *Finances.* During the year ended 31st December, 1932, the revenue (excluding refunds) of the Trust amounted to £510,146, and expenditure to £456,436 (including the amount of £101,857 paid to Consolidated Revenue). There was a net surplus on revenue account of £3,663. Appropriation for sinking fund and charges for depreciation, renewals and insurance against revenue account for the year amounted to £50,047. The capital expenditure for the year was £136,101. Up to the 31st December, 1932, the total capital expenditure amounted to £8,816,399. The loan indebtedness at the 31st December, 1932, was £4,594,504.

(ii) *Geelong Harbour Trust.* The Geelong Harbour Trust was constituted in 1905, and is under the control of three Commissioners appointed by the Governor in Council. Ordinary revenue for the year 1932 was £56,196, and proceeds from loans £3,000. Expenditure from revenue was £57,519 and from loans £4,074, while loans outstanding at the end of that year amounted to £617,422.

(iii) *Harbour Boards.* The Harbour Boards Act of 1927 provides for the constitution of Harbour Boards for the following ports :—Gippsland Lakes; Welshpool; Warrnambool; Port Fairy; Portland. These ports have, hitherto, been under the control of the Department of Ports and Harbours of Victoria. The first board to be constituted under this Act is the Warrnambool Harbour Board. The total income of this Board for the year ended 30th September, 1932, was £2,130, and the total expenditure was £2,163. The loans outstanding on 30th September, 1932, amounted to £5,961.

3. *Queensland.*—(i) *Bowen Harbour Board.* (a) *General.* The Bowen Harbour Board consists of seven members, of whom two are appointed by the Governor in Council and the remainder elected by the electors of the Town of Bowen and adjacent shires. The district under its jurisdiction comprises the area within the boundaries of the Town of Bowen, the Shires of Prosperine and Wangaratta, and division I. of the Shire of Ayr.

(b) *Finances.* The capital expenditure for the year 1932 was £108, while for the same period the receipts were £10,447 and the expenditure £10,365.

(ii) *Bundaberg Harbour Board. (a) General.* The Bundaberg Harbour Board consists of nine members, of whom one is appointed by the Governor in Council, four elected by the electors of the City of Bundaberg, and two each by the electors of the Shires of Gooburrum and Woongarra.

(b) *Finances.* Receipts for the year 1932 amounted to £3,481 as compared with £6,319 in 1931, while expenditure for corresponding periods totalled £3,875 and £5,577 respectively, with interest and redemption on loans for the half-year ended 31st December, 1932 not yet paid.

(iii) *Cairns Harbour Board. (a) General.* The Cairns Harbour Board consists of twelve members, representing the city of Cairns and six adjoining shires. The wharves which are all under the control of this Board, consist of 1,900 lineal feet, all reinforced ferro-concrete structures, 1,500 feet of which form an unbroken quay line. Railway facilities are provided on the wharves together with cold stores and mechanical sugar handling equipment. The total tonnage of outward cargo from the port for 1932 was 221,505 tons, of which sugar comprised approximately 75 per cent.

(b) *Finances.* The gross revenue of the Board, derived from harbour, berthage, and miscellaneous dues, etc., for the year 1932, was £56,235.

(iv) *Gladstone Harbour Board. (a) General.* The Gladstone Harbour Board is composed of seven members, two of whom are appointed by the Governor in Council and five elected by the electors of the town of Gladstone and the shires of Calliope and Miriam Vale.

(b) *Finances.* The total capital expenditure to the end of 1932 amounted to £91,708. The revenue for 1932 was £7,076 and the expenditure £6,794.

(v) *Mackay Harbour Board. (a) General.* The Mackay Harbour Board consists of nine members elected by the electors of the city of Mackay and the shires of Pioneer, Sarina, Mirani, and Nebo.

(b) *Finances.* Capital expenditure for the year 1932 was £2,915, and other expenditure £13,140; receipts totalled £13,579.

(vi) *Rockhampton Harbour Board. (a) General.* The Rockhampton Harbour Board consists of eleven members, of whom seven are elected by the electors on the rolls for the city of Rockhampton, and the shires of Mount Morgan, Fitzroy and Livingstone. The remaining four are elected by the councillors of groups of inland shires.

(b) *Finances.* The revenue for the year 1932 was £28,533; and the expenditure was £26,147, which included £91 interest on loans and overdraft.

(vii) *Townsville Harbour Board. (a) General.* The Townsville Harbour Board is composed of nine members, of whom two are appointed by the Governor in Council and the remaining seven are elected by the electors of Townsville and adjacent towns and shires. All harbour works and conveniences for the use of shipping are under the control of the Board.

(b) *Finances.* The total expenditure since the inception of the Board is £2,073,236, while the receipts for the year 1932 were £56,239 and the expenditure £54,807.

4. *Western Australia.*—(i) *Fremantle Harbour Trust. (a) General.* Fremantle Harbour is controlled by a Board of five Commissioners appointed by the Governor in Council. A description of the works was given in a previous Year Book (see No. 12, p. 973). Since that account was written, the inner harbour and entrance channel have been dredged to a depth of 36 feet below the lowest known low water. The berthage accommodation at all the quays has also been deepened to 36 feet.

(b) *Finances.* The following table gives financial data for the year 1931-32 :—

**FREMANTLE HARBOUR TRUST.—FINANCES.**

Year ended 30th June—	Revenue.	Expenditure.	Gross Amount Paid to the Treasury.				
			Interest.	Sinking Fund.	Renewals Fund.	Surplus Revenue.	Total.
1932 .. ..	£ 379,043	£ 384,353	£ 113,870	£ 10,086	£ 2,000	£ 103,361	£ 229,317

(ii) *Bunbury Harbour Board. (a) General.* The Bunbury Harbour Board consists of five members, appointed by the Government. The jetty is 4,900 feet long, with berthage accommodation of 2,700 feet on the west side and 3,000 feet on the east side, and is electrically lighted.

(b) *Finances.* Details for the year 1932 are given hereunder. Surplus revenue is paid into Consolidated Revenue Fund to meet interest and sinking fund :—

**BUNBURY HARBOUR BOARD.—FINANCES.**

Year ended 30th June—	Capital Expenditure.	Revenue.	Expenditure.	Paid to Consolidated Revenue Fund.
1932 .. ..	£ 432,410	£ 19,736	£ (a)33,092	£ 6,600

(a) Includes Interest on Capital Account (£19,994) paid from Consolidated Revenue and not from earnings of the Board.

5. *Tasmania.—(i) Marine Board of Hobart. (a) General.* The Marine Board of Hobart consists of nine wardens elected by the ship-owners of the Port of Hobart and the importers and exporters of goods into or from any port within the jurisdiction of the Board.

(b) *Finances.* The following table gives details for the year ended 30th June, 1932 :—

**MARINE BOARD OF HOBART.—FINANCES.**

Year ended 30th June—	Capital Debt.	Revenue.			Expenditure.			
		Harbour Improvements, Debentures, etc.	General.	Total.	Harbour Improvements.	Interest and Sinking Fund.	General.	Total.
1932 .. ..	£ 12,648	£ ..	£ 38,403	£ 38,403	£ ..	£ 1,688	£ 31,837	£ 33,525

(ii) *Marine Board of Launceston. (a) General.* The Marine Board of Launceston consists of five wardens, three elected by the ratepayers of the city of Launceston and two by ratepayers of the municipalities within the Tamar District.

(b) *Finances.* The following table gives details for the year ended 30th June, 1932 :—

MARINE BOARD OF LAUNCESTON.—FINANCES.

Year ended 30th June—				Total Capital Debt.	Revenue.	Expenditure.
				£	£	£
1932	..	..	..	310,492	51,543	55,138

(iii) *Marine Board of Burnie.* The length of the breakwater is 1,250 feet, with a depth up to 42 feet at low water, and a wharf alongside, 630 feet in length by 91 feet wide, with a depth at low water from 24 to 40 feet. There are two other timber wharves 600 feet and 400 feet long respectively. The receipts for the year ending 30th June, 1932, were £18,938, and the expenditure £21,381, including £16,665 interest on loans, etc.

### § 7. Fire Brigades.

1. *New South Wales.*—(i) *General.* Under the Fire Brigades Act of 1909-27, a Board of Fire Commissioners consisting of eight members operates, and 108 fire districts have been constituted. The cost of maintenance of fire brigades is borne in proportions of quarter, quarter, and half, by the Government, the municipalities, and the insurance companies concerned, but the expenditure must be so regulated that the proportion payable by the councils in a fire district shall not exceed the amount obtainable from  $\frac{1}{4}$ d. in the £ rate on the unimproved capital value of rateable land in the fire district: provided that the Board, with the consent of the Minister, and at the special request of the councils of the municipalities or shires constituting or forming part of a fire district or a majority in number of such councils may, as to that district, exceed the limit above provided.

(ii) *Board of Fire Commissioners of New South Wales.* At the 31st December, 1932, the Board had under its control 76 fire stations in the Sydney fire district and 136 fire stations in the country fire districts. The Sydney fire district includes the City of Sydney and suburbs, comprising a total area of 255 square miles. The revenue for the year 1932 was £395,130, made up as follows :—From the Government, £96,899, municipalities and shires, £96,899; fire insurance companies, £192,949; firms, £849; and from other sources, £7,534. The disbursements for the year were £394,775.

2. *Victoria.*—(i) *General.* The Fire Brigades Act of 1928 provides for a Metropolitan Fire Brigades Board, and a Country Fire Brigades Board, each consisting of nine members, with local committees in country districts. The income of each board is derived in equal proportions from the Treasury, the municipalities, and insurance companies.

(ii) *Metropolitan Fire Brigade Board.* On the 30th June, 1932, the Board had under its control 42 stations. The total receipts for the year 1931-32 were £194,703, comprising contributions £156,484, receipts for services £24,132, and interest and sundries £14,087. The expenditure was £191,875, made up as follows :—Salaries (permanent staff) £98,961, interest and repayments of principal £19,031, and other expenditure £73,883. There was no loan expenditure during the year—the loan indebtedness at the end of the year being £220,322.

(iii) *Country Fire Brigades Board.* At 30th June, 1932, there were 120 municipal councils and 105 insurance companies included in the operations of the Act. The brigades are composed chiefly of volunteers, but in the large centres a few permanent station-keepers and partially-paid firemen are employed. Complete fire alarm systems are installed in 36 of the larger provincial cities and townships. There were 145 registered brigades at the end of June, 1932. For the year 1931-32 the revenue was £27,300 and the expenditure £27,612. The loan expenditure for the year amounted to £3,950, and at the close of the year the loan indebtedness was £33,810.

3. *Queensland.*—(i) *General.* The Act of 1920 made provision for the retention of existing fire districts, and for the constitution of new districts. For each district there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows:—The Treasurer two-sevenths, insurance companies three-sevenths, and local authorities two-sevenths. All volunteer fire brigades in a district must be registered.

(ii) *Fire Brigades Boards.* At the end of the year 1931 there were fire brigades in 28 towns. The total revenue for the year 1931 was £56,303, received mainly from the following sources:—Government £12,171, local authorities £18,521, and insurance companies £23,276. The total expenditure for the year was £67,311, the chief items being salaries and wages £46,009, buildings, repairs, etc., £1,917, and plant, stores, etc., £2,802.

4. *South Australia.*—(i) *General.* The Fire Brigades Act of 1913 and amendments provide for a Board of five members, and the expenses and maintenance of brigades are defrayed as to two-ninths by the Treasury, five-ninths by insurance companies, and two-ninths by the municipalities concerned. The contribution of the Treasury, however, is limited to £10,000 and if two-ninths of the expenses and maintenance exceeds this amount, five-sevenths of the excess is contributed by the insurance companies and two-sevenths by the municipalities.

(ii) *Fire Brigades Board.* At the end of 1932 there were altogether 27 fire brigade stations. The total revenue for the year 1932 was £41,700.

5. *Western Australia.*—(i) *General.* Under the 1916 Act every municipal or road board district is constituted a fire district under the control of the Western Australian Fire Brigades Board. The income of the Board is derived as to two-eighths from Government, three-eighths from municipalities, and three-eighths from insurance companies.

(ii) *Western Australian Fire Brigades Board.* The whole of the brigades throughout the State are now controlled by the Western Australian Fire Brigades Board, and number 39. The revenue and expenditure for the year ended 30th September, 1932, were £49,337 and £48,368 respectively. The estimated value of land and buildings was £68,600 and of plant £38,500.

6. *Tasmania.*—(i) *General.* The municipal council of any municipality may, under the Act of 1920, petition the Governor to proclaim the municipality or any portion of it to be a fire district, each district to have a Board of five members. The expenses of each Board are borne in equal proportions by contributions from the Treasurer, the municipality concerned, and insurance companies insuring property within the district.

(ii) *Hobart Fire Brigade Board.* The revenue of the Board for the year 1932 amounted to £5,388.

## CHAPTER V. LAND TENURE AND SETTLEMENT.

### § 1. Introduction.

1. **General.**—A comprehensive description of the land tenure systems of the several States was given in Official Year Book No. 4 (pp. 235 to 333), while later alterations were referred to in subsequent issues. In this chapter a summary is given of the principal features of existing land legislation. In previous issues an account of the various tenures under which Crown lands may be taken up was given. (See Year Book No. 22, pp. 133-195; also 2 hereunder for a conspectus of legislation at present in force.) Special paragraphs are devoted to the settlement of returned soldiers on the land, the tenure of land by aliens, and advances to settlers. Particulars as to the areas of land alienated in each State and similar matter are also included.

2. **State Land Legislation.**—The legislation in force relating to Crown lands, Closer Settlement, Returned Soldiers' Settlement, and other matters dealt with in this chapter is summarized in the following conspectus:—

#### STATE LAND LEGISLATION.

New South Wales.	Victoria.	Queensland.
<b>CROWN LANDS ACTS.</b>		
Crown Lands Act 1913-1931 : Western Lands Act 1901-1931 : Crown Lands Purchase Validation Act 1923. Crown Lands Amendment (Disposal) Act 1923. Crown Lands and Closer Settlement (Amending) Act 1924. Prickly Pear Act 1924-1930.	Land Act 1928, 1932.	Land Acts 1910-1932. Upper Burnett and Callide Land Settlement Act 1923-1932. Prickly Pear Land Acts 1923-1932. Sugar Workers' Selections Acts 1923-1932.
<b>CLOSER SETTLEMENT ACTS.</b>		
Closer Settlement Act 1904-1919 : Closer Settlement Purchases Validation Act 1923. Closer Settlement and Returned Soldiers' Settlement (Amendment) Act 1927.	Closer Settlement Act 1928-1929, 1930, 1931, 1932.	Closer Settlement Acts 1906-1932.
<b>MINING ACTS.</b>		
Mining Act. 1906-1924 : Mining Leases (Validation) Act 1924.	Mines Act 1928.	Mining Acts 1898-1930 : Mining for Coal and Mineral Oil Act 1912 : Petroleum Acts 1923-1929 : Miners' Homestead Leases Act 1913-1930 : Coal Mining Act 1925-1930.
<b>SOLDIERS' SETTLEMENT ACTS.</b>		
Returned Soldiers' Settlement Act 1916-1928.	Closer Settlement Act (Part II.) 1928-1929, 1930, 1931, 1932.	Discharged Soldiers' Settlement Act 1917-1932.
<b>ADVANCES TO SETTLERS ACTS.</b>		
Government Savings Bank Act 1906-1923 : Returned Soldiers' Settlement Act 1916-1925.	State Savings Bank Act 1915-1922 : Primary Products Advances Act 1919-1922 : Closer Settlement Act 1928-1929, 1930, 1931, 1932 : Fruit Act 1915-1920 : Cultivation Advances Act 1931, 1932.	State Advances Act 1916 : Co-operative Agricultural Products and Advances to Farmers Act 1914-1919 : Agricultural Bank Act 1923-1929.

STATE LAND LEGISLATION—*continued.*

South Australia.	Western Australia.	Tasmania.
CROWN LANDS ACTS.		
Crown Lands Act 1929-1931 : Pastoral Act 1904-1929.	Land Act 1898-1932.	Crown Lands Act 1911-1924- 1931.
CLOSER SETTLEMENT ACTS.		
Crown Lands Act 1929-1931.	Agricultural Lands Purchase Act 1909-1929 : Closer Settlement Act 1927.	Closer Settlement Act 1913-1924, 1929.
MINING ACTS.		
Mining Act 1930-1931.	Mining Act 1904-1932 : Sluicing and Dredging for Gold Act 1899.	Mining Act 1917-1929 : Aid to Mining Act 1924.
RETURNED SOLDIERS' SETTLEMENT ACTS.		
Discharged Soldiers' Settlement Act 1917-1931.	Discharged Soldiers' Settlement Act 1918-1919.	Returned Soldiers' Settlement Act 1916-1923.
AGRICULTURAL GRADUATES SETTLEMENT ACTS.		
Agricultural Graduates Act 1922.	..	..
ADVANCES TO SETTLERS ACTS.		
Irrigation Act 1930 : Discharged Soldiers' Settlement Act 1917- 1931 : State Bank Act 1925- 1928 : Advances to Settlers on Crown Lands Act 1930 : Agri- cultural Graduates Act 1922 : Loans for Fencing and Water Piping Act 1930.	Agricultural Bank Act 1906-1931.	State Advances Act 1907-1927 : Advances to Fruit-growers Act 1918-1921 : Closer Settlement Act 1913-1929 : Returned Sol- diers' Settlement Act 1916- 1923. Advances to Farmers to Relieve Unemployment.

3. **Northern Territory Land Legislation.**—In the Northern Territory of Australia the legislation relating to Crown lands is embodied in the Crown Lands Ordinance 1931, that relating to mining in the Northern Territory Mining Act 1903, the Gold Dredging Act 1899, the Tin Dredging Ordinance 1911-1920, the Mineral Oil and Coal Ordinance 1922-1923, and the Encouragement of Mining Ordinance 1913-1926; and that relating to Advances to Settlers in the Wire and Wire Netting Act 1927, and the Encouragement of Primary Production Ordinance 1931.

4. **Federal Capital Territory Land Legislation.**—In the Federal Capital Territory the Ordinances relating to Crown lands are the Leases Ordinance 1918-1927, the Public Parks Ordinance 1928, the City Area Leases Ordinance 1924-1929, the Church Lands Leases Ordinance 1924-1930, and the Leases (Special Purposes) Ordinance 1925-1930.

5. Administration and Classification of Crown Lands.—In each of the States there is a Lands Department under the direction of a responsible Cabinet Minister who is charged generally with the administration of the Acts relating to the alienation, occupation and management of Crown lands. The administrative functions of most of the Lands Departments are to some extent decentralized by the division of the States into what are usually termed Land Districts, in each of which there is a Lands Office, under the management of a lands officer, who deals with applications for selections and other matters generally appertaining to the administration of the Acts within the particular district. In some of the States there is also a local Land Board or a Commissioner for each district or group of districts. In the Northern Territory the Land Board, under the control of the Minister for the Interior, is charged with the general administration of the Lands Ordinance and of Crown lands in the Northern Territory. In the Federal Capital Territory the administration of the Leases Ordinances is in the hands of the Department of the Interior.

Crown lands are generally classified according to their situation, the suitability of the soil for particular purposes, and the prevailing climatic and other conditions. The modes of tenure under the Acts, therefore, as well as the amount of purchase money or rent, and the conditions as to improvements and residence, vary considerably. The administration of special Acts relating to Crown lands is in some cases in the hands of a Board under the general supervision of the Minister, e.g., the Western Lands Board in New South Wales.

In each of the States and in the Northern Territory there is also a Mines Department which is empowered under the several Acts relating to mining to grant leases and licences of Crown lands for mining and auxiliary purposes.

6. Classification of Tenures.—The tabular statement which follows shows the several tenures under which Crown lands may be acquired or occupied in each State. In the Northern Territory, leases (excepting pastoral and "miscellaneous") are granted in perpetuity, pastoral and "miscellaneous" leases being restricted to periods of not more than 42 and 21 years respectively. The Lands Ordinance provides also for the grant in fee-simple of town lands, agricultural lands, garden lands, and tropical lands, and for the issue of grazing, occupation, and "miscellaneous" licences. The mining leases and holdings are, generally speaking, similar to those of the States. In the Federal Capital Territory only leases are issued.

#### STATE CROWN LANDS—TENURES.

New South Wales.	Victoria.	Queensland.
<b>FREE GRANTS AND RESERVATIONS.</b>		
Free Grants : Reservations.	Free Grants : Reservations.	Free Grants : Reservations.
<b>UNCONDITIONAL PURCHASES OF FREEHOLD.</b>		
Auction Sales : After-auction Purchases : Special Purchases : Improvement Purchases.	Auction Sales.	
<b>CONDITIONAL PURCHASES OF FREEHOLD.</b>		
Residential Conditional Purchases : Non-residential Conditional Purchases : Additional Conditional Purchases : Conversions of various Leasehold Tenures into Conditional Purchases : Purchases of Town Leases, Suburban Holdings, Returned Soldiers' Special Holdings, Residential Leases, Week-end Leases.	Residential Selection Purchase Leases : Non-residential Selection Purchase Leases : Licences of Auriferous worked-out Lands : Conditional Purchase Leases of Swamp or Reclaimed Lands : Selection Purchase Leases of Mallee Lands : Murray River Settlements : Special Settlement Areas : Conversions into Selection Purchase Leases.	



STATE CROWN LANDS—TENURES—*continued.*

New South Wales.	Victoria.	Queensland.
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LEASES AND LICENCES UNDER LAND ACTS.

Conditional Leases : Conditional Purchase Leases : Special Conditional Purchase Leases : Homestead Selections : Homestead Farms : Settlement Leases : Special Leases : Annual Leases : Scrub Leases : Snow Leases : Inferior Lands Leases : Crown Leases : Improvement Leases and Leases under Improvement Conditions : Occupation Licences : Leases of Town Lands : Suburban Holdings : Weekend Leases : Residential Leases : Leases in Irrigation Areas : Western Lands Leases : Forest Leases : Forest Permits.	Perpetual Leases : Auriferous Lands Licences : Leases of Swamp or Reclaimed Lands : Perpetual Leases of Swamp or Reclaimed Lands : Grazing Licences : Perpetual Leases (Mallee) : Miscellaneous Leases and Licences : Bee Farm Licences : Bee Range Area Licences : Eucalyptus Oil Licences : Forest Leases : Forest Licences : Forest Townships.	Perpetual Lease Selections : Perpetual Lease Prickly Pear Selections : Perpetual Lease Prickly Pear Development Selections : Pastoral Leases : Preferential Pastoral Leases : Stud Holdings : Prickly Pear Leases : Occupation Licences : Special Leases : Grazing Selections : Development Grazing Selections : Prickly Pear Development Grazing Selections : Auction Perpetual Leases : Pastoral Development Leases.
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CLOSER SETTLEMENT.

Sales by Auction and Tender : After-auction Sales and Tenders : Settlement Purchases.	Sales of Land : Conditional Purchase Leases : Conditional Purchase Leases in Mountainous Areas.	Perpetual Lease Selections : Settlement Farm Leases : Perpetual Town, Suburban and Country Leases.
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LEASES AND LICENCES UNDER MINING ACTS.

Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases : Coal and Oil Mining Leases : Business Licences : Residence Areas.	Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases : Business Areas : Residence Areas.	Holdings under Miners' Rights : Permits to Prospect for Petroleum : Petroleum Leases : Licences to Prospect for Coal and Mineral Oil : Gold Mining Leases : Mineral Leases : Coal Mining Leases : Business Areas : Residence Areas : Miners' Homestead Leases and Miners' Homestead Perpetual Leases.
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SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.

Soldiers' Group Purchases : Returned Soldiers' Special Holding Leases : Returned Soldiers' Special Holding Purchases : also Purchases and Leases under Crown Lands Act of lands set apart for application by discharged soldiers exclusively.	(Same Tenures as under the Land and Closer Settlement Acts.)	Perpetual Lease Selections : Perpetual Town and Suburban Leases.
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STATE CROWN LANDS—TENURES—*continued.*

South Australia.	Western Australia.	Tasmania.
<b>FREE GRANTS AND RESERVATIONS.</b>		
Free Grants : Reservations.	Free Grants : Reservations.	Free Grants : Reservations.
<b>UNCONDITIONAL PURCHASES OF FREEHOLD.</b>		
Auction Sales. By Private Contract (Land passed at Auction).	Auction Sales.	Auction Sales : After-auction Sales : Sales of Land in Mining Towns.
<b>CONDITIONAL PURCHASES OF FREEHOLD.</b>		
Agreements to Purchase : Special Agreements to Purchase (40 years' term) : Homestead Blocks.	Conditional Purchases with Resi- dence : Conditional Purchases without Residence : Conditional Purchases by Direct Payment : Conditional Purchases of Land for Vineyards, etc. : Conditional Purchases of Inferior Lands : Conditional Purchases by Pas- toral Lessees : Conditional Pur- chases of Grazing Lands : Homestead Farms : Village Allotments : Workingmen's Blocks : Special Settlement Leases.	Selections for Purchase : Addi- tional Selections for Purchase : Homestead Areas : Selections in Mining Areas : Sales by Auction : Sales by Private Contract : After-auction Sales : Special Settlement Areas.
<b>LEASES AND LICENCES UNDER LAND ACTS.</b>		
Perpetual Leases : Special Per- petual Leases (Free Period) : Perpetual Leases of Homestead Blocks : Miscellaneous Leases : Licences : Pastoral Leases : Irrigation Blocks : Town Allotments in Irrigation Areas : Forest Leases.	Pastoral Leases : Special Leases : Residential Leases : Leases of Town and Suburban Lands : Irrigation Leases.	Grazing Leases : Pastoral Leases : Leases of Land covered with Button Grass, etc. : Leases of Mountainous Land : Miscel- laneous Leases : Temporary Licences : Occupation Licen- ces : Residence Licences : Business Licences : Forest Leases, Licences and Permits.
<b>CLOSER SETTLEMENT.</b>		
Sales by Auction : Agreements to Purchase : Perpetual Leases : Miscellaneous Leases.	Conditional Purchases : Town and Suburban Areas.	Leases with Right of Purchase : Special Sales.
<b>LEASES AND LICENCES UNDER MINING ACTS.</b>		
Holdings under Miners' Rights : Search Licences : Occupation Licences : Gold Leases : Mineral Leases : Business Areas : Residence Areas : Miscellaneous Leases (Salt and Gypsum).	Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases : Business Areas : Residence Areas : Miners' Homestead Leases.	Holdings under Miners' Rights : Prospectors' Licences : Gold Mining Leases : Mineral Leases.
<b>SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.</b>		
Perpetual Leases : Pastoral Leases : Agreements to Pur- chase : Miscellaneous Leases.	Ordinary Tenure : Special Tenure.	Free Grants : Ordinary Tenure : Special Tenure.
<b>AGRICULTURAL GRADUATES SETTLEMENT ACTS.</b>		
Agreements to Purchase.	..	..

## § 2. Free Grants and Reservations.

1. *New South Wales.*—(i) *Free Grants.* Crown lands may, by notification in the *Gazette*, be dedicated for public purposes and be granted therefor in fee-simple. Such lands may be placed under the care and management of trustees, not less than three in number, appointed by the Minister.

(ii) *Reservations.* Temporary reservations of Crown lands from sale or lease may be made by the Minister.

(iii) *Areas Granted and Reserved.* During the year 1931–32 the total area for which free grants were prepared was 1,689 acres, including grants of 1,577 acres of land resumed under the 12th clause of the Public Roads Act 1902. During the same period 853 acres were dedicated and permanently reserved, the number of separate dedications being 67.

On the 30th June, 1932, the total area reserved, including temporary reserves, was 16,795,961 acres, of which 5,249,818 acres were for travelling stock, 2,180,729 acres for forest reserves, 993,643 acres for water and camping, 1,138,813 acres for mining, and the remainder for temporary commons, railways, recreation reserves and parks, reserves for aborigines, and miscellaneous purposes.

2. *Victoria.*—(i) *Free Grants.* The Governor may grant, convey or otherwise dispose of Crown lands for public purposes.

(ii) *Reservations.* The Governor may temporarily or permanently reserve from sale, lease or licence any Crown lands required for public purposes, and may except any area of Crown lands from occupation for mining purposes or for residence or business under any miner's right or business licence.

(iii) *Areas Granted and Reserved.* During the year 1931, 200 acres were granted without purchase, and reservations of both a permanent and temporary nature, comprising a net area of 1,516 acres, were made. At the end of 1931, the total area reserved was 7,979,850 acres, consisting of roads, 1,794,218 acres; water reserves, 312,723 acres; agricultural colleges, etc., 87,003 acres; permanent forests and timber reserves under Forests Act, 4,678,052 acres; forests and timber reserves under Land Acts, 330,135 acres; reserves in the Mallee, 410,000 acres; and other reserves, 367,719 acres.

3. *Queensland.*—(i) *Free Grants.* The Governor may grant in trust any Crown land which is or may be required for public purposes. Under the Irrigation Act, land to be used for the purpose of any undertaking under that Act may be vested in fee-simple in the Irrigation Commission.

(ii) *Reservations.* The Governor may reserve from sale or lease, either temporarily or permanently, any Crown land which is or may be required for public purposes. Reserved lands may be placed under the control of trustees who are empowered to lease the same for not more than 21 years with the approval of the Minister.

Under the State Forests and National Parks Act, the Governor may permanently reserve any Crown lands and declare them to be a State Forest or a National Park.

(iii) *Areas Granted and Reserved.* During the year 1932 the area granted in fee-simple without payment was 216 acres, the area set apart as reserves 579,249 acres, and reserves cancelled 481,746 acres. The total area reserved at the end of 1932 was 17,757,782 acres, made up as follows:—timber reserves, 3,217,549 acres; State forests and national parks, 2,365,721 acres; for use of aborigines, 6,206,892 acres; and general, 5,967,620 acres.

4. **South Australia.**—(i) *Free Grants.* The Governor may dedicate Crown lands for any public purpose and grant the fee-simple of such lands, with the exception of foreshores and land for quays, wharves or landing-places, which are inalienable in fee-simple from the Crown.

(ii) *Reservations.* The Governor may reserve Crown lands for (a) the use and benefit of aborigines, (b) military defence, (c) forest reserves, (d) railway stations, (e) park lands, or (f) any other purpose that he may think fit.

(iii) *Areas Granted and Reserved.* During the year 1932 free grants were issued for a total area of 22 acres. During the same year reserves comprising 14,532 acres were proclaimed. At the 30th June, 1932, the total area reserved was 16,438,536 acres, including 14,016,000 acres in the north-west of the State set apart as an aboriginal reserve in 1921.

5. **Western Australia.**—(i) *Free Grants.* The Governor may dispose of, in such manner as for the public interest may seem best, any lands vested in the Crown for public purposes, and may grant the fee-simple of any reserve to secure the use thereof for the purpose for which such reserve was made.

(ii) *Reservations.* The Governor may reserve any lands vested in the Crown for public purposes. Areas not immediately required may be leased from year to year. Reserves may be placed under the control of a local authority or trustees, with power to lease them for a period not exceeding 21 years, or may be leased for 99 years. Temporary reserves may also be proclaimed.

(iii) *Areas Granted or Reserved.* During the year ended 30th June, 1932, a few small areas of land were granted in fee-simple, and approximately 24,667 acres were reserved for various purposes. At the 30th June, 1932, the total area reserved was 40,333,342 acres, comprising State forests, 2,967,912 acres, timber reserves, 1,430,362 acres, and other reserves, 35,935,068 acres.

6. **Tasmania.**—(i) *Free Grants.* The only mention in the Crown Lands Act respecting free grants of land is that the Governor may agree with the Governor-General of the Commonwealth for the grant of any Crown land to the Commonwealth, and it is expressly stated that no lands may be disposed of as sites for religious purposes except by way of sale under the Act. Under the Returned Soldiers' Settlement Act of 1916, returned soldiers who applied prior to 31st March, 1922, are eligible to receive free grants of Crown land not exceeding £100 each in value, but these grants are conditional on the land being adequately improved.

(ii) *Reservations.* The Governor in Council may except from sale or lease, and reserve to His Majesty any Crown land for public purposes, and vest for such term as he thinks fit any land so reserved in any person or corporate body. Any breach or non-fulfilment of the conditions upon which such land is reserved renders it liable to forfeiture. A school allotment, not exceeding 5 acres in area, may also be reserved.

(iii) *Areas Granted or Reserved.* During the year ended 31st December, 1932, the area granted free was 1,249 acres, all of which was granted to soldiers under the Returned Soldiers' Settlement Act, while during the same year, free leases were issued to 2 local bodies for municipal purposes, and 10 acres were reserved. The total area reserved to the end of 1932 was 4,767,717 acres.

7. **Northern Territory of Australia.**—(i) *Reservations.* The Governor-General may resume for public purposes any Crown lands, not subject to any right of or contract for purchase, and may reserve, for the purpose for which they are resumed, the whole or any portion of the land so resumed.

(ii) *Areas Reserved.* The total area of reserves at the 30th June, 1932, was 65,279 square miles, comprising aboriginal native, 61,124 square miles, prospecting for mineral oil and coal, 1,000 square miles, mission station, 1,225 square miles, and other reserves, 1,930 square miles.

### § 3. Unconditional Purchases of Freehold.

1. *New South Wales.*—(i) *Auction Purchases.* Crown lands, not exceeding in the aggregate 200,000 acres in any one year, may be sold by public auction in areas not exceeding half-an-acre for town lands, 20 acres for suburban lands, and 640 acres for country lands, at the minimum upset price of £8, £2 10s., and 15s. per acre respectively. At least 10 per cent. of the purchase-money must be paid at the time of sale, and the balance within three months, or the Minister may allow the payment of such balance to be deferred for a period not exceeding 10 years, 5 per cent. interest being charged. Town blocks in irrigation areas may also be sold by auction.

(ii) *After-auction Purchases.* In certain cases, land offered at auction and not sold may be purchased at the upset price, but one-quarter of the purchase-money must be paid as deposit with the application, and the balance as notified in the *Gazette*. Any such application is, however, subject to the approval of the Minister.

(iii) *Special Purchases.* Under certain circumstances, land may be sold in fee-simple, the purchaser paying the cost of survey and of reports thereon, in addition to the purchase-money. The minimum upset price per acre is the same as in the case of land sold by auction. Areas not exceeding five acres in extent may be sold, at prices determined by the local land board, to recognized religious bodies and public authorities.

(iv) *Improvement Purchases.* The owner of improvements in authorized occupation by residence, under any mining or Western Lands Act of land within a gold-field or mineral field, may purchase such land without competition at a price determined by the local Land Board, but at not less than £8 per acre for town lands or £2 10s. per acre for other lands. The area must not exceed  $\frac{1}{4}$  acre within a town or village, or 2 acres elsewhere, and no person may purchase more than one such area within 3 miles of a similar prior purchase by him.

(v) *Areas Sold.* During the year ended 30th June, 1932, the total area sold was 512 acres, of which 214 acres were sold by auction and 84 acres as after-auction purchases, while 4 acres were sold as improvement purchases and 210 acres as special purchases. The amount realized for the sale of the whole area was £7,124.

2. *Victoria.*—(i) *General.* Lands specially classed for sale by auction may be sold by auction in fee-simple, not exceeding 100,000 acres in any one year, at an upset price not less than £1 per acre. The purchaser must pay the survey fee at the time of the sale, together with a deposit of 12 $\frac{1}{2}$  per cent. of the whole price; the residue is payable in equal half-yearly instalments with interest. Any unsold land in a city, town or borough, areas specially classed for sale, isolated pieces of land not exceeding 50 acres in area, and sites for churches or charitable purposes, if not more than three acres in extent, may be sold by auction on the same terms. Swamp or reclaimed lands may also be sold by auction, subject to the condition that the owner keeps open all drains, etc., thereon.

(ii) *Areas sold at Auction and by Special Sales.* During the year 1931, a total of 1,482 acres was disposed of under this tenure, 619 acres being country lands, while 863 acres of town and suburban lands were sold by auction.

3. *Queensland.*—(i) *General.* During the years 1917 to 1929 the law precluded land being made available for any class of selection which gave the selector the right to acquire the freehold title. By amended legislation passed in 1929, power was given to make land available under freeholding tenures. The provision in the 1929 Act conferring this power was, however, repealed by the Act of 1932.

(ii) *Sales by Auction.* Consequent upon an amendment made by the Act of 1932, Crown land cannot now be offered for sale by auction on a freeholding basis.

(iii) *Areas Sold, etc.* During the year 1931, 1,919 acres were sold at auction, and 87 unconditional selections comprising an area of 21,219 acres were made freehold.

4. **South Australia.**—(i) *Sales by Auction.* The following lands may be sold by auction for cash :—(a) special blocks, (b) Crown lands which have been offered for lease and not taken up within 2 years, (c) town lands, and (d) suburban lands, which the Governor excepts from the operations of the Land Board. A purchaser must pay 20 per cent. of the purchase money in cash, and the balance within one month or within such extended time as the Commissioner of Crown Lands may allow. Town lands may be sold subject to the condition that they cannot be transferred or mortgaged for 6 years without the consent of the Commissioner.

(ii) *Areas Sold, etc.* During the year ended 30th June, 1932, the area of town lands and special blocks sold by auction was 11 acres. In addition, 13,540 acres were sold at fixed prices, and the purchases of 6,018 acres on credit were completed, making a total of 19,569 acres.

5. **Western Australia.**—(i) *Sales by Auction.* Town, suburban, and village lands, after being surveyed into lots and notified in the *Gazette*, must be sold by auction. Ten per cent. of the purchase money must be paid in cash, together with the value of any improvements, and the balance in four equal quarterly instalments. Suburban land must be fenced within 2 years, and, until that is effected, no Crown grant may be issued.

(ii) *Areas Sold.* During the year ended 30th June, 1932, the area of town and suburban allotments sold was 1,545 acres in 403 allotments.

6. **Tasmania.**—(i) *Sales by Auction.* Town lands may be sold by auction for cash or on credit, no conditions being imposed beyond the payment of the purchase money. No town land, the price of which is less than £15, may be sold on credit.

(ii) *After-auction Sales.* Town lands, not within 5 miles of any city, which, after having been offered at auction, have not been sold, may be sold at the upset prices by private contract.

(iii) *Sales of Land in Mining Towns.* Any town land in a mining area may be sold by auction for cash, provided that any person, being the holder of a residence licence or business licence in lawful occupation of a residence area or business area and the owner of permanent improvements of a value equal to or greater than the upset price, is entitled to purchase such area at the upset price, prior to the sale by auction. The upset price of the unimproved value must not be less than £10, and the area must not exceed  $\frac{1}{2}$  acre.

(iv) *Areas Sold.* During the year 1932 the area sold by auction or by special sale amounted to 112 acres.

### § 4. Conditional Purchases of Freehold.

1. **General.** The various methods of obtaining Crown lands by conditional purchase in the several States are given in some detail in preceding issues of the Official Year Book (see No. 22 pp. 141-9).

2. **New South Wales.**—At the 30th June, 1932, the total number of conditional purchases in existence was 63,667, covering an area of 20,336,336 acres. The following table gives particulars of conditional purchases, including non-residential conditional purchases and special area conditional purchases, for the year ended 30th June, 1932, together with the total area for which deeds had been issued up to 30th June, 1932 :—

#### CONDITIONAL PURCHASES, NEW SOUTH WALES.

Year ended 30th June—	Applications Received. (a)		Applications Confirmed. (a)		Areas for which Deeds have been Issued.	
	Number.	Area.	Number.	Area.	During the Year.	To end of Year.
1932.. ..	190	Acres. 51,536	117	Acres. 34,969	Acres. 284,858	Acres. 24,347,664

(a) Exclusive of conversions from other tenures.

3. **Victoria.**—Exclusive of selection in the Mallee country, the total area purchased conditionally in 1931 was 58,575 acres, comprising 55,033 acres with residence and 3,542 acres without residence. The number of selectors was 277.

The total area of Mallee country purchased conditionally in the same year was 131,691 acres, all with residence, the number of selectors being 131.

4. **Queensland.**—(i) *General.* From 1917 until the passing of “The Lands Acts Amendment Act of 1929” the law prohibited land being made available for any class of selection which gave the selector the right to acquire the freehold title. The 1929 measure, however, amended the law in this respect. A further amendment of the law which took effect on the 1st December, 1932, precludes land being made available under any tenure where a freeholding title is obtainable.

(ii) *Lands Acquired.* During the year 1932 the following new selections were acquired:—Agricultural farms to the number of 213 comprising an area of 56,984 acres, and 59 prickly pear selections of a total area of 40,882 acres, 188 agricultural homesteads of a total area of 27,406 acres, and 814 prickly pear development selections with an area of 908,651 acres. No free homesteads were acquired.

5. **South Australia.**—The land allotted under agreements to purchase during the year 1931–32 was 32,413 acres, comprising Eyre’s Peninsula Railway Lands 7,871 acres, Murray Railway Lands 3,316 acres, Pinnaroo Railway Lands 6,100 acres, Closer Settlement Lands 3,520 acres, Buckleboo Railway Lands 2,436 acres, Soldier Settlement Lands 1,547 acres, and other Crown lands 7,623 acres.

6. **Western Australia.**—During the year ended the 30th June, 1932, the number of holdings for which Crown grants were issued was 1,844, covering free homestead farms 35,671 acres and conditional purchases 465,052 acres. The number of holdings conditionally alienated for the year was 1,126, the total area affected being 531,991 acres, comprising conditional purchases by deferred payments with residence and without residence of 438,094 and 8,387 acres respectively, conditional purchases by direct payments (without residence) 945 acres, and free homestead farms 84,565 acres. Under the heading “Deferred payments (with residence)” are included conditional purchases of grazing lands.

7. **Tasmania.**—During the year 1931, conditional purchases of 18,568 acres were completed. The total area sold conditionally was 9,560 acres, comprising selections for purchase 9,167 acres, auction sales on credit 112 acres, and town and suburban allotments 281 acres. The numbers of applications received and confirmed during the year were 497 and 145 respectively.

## § 5. Leases and Licences under Land Acts.

1. **General.**—Information regarding the methods of obtaining leases and licences of Crown lands in the several States and Territories is given in preceding issues of the Official Year Book (see No. 22, pp. 149–163). A summary respecting land held under leases and licences will be found at the end of this chapter.

2. **New South Wales.**—On the 30th June, 1932, the area of leases and licences under the control of the Department of Lands, the Water Conservation and Irrigation Commission, and the Western Land Board, comprised 109,137,569 acres of Crown lands, compared with 111,977,837 acres at the close of the previous year.

The following table shows the areas which were granted under lease or licence during the year 1931-32, and those held under various descriptions of leases and licences at the end of that year :—

**AREAS TAKEN UP AND OCCUPIED UNDER LEASE OR LICENCE.—NEW SOUTH WALES, 1931-32.(a)**

Particulars.	Area taken up during the year.	Area occupied at end of year.
<i>Areas taken up under Crown Lands Act.</i>		
Outgoing pastoral leases .. .. .	..	134,659
Occupation licences—ordinary .. .. .	} 18,500 {	1,320,211
preferential .. .. .		456,670
Conditional leases .. .. .	43,308	11,631,939
Conditional purchase leases .. .. .	..	167,038
Settlement leases .. .. .	8,521	2,778,111
Improvement leases .. .. .	2,770	412,825
Annual leases .. .. .	48,176	917,100
Scrub leases .. .. .	3,750	144,574
Snow leases .. .. .	31,030	291,103
Special leases .. .. .	108,252	766,623
Inferior land leases .. .. .	..	52,009
Residential leases (on gold and mineral fields) .. .. .	206	8,070
Church and school lands .. .. .	..	11
Permissive occupancies .. .. .	418,086	1,045,276
Prickly-pear leases .. .. .	11,003	71,490
Crown leases .. .. .	208,751	5,852,505
Homestead farms .. .. .	54,787	4,210,279
Homestead selections and grants .. .. .	13,376	1,501,548
Suburban holdings .. .. .	1,330	49,099
Week-end leases .. .. .	..	198
Leases of town lands .. .. .	..	72
Returned soldiers' special holdings .. .. .	..	16,311
Irrigation farms and blocks .. .. .	8,032	248,789
<i>Areas taken up under Western Lands Act.</i>		
Leases .. .. .	574,620	76,623,735
Permissive occupancies .. .. .	13,832	437,324
Total .. .. .	1,568,331	109,137,569

(a) See also § 7 (1) hereinafter.

3. **Victoria.**—During 1931 the area of Crown lands taken up under leases and licences was 190,266 acres, comprising Mallee lands, 131,691 acres, and other lands, 58,575 acres. The area of Crown lands occupied under leases and licences in 1931 was 5,313,637 acres (a decrease of 1,293,993 acres compared with the previous year), comprising grazing licences (exclusive of Mallee) 3,671,071 acres, Mallee lands 1,518,518 acres, auriferous lands (licences) 33,984 acres, swamp lands (leases) 2,109 acres, perpetual leases (other than Mallee) 4,977 acres, and perpetual leases (Mallee) under Land Act 1928, 83,028 acres.

4. **Queensland.**—(i) *General.* In preceding issues of the Official Year Book reference was made to the methods of obtaining leases and licences of Crown lands (see No. 22, pp. 155-7). The Land Acts Amendment Act of 1929, however, amended the law considerably. Further amendments of the law as made in the 1932 Act, taking effect from the 1st December of that year, nullify the provisions in the Act of 1929 relating to freeholding tenures.



(ii) *Areas taken up under Lease or Licence.* The total area taken up under lease or licence during the year 1931 was 47,286,877 acres, made up as follows:—Pastoral leases 41,722,200 acres; occupation licences 2,089,120 acres; grazing farms (all classes), 700,291 acres; grazing homesteads (all classes), 1,441,305 acres; perpetual lease selections 178,380 acres; perpetual lease prickly-pear selections 11,833 acres; agricultural farms 144,618 acres; agricultural homesteads 19,970 acres; prickly-pear selections 42,892 acres; prickly-pear development selections 358,473 acres; perpetual lease prickly-pear development selections 48,113 acres; auction perpetual leases—town 39 acres, suburban 46 acres, and country 3,034 acres; special leases 27,092 acres; leases of reserves 85,511 acres, and prickly-pear leases 413,960 acres.

The following particulars are available respecting leases taken up in 1932:—

Grazing farms .. .. .	475,660 acres.
Grazing homesteads .. .. .	287,566 "
Perpetual lease selections .. .. .	124,858 "
Perpetual lease prickly-pear selections .. .. .	61,487 "
Agricultural farms .. .. .	56,984 "
Prickly-pear selections .. .. .	40,882 "
Agricultural homesteads .. .. .	27,406 "
Prickly-pear development grazing farms .. .. .	1,520,229 "
Prickly-pear development grazing homesteads .. .. .	352,067 "
Prickly-pear development selections .. .. .	908,651 "
Perpetual lease prickly-pear development selections .. .. .	453,458 "

The gross area held at the end of the year 1931 under pastoral tenure was 384,332 square miles.

Two non-competitive perpetual leases were issued during 1931, the total area being 2 roods 8 perches.

The total areas occupied under lease or licence will be found in a table at the end of this chapter.

5. **South Australia.**—The total area leased during 1931–32 under the different forms of lease tenure was 2,902,294 acres, made up as follows:—Perpetual leases—irrigation and reclaimed lands 809 acres, non-irrigable land in irrigation areas 14,487 acres, and other Crown lands 23,769 acres; pastoral leases 2,844,800 acres; and miscellaneous leases—grazing and cultivation 15,133 acres, and forest lands 3,296 acres.

The total areas held under lease are given in the table at the end of this chapter.

6. **Western Australia.**—The number of leases issued by the Lands Department during the year ended 30th June, 1932, was 293, and the total area of leases issued 3,492,831 acres, comprising pastoral leases 3,446,958 acres, special leases 3,760 acres, and leases of reserves 42,113 acres.

The total areas leased are given in the table at the end of this chapter.

7. **Tasmania.**—The area of pastoral leases during the year 1931 was 170,622 acres. The total areas leased are given in the table at the end of this chapter.

8. **Northern Territory.**—The total area held under lease, licence and permit at the 30th June, 1932, was 228,637 square miles, comprising pastoral leases 205,777 square miles, pastoral permits 1,671 square miles, grazing licences 20,645 square miles, agricultural leases 153 square miles and miscellaneous leases, including water leases, 391 square miles.

9. **Federal Capital Territory.**—At the end of the year 1932 the area of acquired lands was 213,830 acres; of lands alienated, 73,080 acres; of lands in process of alienation, 34,098 acres; of leases, 292,480 acres; and unoccupied (including Cotter River catchment area, roads, reserves, etc.), 176,342 acres. These figures are exclusive of 17,920 acres in the Jervis Bay area.

The number of leases granted under the City Area Leases Ordinance 1924–29 to the 30th June, 1932, was 506 representing a capital value of £285,767.

Eight leases for church purposes have been granted under the Church Lands Leases Ordinance 1924-30, which requires the lessees to submit a definite building programme within a specified period.

Eight leases have been granted to date under the Leases (Special Purposes) Ordinance 1925-30, for church and scholastic purposes.

Two hundred and twelve leases granted under the City Area Leases Ordinance have been surrendered or forfeited, representing a capital value of £124,299.

## § 6. Closer Settlement.

1. **General.**—Particulars regarding the methods of acquisition and disposal of land for closer settlement in the several States are given in preceding Year Books (see No. 22, pp. 163-9).

2. **New South Wales.**—Up to the 30th June, 1932, 1,848 estates, including 953 single farm propositions acquired for discharged soldiers or sailors, had been acquired for closer settlement.

The number of farms allotted under the Promotion Sections of the Closer Settlement Acts to date is 3,980, the area 1,823,333 acres, and the amount advanced by the Crown £8,548,352.

The following statement gives particulars of the aggregate areas opened up to the 30th June, 1932 :—

### CLOSER SETTLEMENT AREAS (a).—NEW SOUTH WALES.

To 30th June—	Areas.			Values.		
	Acquired Lands.	Adjoining Crown Lands.	Total.	Cost of Acquired Lands.	Value of Adjoining Crown Lands.	Total.
	Acres.	Acres.	Acres.	£	£	£
1932.. ..	4,026,694	204,416	4,231,110	14,568,595	351,642	14,920,237

(a) Includes 70 long-term leases resumed for closer settlement, but excludes areas acquired for village sites.

The total area is now embraced in 9,173 holdings, comprising 4,128,073 acres, the remaining area being reserved for public purposes (roads, stock routes, schools, etc.).

The following table gives particulars regarding the disposal of the farms by closer settlement purchase at the 30th June, 1932 :—

### CLOSER SETTLEMENT ALLOTMENTS.—NEW SOUTH WALES.

At 30th June—	Farms Allotted to Date.			Total Amount received in respect of Closer Settlement Farms.
	Number.	Area.	Capital Value.	
	No.	Acres.	£	£
1932 .. ..	8,967	4,127,999	16,004,087	7,805,588

3. **Victoria.**—The following statement shows the operations under the provisions of the Closer Settlement Acts to the 30th June, 1932 :—

**CLOSER SETTLEMENT.—VICTORIA.**

(INCLUDING IRRIGATED AREAS.)

To 30th June—	Total Area Acquired by Government.	Total Cost.	How Made Available for Settlement.					Roads and Reserves.	Number of Farms, etc.	Total Receipts (Land and Advances).	Repayments of Principal.	Area Available for Settlement at 30th June.
			Farm Allotments.	Workmen's Homes Allotments.	Agricultural Labourers' Allotments.	Town Allotments. (c)						
	Acres.	£	Acres.	Acres.	Acres.	Acres.	Acres.	No.	£	£	Acres.	
1932	1,174,683	8,684,774	999,715	796	3,509	54,341	3,831	7,843	9,628,801	2,270,089	32,224	

(a) Includes all land sold other than under Conditional Purchase Lease.

4. **Queensland.**—The total area acquired to 30th June, 1932, was 970,778 acres, costing £2,292,881. The following are the particulars of transactions under the Closer Settlement Act up to 30th June, 1932 :—Total area selected 913,039 acres ; number of selections 3,050 ; agricultural farms 2,154 ; unconditional selections 257 ; perpetual lease selections 547 ; prickly-pear selections 8 ; perpetual lease prickly-pear selections 7 ; area sold by auction 13,001 acres ; and number of settlement farm leases 77.

5. **South Australia.**—The following table shows the area of land acquired for the purposes of closer settlement, and the manner in which it had been dealt with to the 30th June, 1932 :—

**CLOSER SETTLEMENT.—SOUTH AUSTRALIA.**

To 30th June—	Area of Lands Repurchased.	Agreements with Covenants to Purchase.	Total Area Leased as Homestead Blocks.		Perpetual Leases.	Miscellaneous Leases.	Sold.	Remainder Un-occupied (including Roads and Land in Irrigation Areas).
			Right of Purchase.	Perpetual Lease.				
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1932 ..	786,625	523,313	321	1,240	31,775	80	196,121	33,775

The total area repurchased at 30th June, 1932, was 786,625 acres. The purchase money was £2,532,440. Of the total area, 752,850 acres have been allotted to 2,739 persons, the average area to each being 275 acres.

6. **Western Australia.**—The total area acquired for closer settlement up to the 30th June, 1932, was 561,765 acres, costing £575,368. Of this area, 24,420 acres have been set aside for roads, reserves, etc., leaving a balance of 537,345 acres available for selection. Particulars of operations under the Act for the year ending 30th June, 1932, are as follow :—Area selected during the year 5,402 acres ; number of farms, etc., allotted to date 881 ; total area occupied to date 494,477 acres ; balance available for selection 42,868 acres ; and total revenue £580,063.

7. *Tasmania*.—Up to the 30th June, 1932, 36 areas had been opened up for closer settlement. The total purchase money paid by the Government was £366,099, and the total area acquired amounted to 101,231 acres, including 10,000 acres of Crown lands.

8. *Summary*.—The following table gives particulars of operations under the Closer Settlement Acts at the 30th June, 1932 :—

**CLOSER SETTLEMENT.—TOTAL AREAS ACQUIRED AND ALLOTTED AT  
30th JUNE, 1932.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Area acquired (a) acres	4,231,110	1,174,683	970,778	786,625	561,765	101,231	7,826,192
Purchase price (b) £	14,568,595	8,629,469	2,292,881	2,532,440	575,368	366,099	28,964,852
Farms, etc., { No.	8,967	(c) 7,843	3,050	2,739	881	310	23,790
alotted { acres	4,127,999	1,138,628	913,039	752,850	494,477	100,231	7,527,224

(a) Includes Crown lands—New South Wales, 204,416 acres; Victoria, 242,609 acres; Tasmania, 10,000 acres. (b) Private lands only. (c) Includes 691 allotments of a total area of 80,267 acres granted to discharged soldiers under the Discharged Soldiers Settlement Acts.

### § 7. Leases and Licences under Mining Acts.

1. *General*.—Information regarding the various forms of leases and licences under Mining Acts in the several States and the Northern Territory is given in preceding issues of the Official Year Book (see No. 22, pp. 170-7).

2. *New South Wales*.—The following table gives particulars of operations for the year 1931-32 :—

**AREAS TAKEN UP UNDER MINING ACTS.—NEW SOUTH WALES, 1931-32.**

Purposes for which Issued or Occupied.	Areas Taken up during Year.		Total Areas Occupied at End of Year.	
	Acres.		Acres.	
Gold-mining .. .. .	..	..	..	..
Mining for other minerals .. .. .	..	..	..	..
Authorities to prospect .. .. .	..	..	..	..
Other purposes .. .. .	..	..	..	..
Total	..	..	..	..
			108,763	324,196

3. *Victoria*.—During the year 1932, leases, licences, etc., were issued covering an area of 88,125 acres, the rent, fees, etc., for which amounted to £3,641. The area occupied at the end of the year was 144,157 acres.

4. Queensland.—During the year 1932, the number of miners' rights issued was 10,187, and of business licences 11. The following table gives particulars regarding the areas of lands taken up under lease or licence, and the total areas occupied for the year 1932. In addition, an area estimated at 25,000 acres was at the end of 1932 held under miners' rights and dredging claims.

AREAS TAKEN UP UNDER MINING ACTS.—QUEENSLAND, 1932.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	6,152	7,771
Mining for other minerals .. .. .	2,006	25,854
Coal-prospecting licences .. .. .	1,160	1,160
Miners' homestead leases .. .. .	9,290	330,570
Petroleum-prospecting permits .. .. .	209,551	343,435
<b>Total .. .. .</b>	<b>228,159</b>	<b>708,790</b>

5. South Australia.—The following table gives particulars of operations for the year 1932 :—

AREAS TAKEN UP UNDER MINING ACTS.—SOUTH AUSTRALIA, 1932.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining leases .. .. .	345	1,539
Mineral and miscellaneous leases .. .. .	793	35,367
Claims .. .. .	8,437	7,971
Search licences and permits .. .. .	51,840	110,080
Occupation licences .. .. .	7	57
<b>Total .. .. .</b>	<b>61,332</b>	<b>155,014</b>

6. Western Australia.—The following table gives particulars of operations for the year 1932, the figures being exclusive of holdings under miners' rights and mineral oil licences. Of the areas shown as taken up in 1932, the area under lease was 3,048 acres for gold-mining, 48 for mining for other minerals, and 108 for miners' homesteads—a total of 3,204 acres. The balance was taken up under licences.

AREAS TAKEN UP UNDER MINING ACTS.—WESTERN AUSTRALIA, 1932.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	42,443	36,937
Mining for other minerals .. .. .	4,132	52,605
Other purposes .. .. .	201	34,399
<b>Total .. .. .</b>	<b>46,776</b>	<b>123,941</b>

7. *Tasmania*.—During the year 1932, the number of leases issued was 274, of which the more important were 126 for gold-mining, covering 1,946 acres; and 50 for tin, covering 1,211 acres. The following table gives particulars of operations for the year 1932 :—

AREAS TAKEN UP UNDER MINING ACTS.—TASMANIA, 1932.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	2,081	2,495
Mining for other minerals .. .. .	4,844	20,347
Licences to search for coal or oil .. .. .	320	320
Other purposes .. .. .	211	2,448
<b>Total .. .. .</b>	<b>7,456</b>	<b>25,610</b>

8. *Northern Territory*.—At the 30th June, 1932, there existed 26 mineral leases comprising 566 acres, 20 gold-mining leases comprising 728 acres, and 145 protected mining lease applications comprising 3,324 acres. In addition, 2 exclusive prospecting licences covering approximately 6 square miles were issued.

9. *Summary*.—The following table shows the areas under leases and licences for mining purposes and the total areas occupied for mining purposes for the year 1932 :—

CROWN LANDS, LEASES AND LICENCES FOR MINING PURPOSES.

Year.	N.S.W. (a)	Victoria.	Q'land.(b)	S. Aust.(b)	W. Aust.(c)	Tas. (b)	Total. (d)
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AREAS FOR WHICH LEASES AND LICENCES ISSUED DURING YEAR.

1932 ..	Acres. 108,763	Acres. 88,125	Acres. 228,159	Acres. 61,332	Acres. 46,776	Acres. 7,456	Acres. 540,611
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TOTAL AREAS OCCUPIED AT END OF YEAR.

1932 ..	324,196	144,157	708,790	155,014	123,941	25,610	1,481,708
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(a) Year 1931-32. (b) Exclusive of lands held under miners' rights only. (c) Exclusive of holdings under miners' rights and mineral oil licences. (d) Exclusive of Northern Territory, see 8 above.

### § 8. Settlement of Returned Soldiers and Sailors.

1. **General.**—Information in regard to the methods adopted in each State for providing land for the settlement of returned soldiers and sailors, together with the conditions under which such land could be acquired, is given in earlier issues of the Official Year Book (see No. 18, pp. 187–189). Further reference to the settlement on the land of returned soldiers and sailors, and in particular to the losses incurred in connexion therewith, will be found in Chapter “Defence,” herein.

Particulars respecting the position of soldier settlement in each State at the latest available date are, however, given in the sub-sections immediately following.

2. **New South Wales.**—At the 30th June, 1932, the area set apart exclusively for soldiers was 9,753,261 acres, of which 1,710,272 acres comprised acquired land purchased at a cost of £8,113,956. The number of settlers to whom farms, etc., had been allotted up to the 30th June, 1932, was 9,492. Farms, etc., occupied at that date numbered 5,511 with an area of 7,915,269 acres, of which 6,326,622 acres were Crown lands (including 4,001,217 acres in the Western Division taken up under the Western Lands Act), 1,499,930 acres of acquired lands, and 88,717 acres within Irrigation Areas.

3. **Victoria.**—At the 30th June, 1932, the area acquired or set apart for soldier settlement was 2,510,049 acres, of which 1,763,238 acres comprised private land purchased at a cost of £13,361,211. Up to the 30th June, 1932, the number of settlers to whom farms, etc., had been allotted was 10,637, and the number of farms, etc., allotted was 9,671 (including 727 farms originally purchased for Closer Settlement purposes) containing 2,421,700 acres. In addition, 773 share-farmers and holders of leasing agreements and private land had received assistance. The number of farms, etc., occupied at the 30th June, 1932, was 9,174 (including 689 originally purchased for Closer Settlement) containing 2,340,798 acres.

4. **Queensland.**—At the 30th June, 1929, the area acquired or set apart for soldier settlement was 577,633 acres, of which 41,101 acres comprised private land, purchased at a cost of £270,480. The number of farms occupied was 1,148, containing 440,992 acres. Some of these selections were acquired under the ordinary provisions of the Land Act, and do not include areas specially set apart for soldiers.

As special records are not now kept respecting the areas held by discharged soldier settlers later information cannot be given.

5. **South Australia.**—At the 30th June, 1932, the area of land acquired or set apart for soldier settlement was 1,336,612 acres, of which 1,202,653 acres comprised private land purchased at a cost of £3,863,572. These figures are exclusive of mortgages discharged, £494,770 on 360,403 acres representing 300 farms, etc., and 314 settlers. The number of soldiers to whom assistance had been granted under the Discharged Soldiers' Settlement Acts up to the 30th June, 1932, was 4,180, and the area of farms, etc. (including mortgages discharged), on which assistance had been granted was 2,740,484 acres. At the 30th June, 1932, farms, etc., occupied numbered 2,320, containing 2,107,022 acres.

6. **Western Australia.**—At the 30th June, 1932, the area of land acquired or set apart for soldier settlement was 14,287,643 acres, of which 345,110 acres comprised private land purchased at a cost of £605,076. Up to the 30th June, 1932, assistance had been given to 5,213 returned soldiers, and the Agricultural Bank held 3,647 properties as security for advances. The area held, including pastoral leases, was approximately 25,864,000 acres, and advances approved amounted to £6,240,727. The number of farms, etc., occupied at the 30th June, 1932, was 2,537.

7. **Tasmania.**—At the 30th June, 1932, the area acquired or set apart for soldier settlement was 339,592 acres, of which 268,801 acres comprised private land purchased at a cost of £2,012,326. Up to the 30th June, 1932, the number of settlers to whom farms, etc., had been allotted was 2,378, and the number of farms, etc., allotted 2,204 containing 339,592 acres. The number of farms, etc., occupied at the 30th June, 1932, was 2,157 containing 327,298 acres.

8. **Summary.**—The following table gives a summary of the area acquired, the purchase price thereof, the number of settlers assisted, and the number and area of farms occupied in all the States to the 30th June, 1932 :—

**SOLDIER SETTLEMENT.—AREAS ACQUIRED, SETTLERS ASSISTED AND FARMS OCCUPIED—30th JUNE, 1932.**

Particulars.	New South Wales.	Victoria.	Queensland.(a)	Sth. Australia.	Western Australia.	Tasmania.	Total.
Area acquired or set apart—							
(i) Private land acquired acres	1,710,272	1,763,238	41,101	61,202,653	345,110	268,801	5,331,175
(ii) Crown lands set apart acres	8,042,989	746,811	536,532	133,959	13,942,533	70,791	23,473,615
Total land acquired or set apart .. acres	9,753,261	2,510,049	577,633	1,336,612	14,287,643	339,592	28,804,790
Price paid by Government for private land acquired £	8,113,956	13,361,211	270,480	63,863,572	605,076	2,012,326	28,226,621
Number of settlers to whom farms, etc., had been allotted up to the 30th June, 1932 ..	9,492 (c)	10,637	(d)	(e) 4,180	5,213	2,378	(d)
Farms, etc., occupied at the 30th June, 1932 ..	5,511 (f)	9,174	1,148	2,320	2,537	2,157	22,847
acres	7,915,269	2,340,798	440,992	2,107,022	(d)	327,298	(d)

(a) At 30th June, 1929; later information not available. (b) Excludes mortgages discharged £494,770 on 360,403 acres representing 300 farms, etc., and 314 settlers. (c) In addition 773 share farmers and holders of leasing agreements and private land have received assistance. (d) Not available. (e) Number of soldiers to whom assistance had been granted under the Discharged Soldiers Settlement Acts. (f) Includes 689 farms originally purchased for Closer Settlement purposes.

### § 9. Tenure of Land by Aliens.

Information regarding the terms and conditions under which land can be held by aliens is contained in earlier issues of the Official Year Book (see No. 18, pp. 190-1).

### § 10. Advances to Settlers.

1. **General.**—A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory will be found in preceding issues of the Official Year Book (see No. 22, pp. 179-186).

2. **New South Wales.**—The following table gives particulars respecting advances, etc., to 30th June, 1932 :—

**ADVANCES TO SETTLERS.—NEW SOUTH WALES.**

Particulars.	Advances made during 1931-32.	Total Advances at 30th June, 1932.	Amount outstanding at 30th June, 1932.
	£	£	£
Government Savings Bank Advances ..	137,012	27,100,392	13,823,874
Soldier Settlement Advances ..	67,532	7,664,594	3,911,214
Advances for Purchase of Wire Netting ..	11,395	1,089,782	372,254
Advances to Necessitous Farmers ..	242,095	5,239,848	1,196,602
Advances to Civilian Settlers on Irrigation Areas ..	28,976	336,468	226,218
Shallow Boring Advances ..	20,229	632,495	257,687
Total ..	507,239	42,063,579	19,787,849



3. Victoria.—The following table gives particulars respecting advances, etc., to 30th June, 1932 :—

ADVANCES TO SETTLERS.—VICTORIA.

Authority Making Advances.	Advances made to—	Advances made during 1931-32.	Total Advances at 30th June, 1932.	Amount outstanding at 30th June, 1932.
		£	£	£
Crédit Foncier	Civilians .. ..	70,750	10,108,085	4,967,908
	Discharged soldiers ..	2,360	832,176	558,426
Closer Settlement Board	Closer Settlement settlers	381,889	13,711,942	9,816,017
	Soldier settlers .. ..	196,774	22,721,011	17,857,301
Board of Land and Works	Cultivators of land ..	247,996	971,327	585,817
Treasurer .. ..	Cool stores, canneries, etc.	..	615,182	361,676
Total .. ..	.. ..	899,769	48,959,723	34,147,145

4. Queensland.—The following table gives particulars of advances, etc., to 30th June, 1932 :—

ADVANCES TO SETTLERS.—QUEENSLAND.

Act under which Advances were made.	Advances made during Year 1931-32.	Total Advances made to 30th June, 1932.	Amount outstanding at 30th June, 1932.
	£	£	£
Agricultural Bank Acts .. ..	285,422	6,289,367	2,375,839
Discharged Soldiers' Settlement Act (a) .. ..	13,634	2,415,379	1,116,677
Water Facilities .. ..	10,326	80,339	71,378
Wire Netting, Marsupial Proof Fencing, &c. ..	17,690	764,936	470,794
Seed Wheat .. ..	1,641	(b) 61,893	8,994
Drought Relief .. ..	..	67,381	44,403
Total .. ..	328,713	9,679,295	4,088,085

(a) Includes advances to group settlements through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest to 30th June, 1932.

5. South Australia.—The following table gives particulars respecting advances, etc., to 30th June, 1932 :—

ADVANCES TO SETTLERS.—SOUTH AUSTRALIA.

Particulars.	Advances made during 1931-32.	Total Advances at 30th June, 1932.	Amount outstanding at 30th June, 1932.
	£	£	£
Department of Lands—			
Advances to soldier settlers .. ..	26,824	5,330,827	3,837,234
Advances to blockholders .. ..	..	41,451	68
Advances for sheds and tanks .. ..	..	75,693	59,474
Advances in drought-affected areas .. ..	2,209	2,043,510	1,207,545
Advances under Farmers Relief Acts (b) ..	484,629	576,223	265,392
Advances under Closer Settlement Acts ..	16,358	2,424,647	1,527,417
Advances under Agricultural Graduates Settlement Act .. ..	..	22,563	22,204
Irrigation Commission—			
Civilians .. ..	107	257,378	139,501
Soldier settlers .. ..	2,949	(a) 1,130,654	1,041,501
State Bank of South Australia .. ..	8,068	4,738,512	1,304,484
Advances to settlers for improvements ..	5,050	816,349	443,349
Advances under Vermin and Fencing Acts	5,715	1,288,963	469,398
Advances under Loans to Producers Act ..	1,038	258,507	226,832
Total .. ..	552,947	19,005,277	10,544,399

(a) Since June, 1927, a considerable sum has been written off advances to soldier settlers under Section 8 of the Discharged Soldiers' Settlement Relief Act 1925. (b) Previously shown under Advances in drought-affected areas.

6. **Western Australia.**—The following table gives particulars respecting advances, etc., to 30th June, 1932 :—

**ADVANCES TO SETTLERS.—WESTERN AUSTRALIA.**

Particulars.	Advances made during Year 1931-32.	Total Advances at 30th June, 1932.	Amount outstanding at 30th June, 1932 (inclusive of interest).
	£	£	£
Development loans .. .. .	201,609	8,932,437	6,119,178
Soldier settlement loans .. .. .	11,911	5,989,812	5,082,105
Advances to rural industries .. .. .	..	31,017	40,481
Cropping advances .. .. .	11,223	13,048,515	1,834,129
Group Settlement advances .. .. .	69,693	2,167,584	2,508,657
<b>Total .. .. .</b>	<b>294,436</b>	<b>30,169,365</b>	<b>15,584,550</b>

7. **Tasmania.**—The following table gives particulars respecting advances, etc., to 30th June, 1932 :—

**ADVANCES TO SETTLERS.—TASMANIA.**

Authority making Advances.	Particulars.	Advances made during 1931-32.	Total Advances to 30th June, 1932.	Amount outstanding at 30th June, 1932.
		£	£	£
Agricultural Bank ..	State Advances Act and Rural Credits	23,094	469,572	313,672
..	Orchardists' Relief, 1926 .. .. .	..	46,832	11,123
..	Unemployed (Assistance to Primary Producers) Relief Act ..	13,699	29,931	27,142
..	Soldier Settlers ..	4,627	705,477	200,913
..	Closer Settlers ..	2,108	33,839	17,713
Agricultural Department .. .. .	Fruit Growers ..	..	1,897	543
<b>Total .. .. .</b>	<b>.. .. .</b>	<b>43,528</b>	<b>1,287,548</b>	<b>571,106</b>

8. **Northern Territory.**—During the financial year 1931-32 the sum of £571 was advanced, making the total amount advanced to 30th June, 1932, £22,355 (approximately). The balance outstanding at 30th June, 1932, including interest, was £16,178.

9. **Summary of Advances.**—The following table gives a summary for each State to the 30th June, 1932 :—

**ADVANCES TO SETTLERS.—AUSTRALIA.**

State.	Advances made during 1931-32.	Total Advances to 30th June, 1932.	Amount outstanding at 30th June, 1932.
	£	£	£
New South Wales .. .. .	507,239	42,063,579	19,787,849
Victoria .. .. .	899,769	48,959,723	34,147,145
Queensland .. .. .	328,713	9,679,295	4,088,085
South Australia .. .. .	552,947	19,005,277	10,544,399
Western Australia .. .. .	294,436	30,169,365	15,584,550
Tasmania .. .. .	43,528	1,287,548	571,106
Northern Territory .. .. .	571	22,355	16,178
<b>Total .. .. .</b>	<b>2,627,203</b>	<b>151,187,142</b>	<b>84,739,312</b>

## § 11. Alienation and Occupation of Crown Lands.

1. **General.**—The figures given in the previous parts of this chapter show separately the areas alienated, in process of alienation, or occupied under various tenures. The following tables set out in summarized form the position in regard to the tenure of land in each State, in the Northern Territory, and in the Federal Capital Territory during the latest year for which information is available. The area unoccupied includes roads, permanent reserves, forests, etc. In some cases, lands which are permanently reserved from alienation are occupied under leases and licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

2. **New South Wales.**—At the 30th June, 1932, of the total area of New South Wales, 22.4 per cent. had been alienated absolutely, 11.9 per cent. was in process of alienation, 55.2 per cent. was held under leases and licences, and the remaining 10.5 per cent. was unoccupied.

The following table gives particulars for the year ended 30th June, 1932 :—

### ALIENATION AND OCCUPATION OF CROWN LANDS.—NEW SOUTH WALES, 1931-32.(a)

Particulars.	Acres.	Particulars.	Acres.
<i>1. Alienated.</i>		<i>2. In Process of Alienation.</i>	
Granted and sold prior to 1862 ..	7,146,579	Conditional purchases .. ..	20,336,336
Sold by auction and other sales, 1862 to date .. ..	15,016,290	Closer settlement purchases .. ..	2,756,048
Conditionally sold, 1862 to date	24,347,664	Soldiers' group purchases .. ..	422,668
Granted under Volunteer Land Regulations, 1867 to date .. ..	172,198	Other forms of sale .. ..	24,779
Granted for public and religious purposes .. ..	259,562	<b>Total .. ..</b>	<b>23,539,831</b>
	46,942,293	<i>3. Held under Leases and Licences.</i>	
Less lands resumed or reverted to Crown .. ..	2,580,349	Total under Lands Department, Water Conservation and Irriga- tion Commissioner, and Western Lands Commissioners ..	109,137,569
		Mineral and auriferous leases and licences (Mines Department) ..	324,196
<b>Total .. ..</b>	<b>44,361,944</b>	<b>Total .. ..</b>	<b>109,461,765</b>
		<i>4. Unoccupied (b) (approximate)</i>	20,669,740

Area of State—198,036,500 acres.

(a) Exclusive of Lord Howe Island, 3,220 acres. (b) Of this area only 4,973,560 acres are available for selection, the balance being comprised within reservations for various public purposes roads, and river and lake surfaces.

3. **Victoria.**—The total area of the State of Victoria is 56,245,760 acres, of which 46.9 per cent. had been alienated absolutely up to the end of the year 1931: 12.8 per cent. was in process of alienation under deferred payments and closer settlement schemes; 9.6 per cent. was occupied under leases and licences; while 30.7 per cent. was unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—VICTORIA, 1931.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> .. .. .	26,383,623	3. <i>Leases and Licences held—</i>	
2. <i>In Process of Alienation—</i>		Under Lands Department—	
Exclusive of Mallee and Closer		Perpetual Leases .. .. .	88,005
Settlement Lands .. .. .	1,695,507	Other Leases and Licences	46,120
Mallee Lands (exclusive of		Temporary (Yearly) Graz-	
Closer Settlement Lands) ..	4,805,719	ing Licences .. .. .	5,189,589
Closer Settlement Lands ..	666,542	Under Mines Department ..	80,000
Village Settlements .. .. .	29	Total .. .. .	5,403,714
Tota .. .. .	7,167,797	4. <i>Occupied by the Crown or</i>	
		<i>Unoccupied (a)</i> .. .. .	17,290,626

Total area of State—56,245,760 acres.

(a) These Crown lands comprise the following acreage :—Permanent forests (under Forest Acts) 3,942,163; timber reserves (under Forest Acts) 735,889; State forests and timber reserves (under Land Act) 330,135; water reserves 312,723; reserves for agricultural colleges 87,003; reserves in the Mallee 410,000; other reserves 367,719; roads 1,794,218; water frontages, beds of rivers, lakes, etc., unsold land in cities, towns and boroughs 3,443,319; and other lands (unoccupied) 5,867,457.

4. **Queensland.**—The total area of this State is 429,120,000 acres, of which, on the 31st December, 1931, 4.4 per cent. was alienated absolutely; 1.8 per cent. was in process of alienation; and 76.0 per cent. was occupied under leases and licences. The remainder (17.8 per cent.) was either unoccupied or held as reserves, or for roads.

The distribution is shown in the following table :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—QUEENSLAND, 1931.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated Absolutely—</i>		3. <i>Occupied under Leases and</i>	
By Purchase .. .. .	18,859,187	<i>Licences—</i>	
Without Payment .. .. .	88,787	Pastoral Leases .. .. .	222,415,280
Total .. .. .	18,947,974	Occupation Licences .. .. .	11,271,120
2. <i>In Process of Alienation</i> ..	7,765,825	Grazing Farms and Homesteads	75,311,100
		Leases—Special Purposes ..	949,668
		Under Mines Department ..	366,015
		Perpetual Lease Selections ..	3,578,884
		Auction Perpetual Leases ..	14,316
		Prickly-pear Leases .. .. .	12,286,120
		Total .. .. .	326,192,503
		4. <i>Reserves, Surveyed Roads and</i>	
		<i>Surveyed Stock Routes (a)</i> ..	20,607,279
		5. <i>Unoccupied</i> .. .. .	55,606,419

Total area of State—429,120,000 acres.

(a) Includes reserves of a total area of 17,660,279 acres, comprising timber 3,418,572 acres, State forests and national parks 2,065,831 acres, aboriginal 6,241,916 acres, and general 5,933,960 acres; and streets, surveyed roads and surveyed stock routes 2,947,000 acres.

5. **South Australia.**—The area of the State of South Australia is 243,244,800 acres, and at the end of the year 1932, 5.0 per cent. was alienated absolutely; 1.7 per cent. in process of alienation; 47.6 per cent. occupied under leases and licences; and 45.7 per cent. unoccupied.

The subjoined table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—SOUTH AUSTRALIA,  
1932.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> —		3. <i>Held under Lease and Licence</i> —	
Sold .. .. .	11,844,472	Right of Purchase Leases ..	1,638,314
Granted for Public Purposes	233,244	Perpetual Leases, including	
		Irrigation Leases ..	15,531,506
		Pastoral Leases ..	96,743,125
		Other Leases and Licences ..	1,648,331
		Mining Leases and Licences	155,014
Total .. .. .	12,077,716	Total .. .. .	115,716,290
2. <i>In Process of Alienation</i> ..	4,238,241	4. <i>Area Unoccupied (a)</i> ..	111,212,553

Total area of State—243,244,800 acres.

(a) Includes surveyed roads, railways, and other reserves, 16,438,536 acres (of which 14,016,000 acres comprises an aboriginal reserve in the north-west corner of the State); salt water lakes and lagoons, 7,680,000 acres; and fresh water lakes, 224,000 acres.

6. **Western Australia.**—The total area of Western Australia is 624,588,800 acres, of which, at the 30th June, 1932, 2.5 per cent. was alienated absolutely; 3.3 per cent. was in process of alienation; while 33.0 per cent. was occupied under leases and licences issued either by the Lands or the Mines Departments. The balance of 61.24 per cent. was unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—WESTERN AUSTRALIA  
1931-32.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated Absolutely</i> ..	15,484,758	3. <i>Leases and Licences in Force</i> —	
2. <i>In Process of Alienation</i> —		(i) Issued by Lands Department—	
Midland Railway Concessions	54,800	Pastoral Leases ..	203,930,853
Free Homestead Farms ..	817,228	Special Leases ..	19,445
Conditional Purchases ..	6,363,844	Leases of Reserves ..	881,955
Selections from the late W.A. Company	5,297	Residential Lots ..	5,512
Selections under the Agricultural Lands Purchase Act	494,477	(ii) Issued by Mines Department—	
Special Occupation Leases and Licences ..	300	Gold-mining Leases ..	8,797
Homestead or Grazing Leases	12,625,421	Mineral Leases ..	45,322
Poison Land Leases or Licences	23,138	Miners' Homestead Leases ..	31,344
Village Allotments ..	..	(iii) Issued by Forests Department—	
Working-men's Blocks ..	47	Timber Leases ..	3,908
		Timber Permits ..	1,235,582
Total .. .. .	20,384,552	Total .. .. .	206,162,718
		4. <i>Area Unoccupied (a)</i> ..	382,556,772

Total area of State—624,588,800 acres.

(a) These Crown lands comprise the following :—State forests, 2,967,912 acres; timber reserves, 1,430,362 acres; other reserves, 35,935,068 acres; and vacant Crown land, 342,223,430 acres.

7. **Tasmania.**—At the end of the year 1931, 34.2 per cent. of the total area had been alienated absolutely; 3.1 per cent. was in process of alienation; 25.5 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement, or occupied or reserved by the Crown; the remainder (37.2 per cent.) was unoccupied.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS.—TASMANIA, 1931.**

Particulars.	Acres.	Particulars.	Acres.
1. Alienated Absolutely .. ..	5,739,827	3. Leases and Licences—continued.	
2. In Process of Alienation ..	516,795	(i) Issued by Lands Department continued.	
3. Leases and Licences—		Soldier Settlement ..	117,898
(i) Issued by Lands Department		Other Leases ..	127,198
Islands ..	105,144	(ii) Issued by Mines Department	28,884
Ordinary Leased Land ..	1,951,263	Total .. ..	2,655,179
Land Leased for Timber	243,123	4. Area Occupied by the Crown or	
Closer Settlement ..	81,669	Unoccupied (a) .. ..	7,866,199

Total area of State—16,778,000 acres.

(a) Comprises the following :—Reserves, 1,600,000 acres, including 1,300,000 acres for timber; land occupied by Commonwealth and State Departments, 18,100 acres; the balance (6,248,099 acres) being unoccupied and unreserved.

8. Northern Territory.—The area of Northern Territory is 335,116,800 acres, of which, at the end of 1932, only 0.14 per cent. was alienated absolutely; 55.94 per cent. was held under leases and licences; while the remaining 43.92 per cent. was unoccupied.

The following shows the mode of occupancy of areas at the 30th June, 1932 :—

**ALIENATION AND OCCUPATION OF CROWN LANDS.—NORTHERN TERRITORY, 1932.**

Particulars.	Acres.
1. Alienated .. .. .	477,861
2. Leased—	
Right of purchase .. .. .	..
Pastoral .. .. .	145,980,242
Other leases, licences, reserves and mission stations ..	41,488,311
Total .. .. .	187,468,553
3. Unoccupied .. .. .	147,170,386
4. Total area .. .. .	335,116,800

9. Federal Capital Territory.—Particulars of the alienation and occupation of Crown lands in the Territory (exclusive of Jervis Bay area) for the year 1932 are as follows :—Alienated 73,080 acres; in process of alienation 34,098 acres; leased 292,480 acres; and unoccupied 176,342 acres. The area of acquired lands was 213,830 acres. The total area of the Territory (exclusive of Jervis Bay area, 17,920 acres) is 576,000 acres.

Alienated land in 1932 comprised 12.7 per cent. of the total area, land in process of alienation 5.9 per cent., land held under lease 50.8 per cent., and unoccupied land 30.6 per cent. of the total area.

**12. Classification of Alienated Holdings According to Size.**

The classification of private holdings according to their area is of interest chiefly in relation to the efforts made by the several States in recent years to promote settlement on the land on blocks of suitable size, especially by means of the Closer Settlement Acts.

The following table gives particulars of the number and areas of holdings of alienated land and land in process of alienation at the latest date for which the information has been compiled. A similar classification for the year 1924-25 will be found in Official Year Book No. 22, p. 192.

**CLASSIFICATION OF HOLDINGS (ONE ACRE AND OVER) IN AREA SERIES, 1928-29.**

Size of Holdings.	N.S.W. (a)	Victoria.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Total (b)
NUMBER.							
1 and under 50 acres	14,190	19,791	6,202	4,812	3,164	3	48,162
50 " 100 "	7,527	8,388	1,776	874	2,108	1	20,674
100 " 500 "	25,719	25,979	5,907	3,093	4,779	19	65,496
500 " 1,000 "	11,394	12,449	4,570	3,204	726	18	32,361
1,000 " 5,000 "	10,948	6,929	4,632	7,768	775	15	31,067
5,000 " 10,000 "	1,255	297	133	440	146	3	2,274
10,000 " 20,000 "	524	90	33	116	67	1	831
20,000 " 50,000 "	214	15	8	23	29	..	289
50,000 and over ..	59	..	..	7	5	..	71
Total ..	71,830	73,938	23,261	20,337	11,799	60	201,225

AREA.

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1 and under 50 acres	322,082	374,677	113,921	63,130	58,351	91	932,252
50 " 100 "	584,269	601,533	143,072	72,827	147,259	65	1,549,025
100 " 500 "	6,739,650	6,384,766	1,745,181	746,982	1,095,434	5,267	16,717,280
500 " 1,000 "	8,056,717	8,828,038	3,409,573	2,756,642	593,506	12,778	23,657,254
1,000 " 5,000 "	21,865,261	11,858,810	8,277,929	16,394,494	1,600,262	30,050	60,026,815
5,000 " 10,000 "	8,587,485	2,047,281	912,394	3,003,200	1,017,754	21,354	15,589,468
10,000 " 20,000 "	7,240,069	1,196,469	457,244	1,588,720	924,784	12,600	11,419,886
20,000 " 50,000 "	6,374,610	390,876	188,305	617,972	812,306	..	8,384,069
50,000 and over ..	5,337,288	..	..	519,326	383,633	..	6,240,247
Total ..	65,107,431	31,682,459	15,247,619	25,763,293	6,633,289	82,205	144,516,296

(a) Year 1924-25. (b) Information not available for Queensland and the Northern Territory.

**§ 13. Present Position of Land Settlement.**

**i. Condition of Public Estate.**—The position in regard to land settlement in each State and Territory and in Australia as a whole in the years 1929, 1930 and 1931 is shown in the table hereunder.

During the past ten years, the area alienated absolutely in the whole of Australia increased by 12,719,201 acres, and that in process of alienation by 7,862,594 acres, or a total of 20,581,795 acres during the decade, while the area leased decreased from 962,501,560 acres in 1921 to 961,703,608 acres in 1931.

## AREAS ALIENATED, IN PROCESS OF ALIENATION, HELD UNDER LEASE OR LICENCE, AND UNOCCUPIED.

Year.	Alienated.		In Process of Alienation.		Held under Lease or Licence.		Occupied by the Crown or Unoccupied.	
	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.
<b>NEW SOUTH WALES (a).—AREA, 198,036,500 ACRES.</b>								
1929 <sup>e</sup>	643,491,984	21.96	23,153,865	11.69	114,164,082	57.65	17,223,349	8.70
1930 <sup>e</sup>	643,750,361	22.09	23,680,891	11.96	113,692,127	57.41	16,909,901	8.54
1931 <sup>e</sup>	644,074,823	22.26	23,785,072	12.01	112,285,734	56.70	17,887,651	9.03
<b>VICTORIA.—AREA, 56,245,760 ACRES.</b>								
1929	26,204,928	46.59	7,918,032	14.08	7,539,476	13.40	14,583,324	25.93
1930	26,316,492	46.79	7,280,000	12.94	6,659,107	11.84	15,990,161	28.43
1931	26,383,623	46.91	7,167,797	12.74	5,403,714	9.61	17,290,626	30.74
<b>QUEENSLAND.—AREA, 429,120,000 ACRES.</b>								
1929	18,486,184	4.31	5,911,240	1.38	317,763,259	74.05	86,959,317	20.26
1930	18,731,295	4.36	6,860,667	1.60	315,388,957	73.50	88,139,081	20.54
1931	18,947,974	4.42	7,765,825	1.81	326,192,593	76.01	76,213,698	17.76
<b>SOUTH AUSTRALIA.—AREA, 243,244,800 ACRES.</b>								
1929	12,004,959	4.94	3,933,568	1.62	118,249,913	48.61	109,056,360	44.83
1930	12,044,877	4.95	4,175,985	1.72	116,453,402	47.87	110,570,536	45.46
1931	12,058,125	4.96	4,314,352	1.77	113,257,265	46.56	113,615,058	46.71
<b>WESTERN AUSTRALIA (a).—AREA, 624,588,800 ACRES.</b>								
1929	13,594,254	2.18	21,804,506	3.49	243,724,065	39.02	345,465,975	55.31
1930	14,506,064	2.32	21,533,054	3.45	245,385,249	39.29	343,164,433	54.94
1931	14,984,035	2.40	21,224,804	3.40	256,620,655	41.09	331,759,306	53.11
<b>TASMANIA.—AREA, 16,778,000 ACRES.</b>								
1929	5,698,697	33.97	560,070	3.34	2,817,535	16.79	7,701,698	45.90
1930	5,721,259	34.10	541,653	3.23	2,772,097	16.52	7,742,991	46.15
1931	5,739,827	34.21	516,795	3.08	2,655,179	15.83	7,866,199	46.88
<b>NORTHERN TERRITORY.—AREA, 335,116,800 ACRES.</b>								
1929	477,853	0.14	..	..	148,905,274	44.44	185,733,673	55.42
1930	477,853	0.14	..	..	148,287,330	44.25	186,351,617	55.61
1931	477,854	0.14	..	..	145,000,000	43.27	189,638,946	56.59
<b>FEDERAL CAPITAL TERRITORY.—AREA, 601,580 ACRES.</b>								
1929 <sup>c</sup>	46,968	8.05	60,844	10.42	288,919	49.50	186,929	32.03
1930 <sup>c</sup>	66,904	11.46	39,977	6.85	279,032	47.81	197,747	33.88
1931 <sup>c</sup>	66,904	11.46	39,977	6.85	288,558	49.44	188,221	32.25
<b>AUSTRALIA.—AREA, 1,903,732,240 ACRES.</b>								
1929 <sup>d</sup>	120,005,827	6.30	63,342,125	3.33	953,452,523	50.08	766,910,625	40.29
1930 <sup>d</sup>	121,615,105	6.39	64,112,227	3.37	948,917,301	49.84	769,066,467	40.40
1931 <sup>d</sup>	122,733,165	6.45	64,814,622	3.40	961,703,608	50.52	754,459,705	39.63

(a) To 30th June.

(b) Excludes lands alienated but subsequently resumed or reverted to the Crown.

(c) Excludes Jervis Bay area, 17,920 acres.

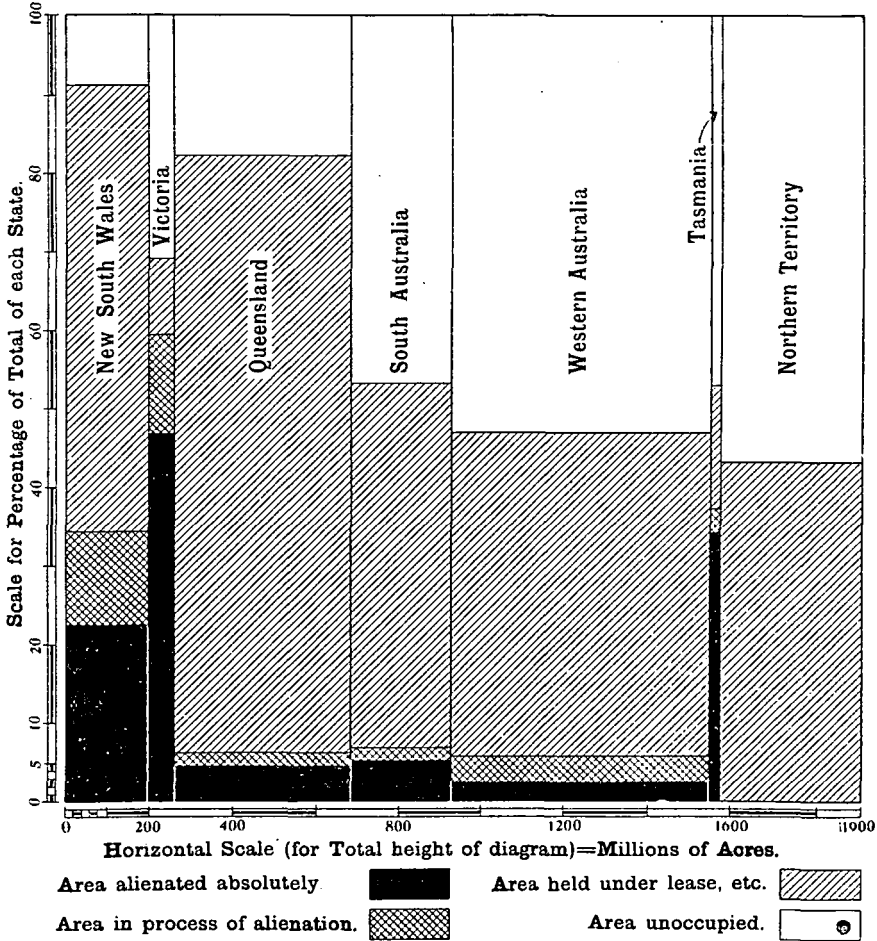
(d) Excludes Lord Howe Island, 3,220 acres, and Jervis Bay area, 17,920 acres.

(e) Excludes Lord Howe Island, 3,220 acres.



2. Diagram showing Condition of Public Estate.—The following diagram shows the condition of the public estate at the end of the year 1931. The square itself represents the total area of Australia, while the relative areas of individual States are shown by the vertical rectangles. The areas alienated absolutely, in process of alienation under systems of deferred payments, and the areas held under leases or licences, are designated by the differently-shaded areas as described in the reference given below the diagram, while the areas unoccupied are left unshaded.

Land Tenure



## CHAPTER VI.

### TRANSPORT AND COMMUNICATION.

#### A. SHIPPING.

##### § 1. System of Record.

So far as oversea vessels are concerned, the system of record treats Australia as a unit, and counts, therefore, only one entry and one clearance for each voyage, without regard to the number of States visited.

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers, and cargo. At the end of each month the information so obtained is entered on forms which are forwarded to the Commonwealth Bureau of Census and Statistics. These forms, which collectively provide a complete record of the movements of every vessel in Australian waters, furnish the material for the compilation of the Shipping and Migration Returns. The arrangement referred to has been in operation since the 1st July, 1924.

From the 1st July, 1914, the statistical year for the record of Trade and Shipping of Australia was altered from the calendar year to the fiscal year ending 30th June.

In all instances the tonnage quoted is net tonnage.

##### § 2. Oversea Shipping.

1. **Total Movement.**—The following table gives the number and tonnage of oversea steam and sailing vessels entering Australian ports during the years 1922-23 to 1931-32 :—

##### TOTAL OVERSEA SHIPPING, ENTERED.—AUSTRALIA.

Year.	Steam.		Sailing.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1922-23 .. ..	1,341	4,599,021	148	138,833	1,489	4,737,854
1923-24 .. ..	1,437	4,808,129	109	103,007	1,546	4,911,136
1924-25 .. ..	1,675	5,535,871	51	60,529	1,726	5,596,400
1925-26 .. ..	1,537	5,245,222	46	58,583	1,583	5,303,805
1926-27 .. ..	1,598	5,512,840	26	46,030	1,624	5,558,870
1927-28 .. ..	1,544	5,373,485	33	45,560	1,577	5,419,045
1928-29 .. ..	1,564	5,521,725	18	29,858	1,582	5,551,583
1929-30 .. ..	1,499	5,413,192	23	31,254	1,522	5,444,446
1930-31 .. ..	1,517	5,562,230	17	19,287	1,534	5,581,517
1931-32 .. ..	1,497	5,653,731	22	33,167	1,519	5,686,898

The average tonnage of vessels entered has risen from 3,182 tons per vessel in 1922-23 to 3,744 tons in 1931-32.

Particulars regarding the total oversea movement of shipping for each year from 1822 to 1920-21 will be found in Official Year Book No. 15, p. 507.

2. **Shipping Communication with various Countries.**—Records of the number and tonnage of vessels arriving from and departing to particular countries are misleading for the reason that the tonnage of a vessel can be recorded against one country only, notwithstanding that the same vessel on the same voyage may carry cargo or passengers

to or from Australia for several countries. For instance, a mail steamer on a voyage from the United Kingdom to Australia, through the Suez Canal, may call at Marseilles, Genoa, Port Said, Aden and Colombo yet can be credited only to the United Kingdom, the country where the voyage commenced, to the exclusion of all of the others from the records. Also a number of vessels touch at New Zealand ports on their voyages to and from the United States of America and Canada, but their tonnages are not included in the records of Australian shipping trade with New Zealand. Similarly, the record of shipping engaged in trade between Australia and the United Kingdom via South African ports does not show tonnage to and from South Africa, the whole of it being included in the figures for United Kingdom. In view of this defect, statistics relating to the direction of the shipping to and from Australia are restricted to the following tables in which countries situated on the main trade routes are grouped together. This grouping into larger geographical divisions to some extent avoids the limitations referred to, except, as already pointed out, in the case of Africa and New Zealand.

## OVERSEA SHIPPING, AUSTRALIA—DIRECTION.

Countries.	Cargo and Ballast.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>TONNAGE ENTERED.</b>						
United Kingdom and European Countries	Cargo	1,939,468	1,759,576	2,043,137	1,632,252	1,524,673
	Ballast	3,950	35,563	19,840	248,998	503,997
New Zealand .. ..	Cargo	453,965	476,987	457,812	400,623	426,704
	Ballast	170,086	147,819	166,948	157,029	97,781
Asiatic Countries and Islands in the Pacific .. ..	Cargo	1,187,969	1,372,717	1,329,505	1,195,313	1,182,212
	Ballast	190,883	333,350	121,907	765,805	895,825
Africa .. ..	Cargo	34,325	37,453	42,304	34,543	7,836
	Ballast	55,595	75,807	52,103	261,442	226,226
North and Central America	Cargo	1,366,499	1,254,911	1,194,358	861,415	802,672
	Ballast	5,566	11,480	8,305	12,987	..
South America .. ..	Cargo	10,739	5,920	8,227	2,821	2,821
	Ballast	..	..	..	7,289	16,151
	Cargo	4,992,965	4,927,564	5,075,343	4,127,967	3,946,918
	Ballast	426,080	624,019	369,103	1,453,550	1,739,980
Total .. ..	..	5,419,045	5,551,583	5,444,446	5,581,517	5,686,898

<b>TONNAGE CLEARED.</b>						
United Kingdom and European Countries .. ..	Cargo	2,416,656	2,313,817	2,247,735	2,457,125	2,673,463
	Ballast	..	..	5,537	..	5,659
New Zealand .. ..	Cargo	601,802	514,588	544,643	469,806	385,088
	Ballast	23,518	29,189	43,584	19,121	66,739
Asiatic Countries and Islands in the Pacific .. ..	Cargo	1,104,361	1,390,401	1,061,434	1,651,536	1,647,769
	Ballast	453,271	444,169	594,752	311,894	249,981
Africa .. ..	Cargo	159,238	122,965	45,114	(a)169,060	42,096
	Ballast	2,722	672	4,205	..	56
North and Central America	Cargo	474,279	536,134	633,692	450,702	488,134
	Ballast	238,166	164,290	306,629	120,786	130,270
South America .. ..	Cargo	28,643	29,356	12,356	18,643	19,631
	Ballast	3,597	..	..	..	..
	Cargo	4,784,979	4,907,261	4,544,974	5,216,872	5,256,181
	Ballast	721,274	638,320	954,707	451,801	452,705
Total .. ..	..	5,506,253	5,545,581	5,499,681	5,668,673	5,708,886

(a) Includes 23 vessels of 71,801 tons cleared to Las Palmas and 13 vessels of 40,966 tons cleared to Port Said for orders, all of which were subsequently diverted to ports in the United Kingdom and Europe.

3. **Nationality of Oversea Shipping.**—The greater part of the shipping visiting Australia is of British nationality, though in 1931-32 the proportion of British tonnage, 65.62 per cent., was the lowest yet recorded. This does not mean an actual diminution of British tonnage in the Australian trade, but the proportion which British ships represent has been reduced mainly by an increase in the tonnage of Japanese and Norwegian vessels.

Particulars of the nationality of oversea shipping for the last five years are given in the following table :—

**OVERSEA SHIPPING, AUSTRALIA—NATIONALITY OF VESSELS ENTERED.**

Nationality.	Tonnage.				
	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>BRITISH—</b>					
Australian .. ..	395,680	206,188	211,890	227,550	230,996
United Kingdom .. ..	3,011,435	3,286,445	3,244,561	3,086,586	3,138,330
Canadian .. ..	72,079	77,907	57,282	38,683	42,032
New Zealand .. ..	403,176	415,517	399,209	320,822	260,628
Other British .. ..	94,863	120,580	84,928	62,398	59,905
Cargo .. ..	3,637,889	3,703,435	3,726,326	2,924,814	2,680,856
Ballast .. ..	339,344	403,202	271,544	811,225	1,051,035
Total British .. ..	3,977,233	4,106,637	3,997,870	3,736,039	3,731,891
Per cent. on total .. ..	73.39	73.97	73.43	66.94	65.62
<b>FOREIGN—</b>					
Danish .. ..	61,311	34,016	72,431	44,693	46,061
Dutch .. ..	130,500	147,843	154,036	147,425	156,617
French .. ..	97,596	118,842	106,939	102,641	90,552
German .. ..	157,381	137,766	105,435	114,922	116,004
Italian .. ..	76,921	54,716	63,840	68,220	68,220
Japanese .. ..	168,323	286,607	207,910	671,742	688,712
Norwegian .. ..	284,036	255,270	307,943	339,695	395,269
Swedish .. ..	106,159	92,397	86,540	114,244	111,196
United States .. ..	341,263	289,228	267,827	186,800	205,485
Other Foreign .. ..	18,322	28,261	73,675	55,096	76,891
Cargo .. ..	1,355,076	1,224,129	1,349,017	1,203,153	1,266,062
Ballast .. ..	86,736	220,817	97,559	642,325	688,945
Total Foreign .. ..	1,441,812	1,444,946	1,446,576	1,845,478	1,955,007
Per cent. on total .. ..	26.61	26.03	26.57	33.06	34.38
Cargo .. ..	4,992,965	4,927,564	5,075,343	4,127,967	3,946,918
Per cent. on total .. ..	92.14	89.76	93.22	73.96	69.40
Ballast .. ..	426,080	624,019	369,103	1,453,550	1,739,980
Per cent. on total .. ..	7.86	11.24	6.78	26.04	30.60
<b>Grand Total</b> .. ..	<b>5,419,045</b>	<b>5,551,583</b>	<b>5,444,446</b>	<b>5,581,517</b>	<b>5,686,898</b>

The Australian tonnage which entered Australia from overseas during the year 1931-32 represented 4.06 per cent. of the total tonnage entered. This figure was less than the average for the quinquennium, which was 4.63 per cent., the decrease being due mainly to the disposal of Australian-owned vessels to foreign owners or to other Australian owners and transferred to the interstate trade, and the sale effected in April, 1928, of the five Bay liners and the freighters *Fordsdale* and *Ferndale* to the White Star Line.

### § 3. Shipping of Ports.

The total shipping tonnage—oversea, interstate, and coastwise—which entered the more important ports of Australia during the year 1931-32, together with similar information in regard to some of the ports of New Zealand and of Great Britain for the year 1931, will be found in the next table :—

#### SHIPPING OF PORTS, AUSTRALIA, NEW ZEALAND, AND THE UNITED KINGDOM.

Port.	Tonnage Entered.	Port.	Tonnage Entered.
<b>AUSTRALIA—</b>		<b>ENGLAND AND WALES—</b>	
Sydney (N.S.W.) ..	8,227,956	London ..	27,989,066
Melbourne (Vic.) ..	6,083,072	Liverpool (including	
Adelaide (S.A.) ..	3,937,915	Birkenhead) ..	15,524,453
Brisbane (Qld.) ..	3,453,826	Southampton ..	12,104,413
Fremantle (W.A.) ..	3,310,750	Tyne Ports ..	9,336,720
Newcastle (N.S.W.) ..	3,308,320	Cardiff ..	7,466,642
Townsville (Qld.) ..	1,089,976	Plymouth ..	7,264,375
Hobart (Tas.) ..	817,171	Hull ..	5,623,271
Geelong (Vic.) ..	791,693	Manchester (including	
Cairns (Qld.) ..	607,853	Runcorn) ..	3,589,959
Kembla (N.S.W.) ..	535,276	Bristol ..	3,519,309
Pirie (S.A.) ..	535,143	Swansea ..	3,323,539
Albany (W.A.) ..	382,424	Sunderland ..	3,140,152
Lincoln (S.A.) ..	370,609	Harwich ..	2,843,046
Launceston (Tas.) ..	358,382	Newport ..	2,568,655
Burnie (Tas.) ..	352,223	Middlesbrough ..	2,478,435
Wallaroo (S.A.) ..	342,123	Dover ..	2,409,614
Mackay (Qld.) ..	319,847	Grimsby (including	
Thursday Island (Qld.) ..	274,005	Immingham) ..	2,244,315
Geraldton (W.A.) ..	268,363	Blyth ..	2,185,373
Devonport (Tas.) ..	265,001	Beaumaris (including	
Rockhampton (Qld.) ..	256,288	Holyhead) ..	2,029,180
<b>NEW ZEALAND—</b>		<b>SCOTLAND—</b>	
Wellington ..	3,349,212	Glasgow ..	5,580,469
Auckland ..	2,383,549	Greenock ..	3,185,389
Lyttleton ..	1,921,564	Leith ..	2,009,596
Dunedin ..	1,000,531	<b>NORTHERN IRELAND—</b>	
		Belfast ..	6,409,890

### § 4. Vessels Built and Registered.

1. **Vessels Built.**—The following table shows the number and tonnage of vessels built in Australia during each of the calendar years 1928 to 1932, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, does not, however, make it compulsory to register vessels under 15 tons burthen if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners. As the Shipping Registers are the source of information, it follows that the figures given below will be subject to additions in the future, inasmuch as vessels already built may be added to the register at some future date.

## VESSELS BUILT IN AUSTRALIA.

NUMBER.

Year.	Steamers built of—					Oil Motor Vessels.	Sailing.	Pontoons, Dredges, etc.	Total.
	Wood.	Iron.	Steel.	Com- posite.	Total.				
1928 ..	2	..	..	..	2	13	5	..	20
1929 ..	..	..	..	..	..	13	2	..	15
1930 ..	..	..	..	..	..	11	1	..	12
1931 ..	..	..	..	..	..	4	..	..	4
1932 ..	..	..	..	..	..	4	2	..	6

TONNAGE.

Year.	Steamers.		Oil Motor Vessels.		Sailing.		Pontoons, Dredges, etc.		Total.	
	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.
1928 ..	46	36	191	156	61	59	..	..	298	251
1929 ..	..	..	360	264	17	14	..	..	377	278
1930 ..	..	..	310	219	9	9	..	..	319	228
1931 ..	..	..	60	43	..	..	..	..	60	43
1932 ..	..	..	108	62	15	15	..	..	123	77

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing, and other vessels on the registers of the States and of the Northern Territory on the 31st December, 1932 :—

## VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1932.

States and Territory.	Steam.				Sailing.				Barges, Hulks, Dredges, etc., not Self-propelled.		Total.	
	Dredges and Tugs.		Other.		Fitted with Auxiliary Power.		Other.		No.	Net Tons.	No.	Net Tons.
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.				
New South Wales ..	48	1,239	319	68,008	257	4,550	221	7,626	50	13,197	895	94,620
Victoria ..	42	4,176	131	139,218	53	2,587	45	795	63	28,597	334	175,373
Queensland ..	16	2,429	36	5,071	56	898	93	1,359	27	4,002	228	13,759
South Australia ..	11	337	63	12,178	56	2,782	53	3,107	21	4,714	204	23,118
Western Australia ..	9	373	27	5,803	29	567	291	4,576	21	4,370	377	15,489
Tasmania ..	5	534	49	5,293	66	1,634	64	2,419	1	382	185	10,262
Northern Territory	..	..	..	..	3	44	17	163	..	..	20	207
Total ..	131	8,888	625	235,571	520	13,062	784	20,045	183	55,262	2,243	332,828

## § 5. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements, viz. :—(a) Vessels engaged solely in interstate trade; and (b) Vessels trading between Australia and overseas countries and in the course of their voyage proceeding from one State to another. (It should be mentioned that these vessels, except under special circumstances, do not now engage in interstate carrying.) No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the overseas vessels (b) some explanation is necessary. Each State desires that its

shipping statistics (which are prepared in the Commonwealth Bureau of Census and Statistics) shall show in full its shipping communication with overseas countries, but at the same time it is necessary to avoid any duplication in the statistics for Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an overseas country—say United Kingdom—*via* another State, is recorded in the second State as from United Kingdom, *via* States, thus distinguishing the movement from a *direct* oversea entry. Continuing the voyage, the vessel is in the third State again recorded for the statistics of the State concerned as from United Kingdom *via* other States. As, however, this inward voyage will terminate at an Australian port it follows that the *clearance* from the first State to the second State is a *clearance* interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as “Oversea *via* other States” or “Interstate” according to the direction of the movement. The significance of the record of these movements will be more clearly seen from the following tabular presentation of the inward and outward voyages to and from Australia of a mail steamer which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—*via* the States of South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, and retrace its inward track.

ITINERARY OF AN OVERSEAS VESSEL ON AUSTRALIAN COAST.

Particulars.	Recorded as—	
	For the State and for Australia.	For the States.
<b>Inward Voyage—</b>		
Enters Fremantle from United Kingdom	Oversea direct	
Clears Fremantle for Adelaide . . . . .	.. ..	Interstate direct
Enters Adelaide from United Kingdom <i>via</i> Fremantle . . . . .	.. ..	.. .. Oversea <i>via</i> States
Clears Adelaide for Melbourne . . . . .	.. ..	Interstate direct
Enters Melbourne from United Kingdom <i>via</i> Adelaide . . . . .	.. ..	.. .. Oversea <i>via</i> States
Clears Melbourne for Sydney . . . . .	.. ..	Interstate direct
Enters Sydney from United Kingdom <i>via</i> Melbourne . . . . .	.. ..	.. .. Oversea <i>via</i> States
<b>Outward Voyage—</b>		
Clears Sydney for United Kingdom <i>via</i> Melbourne . . . . .	.. ..	.. .. Oversea <i>via</i> States
Enters Melbourne from Sydney . . . . .	.. ..	Interstate direct
Clears Melbourne for United Kingdom <i>via</i> Adelaide . . . . .	.. ..	.. .. Oversea <i>via</i> States
Enters Adelaide from Melbourne . . . . .	.. ..	Interstate direct
Clears Adelaide for United Kingdom <i>via</i> Fremantle . . . . .	.. ..	.. .. Oversea <i>via</i> States
Enters Fremantle from Adelaide . . . . .	.. ..	Interstate direct
Clears Fremantle for United Kingdom . . . . .	Oversea direct	

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows:—(a) The aggregate of all ships recorded for each State as “Oversea *direct*” gives the oversea shipping for Australia as a whole. (b) The aggregate for all ships recorded in any State as “Oversea *direct*” plus those recorded as “Oversea *via* States” gives the total *oversea shipping* for that State. (c) From the example given in the table it may be noticed that for every entry “Oversea *via* States” there is a corresponding clearance “Interstate,” so that according to the purpose for which the figures are required, the movements of “oversea ships *via* States” can be added to the recorded interstate shipping, and thus furnish figures showing the total interstate *movement* of shipping, or a similar deduction may be made from the recorded interstate shipping to give the total movement of shipping engaged solely in interstate trade.

2. **Vessels and Tonnage Entered.**—(*Interstate direct.*) The following table gives the number and tonnage of vessels recorded as having entered each State from any other State during each of the years 1927-28 to 1931-32. The shipping of the Murray River, between the States of New South Wales, Victoria, and South Australia is not included :—

**INTERSTATE SHIPPING.—NUMBER AND TONNAGE OF VESSELS ENTERED.**

States and Territory.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>NUMBER.</b>					
New South Wales .. ..	1,856	1,723	1,588	1,564	1,483
Victoria .. ..	1,815	1,704	1,739	1,534	1,494
Queensland .. ..	463	455	490	469	483
South Australia .. ..	852	730	753	606	598
Western Australia .. ..	382	339	387	305	311
Tasmania .. ..	1,052	950	1,022	941	933
Northern Territory .. ..	29	33	26	21	19
<b>Total .. ..</b>	<b>6,449</b>	<b>5,934</b>	<b>6,005</b>	<b>5,440</b>	<b>5,321</b>
<b>TONNAGE.</b>					
New South Wales .. ..	4,204,347	4,103,542	4,079,399	3,996,976	3,947,128
Victoria .. ..	3,511,614	3,416,924	3,552,904	3,274,609	3,154,197
Queensland .. ..	1,074,291	1,106,905	1,164,183	1,061,560	1,123,578
South Australia .. ..	2,462,588	2,238,706	2,504,065	2,143,692	2,176,155
Western Australia .. ..	1,879,446	1,663,818	1,915,695	1,653,953	1,643,755
Tasmania .. ..	1,242,260	853,982	1,207,640	1,134,113	1,094,767
Northern Territory .. ..	61,746	59,048	64,075	62,570	51,570
<b>Total .. ..</b>	<b>14,436,292</b>	<b>13,442,925</b>	<b>14,487,961</b>	<b>13,327,473</b>	<b>13,191,150</b>

3. **Oversea Vessels Moving Interstate.**—(*Oversea via States.*) To ascertain the aggregate movement of shipping between the States during the year 1931-32, including the total interstate movements of oversea vessels, the figures in the following table, which give the number and tonnage of vessels entered from or cleared for oversea countries via other Australian States, must be added to those in the table preceding :—

**SHIPPING ENTERED AND CLEARED FROM AND TO OVERSEA COUNTRIES VIA OTHER AUSTRALIAN STATES, 1931-32.**

States and Territory.	Entered.		Cleared.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales .. ..	443	2,311,219	422	2,216,503	865	4,527,722
Victoria .. ..	370	2,012,656	372	2,030,697	742	4,043,353
Queensland .. ..	220	1,384,941	224	1,425,999	444	2,810,940
South Australia .. ..	229	1,372,743	242	1,425,943	471	2,798,686
Western Australia .. ..	16	66,023	20	79,142	36	145,165
Tasmania .. ..	29	130,786	83	500,691	112	631,477
Northern Territory .. ..	3	6,346	..	..	3	6,346
<b>Total .. ..</b>	<b>1,310</b>	<b>7,284,714</b>	<b>1,363</b>	<b>7,678,975</b>	<b>2,673</b>	<b>14,963,689</b>



Oversea vessels moving interstate are with few exceptions not engaged in the active interstate trade of Australia, but are merely proceeding to the several States in continuation of their oversea voyage.

4. **Vessels engaged Solely in Interstate Trade.**—Eliminating all interstate movements of oversea vessels, the number and tonnage of vessels engaged solely in the interstate trade for Australia as a whole during the years 1927-28 to 1931-32 were as follow :—

**VESSELS ENGAGED SOLELY IN INTERSTATE TRADE. NUMBER AND TONNAGE ENTERED AND CLEARED.—AUSTRALIA.**

Year.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
1927-28 .. .. .	4,824	6,316,106	4,865	6,447,495
1928-29 .. .. .	4,373	5,512,897	4,383	5,611,354
1929-30 .. .. .	4,396	6,218,634	4,373	6,091,994
1930-31 .. .. .	4,054	5,761,040	4,074	5,838,626
1931-32 .. .. .	3,958	5,512,175	3,999	5,557,763

5. **Total Interstate Movement of Shipping.**—(i) *Australia.* The appended table shows the total interstate movement of shipping including oversea vessels moving interstate for each of the years 1927-28 to 1931-32 :—

**TOTAL INTERSTATE MOVEMENT OF SHIPPING.—AUSTRALIA.**

Year.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
1927-28 .. .. .	8,324	23,395,355	8,365	23,526,744
1928-29 .. .. .	7,823	22,648,956	7,833	22,747,413
1929-30 .. .. .	7,851	23,616,739	7,828	23,490,099
1930-31 .. .. .	6,916	20,987,466	6,936	21,065,052
1931-32 .. .. .	6,631	20,475,864	6,672	20,521,452

(ii) *States.* The following table shows the number and tonnage of vessels which entered and cleared each State from and for other States during 1931-32, including the coastal movements of oversea vessels :—

**INTERSTATE SHIPPING OF EACH STATE, 1931-32.**

States and Territory.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales .. .. .	1,926	6,258,347	1,918	6,090,877
Victoria .. .. .	1,864	5,166,853	1,913	5,413,749
Queensland .. .. .	703	2,508,519	709	2,534,609
South Australia .. .. .	827	3,548,898	842	3,596,375
Western Australia .. .. .	327	1,709,778	295	1,592,873
Tasmania .. .. .	962	1,225,553	976	1,241,701
Northern Territory .. .. .	22	57,916	19	51,268
<b>Total, Australia .. .. .</b>	<b>6,631</b>	<b>20,475,864</b>	<b>6,672</b>	<b>20,521,452</b>

6. **Interstate and Coastal Services.**—The subjoined table gives particulars, so far as they are available, of all steamships engaged in regular interstate or coastal services at the end of each of the years 1928 to 1932 :—

**INTERSTATE AND COASTAL STEAMSHIP SERVICES.—AUSTRALIA.**

Particulars.	1928.	1929.	1930.	1931.	1932.
Number of companies making returns .. ..	38	29	22	23	23
Number of steamships .. ..	201	181	173	162	154
Tonnage { Gross .. ..	371,142	360,459	349,163	319,756	306,878
{ Net .. ..	208,083	202,749	196,342	178,549	171,089
Horse-power (Nominal) .. ..	37,980	37,911	36,230	34,357	33,340
Number of passengers for which licensed	7,686	7,983	7,686	7,278	7,222
{ 1st class .. ..	3,240	1,755	1,784	1,775	1,755
{ 2nd class and steerage .. ..	638	588	563	524	498
Complement of Crew { Masters and officers .. ..	630	598	576	538	514
{ Engineers .. ..	4,922	4,710	4,630	4,232	4,072
{ Crew .. ..					

**§ 6. Tonnage of Cargo.**

1. **Oversea and Interstate Cargo.**—The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped in Australian ports, and the tonnage of interstate cargo shipped in all ports for the years 1927-28 to 1931-32. Cargo which was stated in cubic feet has been converted to tons measurement on the basis of 40 cubic feet to the ton.

**AUSTRALIAN SHIPPING.—CARGO MOVEMENT.**

Year.	Oversea Cargo.				Interstate Cargo.	
	Discharged.		Shipped.		Shipped.	
	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.
1927-28 .. ..	3,346,604	2,542,523	3,739,525	946,781	5,090,116	1,134,972
1928-29 .. ..	3,596,936	2,470,493	4,529,232	759,813	4,381,692	1,168,601
1929-30 .. ..	4,348,396	2,298,101	3,954,893	643,373	3,460,428	1,111,355
1930-31 .. ..	2,375,412	1,037,889	5,802,593	639,032	3,295,051	805,314
1931-32 .. ..	2,072,334	894,380	5,951,914	726,040	3,002,327	1,007,351

2. **Nationality.**—The following table shows the total oversea cargo discharged and shipped according to the nationality of the vessels carrying during the years 1927-28 to 1931-32.

**OVERSEA CARGO DISCHARGED AND SHIPPED.—TONS.(a)**

Vessels Registered at Ports in—	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
British—					
Australia .. ..	679,122	255,296	237,792	210,168	223,841
United Kingdom .. ..	6,036,024	6,988,043	6,861,323	5,528,848	5,429,998
Canada .. ..	151,582	190,273	135,154	86,775	64,169
New Zealand .. ..	512,929	456,560	441,593	357,258	260,988
Other British .. ..	142,629	222,787	163,949	98,492	134,739
Total British .. ..	7,522,286	8,112,959	7,839,811	6,290,541	6,113,735
Per cent. on Total .. ..	71.13	71.44	69.72	63.83	63.39

OVERSEA CARGO DISCHARGED AND SHIPPED.—TONS (a)—*continued.*

Vessels Registered at Ports in—	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Foreign—					
Denmark .. .. .	176,568	117,499	227,779	133,777	137,378
France .. .. .	151,162	153,670	119,533	92,460	76,666
Germany .. .. .	377,599	385,692	269,783	241,868	248,983
Italy .. .. .	125,403	92,476	108,605	90,412	73,962
Japan .. .. .	303,353	532,174	436,747	1,146,557	1,161,303
Netherlands .. .. .	256,493	280,675	290,949	234,897	254,768
Norway .. .. .	722,677	687,509	876,701	868,346	876,991
Sweden .. .. .	354,084	330,290	355,621	360,373	313,986
United States of America .. .. .	534,477	585,587	512,923	282,383	232,182
Other Foreign .. .. .	51,331	77,943	206,311	113,312	154,714
Total Foreign .. .. .	3,053,147	3,243,515	3,404,952	3,564,385	3,530,933
Per cent. on Total .. .. .	28.87	28.56	30.28	36.17	36.61
Grand Total .. .. .	10,575,433	11,356,474	11,244,763	9,854,926	9,644,668

(a) Tons weight and tons measurement combined.

§ 7. Miscellaneous.

1. **Lighthouses.**—Transport and Communication Bulletin No. 14, published by this Bureau, contains a list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power, and visibility of each light so far as particulars were available.

2. **Distances by Sea.**—A statement giving the distances by sea between the ports of the capital cities of Australia and the most important ports in other countries which trade with Australia was also included in Transport and Communication Bulletin No. 14.

3. **Shipping Freight Rates.**—The Quarterly Summary of Australian Statistics gives a list of the ruling freight rates for general merchandise both in respect of oversea and interstate shipments. The latest figures available, which give the rates current at 30th June, 1933, show that the rate for general merchandise from Australia to United Kingdom and Continent was 63s. per ton weight or measurement, while the rates for wheat and wool (greasy) were respectively 20s. per ton weight and 1 <sup>1</sup>/<sub>16</sub>d. per lb. The charter rate for wheat was 22s. 6d. per ton.

4. **Depth of Water at Main Ports.**—A table compiled from information supplied by the Director of Navigation showing the depth of water at the main ports of Australia at 1st January, 1933, was included in the Transport and Communication Bulletin No. 23, published by this Bureau.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate assisted by skilled assessors, and when necessary are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers found to be at fault. Particulars of shipping casualties reported on or near the coast during the year 1932 are shown in the Transport and Communication Bulletin No. 23. This information also was furnished by the Director of Navigation.

6. **Commonwealth Navigation and Shipping Legislation.**—(i) *General.* An account in some detail, of the Commonwealth Navigation and Shipping Legislation was published in Official Year Book No. 17 (pp. 1053–5).

(ii) *Amending Acts.* Under the provisions of the Navigation Act 1926 (March, 1926) permission may be granted by the Governor-General in Council in certain specified circumstances to unlicensed British ships to engage in passenger tourist traffic between any specified Commonwealth ports. Certain vessels were granted permission to engage in the carriage of passengers between the port of Hobart and the ports of Brisbane, Sydney, and Melbourne during the period 6th March, 1926, to 31st May, 1926, and between the 1st January, 1927, and 31st May, 1927. This permission may be renewed from time to time as occasion demands. The Navigation Act 1925 (July, 1925), conferred authority for the suspension, for any specified time, if in the opinion of the Governor-General in Council such is expedient in the public interest, of the operation of the provisions of that part of the principal Act relating to the engagement of ships in the coasting trade by exempting under certain circumstances any ship or class of ships from compliance with any specified provisions of the Act.

7. **Ports and Harbours.**—A report in two volumes on *Transport in Australia*, with special reference to Ports and Harbours facilities, was submitted to the Commonwealth Government by Sir George Buchanan, and published as two Parliamentary Papers (No. 86 printed 14th March, 1927, and No. 108 printed 9th May, 1927).

## B. RAILWAYS.

### § 1. General.

1. **Introduction.**—In the following pages statistics relating to State-owned lines are, in the main, dealt with separately from those under the control of the Commonwealth Government. The railways owned by the different States are referred to throughout as “State” and those owned by the Commonwealth as “Federal” railways.

2. **Improvement of Railway Statistics.**—Earlier issues of the Year Book contain a condensation of the report issued in 1909 by the Commonwealth Statistician to the Minister for Home Affairs on the subject of *The Desirability of Improved Statistics of Government Railways in Australia* (see Year Book No. 7, page 598).

Considerable improvement, both as regards the volume of information and the mode of presentation thereof in the statistical tables appearing in the reports of the several Railway Commissioners, has been made during recent years.

3. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 will be found in Year Book No. 6, p. 681. Further information regarding railway communication in Australia and proposals for unification of gauge in the various systems are given in Year Book No. 22, pp. 259 to 261.

4. **Grafton-South Brisbane (Uniform Gauge) Line.**—The line from Grafton (New South Wales) to Brisbane (Queensland) which was opened for traffic on 27th September, 1930, was constructed to overcome the break of gauge between Sydney and Brisbane, and is the first step towards uniform gauge railway communication between the capitals of the mainland States. It was constructed under agreement between the Commonwealth and the States of New South Wales and Queensland, and is of 4ft. 8½in. gauge. The work consisted of regrading and relaying the existing New South Wales line between

Grafton and Kyogle and the construction of a new line 94.82 miles in length from Kyogle (New South Wales) to South Brisbane (Queensland). Under the agreement, the Commonwealth in the first instance provided the cost of the work, of which one-fifth was deemed to have been on behalf of the Commonwealth, and four-fifths on behalf of the five mainland States of the Commonwealth collectively on a population basis. The agreement also provides that if in any financial year the earnings from the line exceed the working expenses, the excess shall be applied in paying to the Commonwealth the interest on the money provided by it on behalf of the States and the Commonwealth. The order in which such excess shall be applied is laid down in the agreement, and provides that the interest on the quotas of Victoria, South Australia, and Western Australia shall be paid first, then the interest on the quotas of Queensland and New South Wales, and lastly the interest on the quota of the Commonwealth. Any balance remaining after payment of interest will be returned to Queensland and New South Wales. The States of Victoria, South Australia and Western Australia did not enter into the agreement, and the quotas of these States were assumed by the Commonwealth. To 30th June, 1932, the total expenditure by the Commonwealth was £4,371,000, the interest charge for the year 1931-32 being £207,556. During the same period, the working of the line, which is the responsibility of the New South Wales and Queensland Railways Commissioners, resulted in losses being shown on both sections as follow:—New South Wales £47,454, and Queensland £2,364. In addition, the following amounts were paid as interest:—New South Wales £72,301, and Queensland £27,075, the remainder, £108,180, being borne by the Commonwealth. Figures relating to the operation, etc., of the line are incorporated as far as possible with New South Wales and Queensland in the tables in Section 3, State Railways.

5. Mileage Open for Traffic, all Lines.—(i) *General.* In all the States the principle that the control, construction, and maintenance of the railways should be in the hands of the Government has long been adhered to, excepting in cases presenting unusual circumstances. In various parts of Australia, lines have been constructed and managed by private companies, but at the present time nearly the whole of the railway traffic is in the hands of the State or Commonwealth Governments. A large proportion of the private lines has been laid down for the purpose of opening up forest lands, mining districts, or sugar areas, and these lines are not generally used for the conveyance of passengers or the public conveyance of goods.

The subjoined table shows the route mileage of Federal, State, and private lines open for general traffic (exclusive of sidings and cross-overs) in each State for each of the years 1927-28 to 1931-32. The railway mileage given for each State includes both Federal, State, and private railways in that State:—

**RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE OPEN.**

State or Territory.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	6,008.99	6,082.25	6,089.93	6,159.70	6,208.30
Victoria ..	4,721.69	4,723.95	4,737.65	4,741.69	4,745.71
Queensland ..	6,619.14	6,720.91	6,726.03	6,794.54	6,821.04
South Australia ..	3,636.42	3,821.29	3,938.68	3,932.33	3,949.04
Western Australia ..	4,707.62	4,809.47	4,841.89	4,911.37	4,966.06
Tasmania ..	841.06	827.26	821.01	806.45	786.45
Federal Capital Territory ..	4.94	4.94	4.94	4.94	4.94
Northern Territory ..	198.68	264.84	316.50	316.50	316.50
<b>Australia ..</b>	<b>26,738.54</b>	<b>27,254.91</b>	<b>27,476.63</b>	<b>27,667.52</b>	<b>27,798.04</b>

In previous issues of the Year Book particulars were given for different periods from 1855 onwards. (See No. 15, p. 537.)

(ii) *Government and Private Lines Separately.* The next table shows for each State (a) the length of lines owned by the State Government, and by the Commonwealth Government in that State, all of which lines are open for general use by the public, and (b) the length of private lines available for general use by the public. The mileages specified in the case of Government and private lines are to the 30th June, 1932 :—

**RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE CLASSIFIED, 1931-32.**

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.
	State.	Federal.		
	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	6,125.60	..	82.70	6,208.30
Victoria .. ..	4,720.77	..	24.94	4,745.71
Queensland .. ..	6,558.09	..	262.95	6,821.04
South Australia .. ..	2,529.26	1,369.27	50.51	3,949.04
Western Australia .. ..	4,235.07	453.99	277.00	4,966.06
Tasmania .. ..	644.89	..	141.56	786.45
Federal Capital Territory .. ..	..	4.94	..	4.94
Northern Territory .. ..	..	316.50	..	316.50
<b>Australia .. ..</b>	<b>24,813.68</b>	<b>2,144.70</b>	<b>839.66</b>	<b>27,798.04</b>

6. *Comparative Railway Facilities.*—The mileage of line open to the public for general traffic (including both Government and private lines) is shown in the subjoined statement in relation to population and area respectively at the 30th June, 1932 :—

**RAILWAYS.—GOVERNMENT AND PRIVATE.—COMPARISON OF FACILITIES, 1932.**

Particulars.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Fed. Cap. Ter.	Nor. Ter.	Aust.
Mileage of Railway—									
Per 1,000 of population .. ..	2.45	2.63	7.03	6.74	11.76	3.55	0.57	70.18	4.24
Per 1,000 sq. miles of Territory .. ..	20.06	54.00	10.17	10.39	5.09	30.01	5.26	0.60	9.35

7. *Classification of Lines according to Gauge, 1931-32.*—The next table gives a classification, according to gauge, of the total mileage, exclusive of sidings and crossovers of (i) Federal railways, given in the State or Territory in which situated; (ii) State

railways; and (iii) Private railways open to the public for general traffic. Particulars of Government railways are up to the 30th June, 1932, and of private railways open for general traffic to the 31st December, 1932, as nearly as possible.

## RAILWAYS.—GOVERNMENT AND PRIVATE.—GAUGES, 1931-32.

State or Territory in which situated.	Route mileage having a gauge of—						Total.
	5 ft. 3 in.	4 ft. 8½ in.	3 ft. 6 in.	3 ft. 0 in.	2 ft. 6 in.	2 ft. 0 in.	

## FEDERAL RAILWAYS.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
South Australia .. ..	..	597.86	771.41	..	..	..	1,369.27
Western Australia .. ..	..	453.99	..	..	..	..	453.99
Federal Capital Territory .. ..	..	4.94	..	..	..	..	4.94
Northern Territory .. ..	..	..	316.50	..	..	..	316.50
Total .. ..	..	1,056.79	1,087.91	..	..	..	2,144.70

## STATE RAILWAYS.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	..	6,086.09	39.51	..	..	..	6,125.60
Victoria .. ..	4,599.00	..	..	..	121.77	..	4,720.77
Queensland .. ..	..	68.82	6,459.01	..	..	30.26	6,558.09
South Australia .. ..	1,451.24	..	1,078.02	..	..	..	2,529.26
Western Australia .. ..	..	..	4,235.07	..	..	..	4,235.07
Tasmania .. ..	..	..	633.56	..	..	11.33	644.89
Total .. ..	6,050.24	6,154.91	12,445.17	..	121.77	41.59	24,813.68

## PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	..	45.97	36.73	..	..	..	82.70
Victoria .. ..	13.94	..	..	11.00	..	..	24.94
Queensland .. ..	..	..	97.24	..	7.50	158.21	262.95
South Australia .. ..	..	..	50.51	..	..	..	50.51
Western Australia .. ..	..	..	277.00	..	..	..	277.00
Tasmania .. ..	..	..	125.07	..	..	16.49	141.56
Total .. ..	13.94	45.97	586.55	11.00	7.50	174.70	839.66

## ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	..	6,132.06	76.24	..	..	..	6,208.30
Victoria .. ..	4,612.94	..	..	11.00	121.77	..	4,745.71
Queensland .. ..	..	68.82	6,556.25	..	7.50	188.47	6,821.04
South Australia .. ..	1,451.24	597.86	1,899.94	..	..	..	3,949.04
Western Australia .. ..	..	453.99	4,512.07	..	..	..	4,966.06
Tasmania .. ..	..	..	758.63	..	..	27.82	786.45
Federal Capital Territory .. ..	..	4.94	..	..	..	..	4.94
Northern Territory .. ..	..	..	316.50	..	..	..	316.50
GRAND TOTAL .. ..	6,064.18	7,257.67	14,119.63	11.00	129.27	216.29	27,798.04

8. **Summary of Operations, 1931-32.**—In the following table a summary is given of the working of all railways open for general traffic in Australia during the year ended 30th June, 1932 :—

**RAILWAYS.—FEDERAL, STATE, AND PRIVATE.—SUMMARY 1931-32.**

Particulars.	Federal Railways.	State Railways.	Private Railways.	Total for Australia.
Mileage open (route) 30th June, 1932 .. .. Miles	2,144.70	24,813.68	839.66	27,798.04
Capital cost .. .. £	15,489,464	307,875,986	5,119,897	328,485,347
Cost per mile .. .. £	7,221	12,407	6,097	11,817
Gross revenue .. .. £	280,107	37,299,358	519,879	38,099,844
Gross revenue per train mile .. .. d.	130.04	141.39	134.13	141.19
Working Expenses .. .. £	357,802	27,784,182	353,590	28,495,574
Working Expenses per train mile .. .. d.	166.11	105.32	91.23	105.60
Net Revenue .. .. £	-77,695	9,515,676	166,289	9,604,270
Net Revenue per train mile .. .. d.	-36.07	36.07	42.90	35.59
Train miles run .. .. Miles	516,966	63,314,741	930,784	64,761,885
Passengers carried .. .. No.	74,076	302,639,095	943,818	303,657,589
Tons of goods, etc., carried .. .. Tons	97,700	25,973,772	1,299,889	27,371,361
Average number of employees .. .. (d)	1,099	92,751	897	94,747
Average wage .. .. £	229	223	238	223

(a) Exclusive of the capital cost of 149.98 miles of private lines for which information is not available.  
 (b) Incomplete. (c) Employees at 30th June, 1932. (d) Exclusive of Construction Branch.

9. **Track Mileage—Government Railways.**—The following table gives the track mileages of all Government railways and sidings, exclusive of Tasmania, for the years ended 30th June, 1929 to 1932, classified according to gauge, together with the percentages on the total :—

**RAILWAYS, FEDERAL AND STATE.—TRACK MILEAGE.(a)**

Gauge.	At 30th June—							
	1929.		1930.		1931.		1932.	
	Miles.	%	Miles.	%	Miles.	%	Miles.	%
5 ft. 3 in. ..	7,847.13	25.41	7,867.32	25.17	7,872.09	25.05	7,860.50	24.88
4 ft. 8½ in. ..	8,998.12	29.14	9,040.86	28.93	9,113.21	29.01	9,205.61	29.14
3 ft. 6 in. ..	13,865.95	44.91	14,176.91	45.37	14,268.41	45.41	14,358.58	45.45
2 ft. 6 in. ..	131.87	0.43	131.87	0.42	131.87	0.42	131.87	0.42
2 ft. 0 in. ..	33.00	0.11	33.00	0.11	33.00	0.11	33.00	0.11
Total ..	30,876.07	100.00	31,249.96	100.00	31,418.58	100.00	31,589.56	100.00

(a) Exclusive of Tasmania.

**§ 2. Federal Railways.**

1. **General.**—On the 1st January, 1911, the Commonwealth Government took over the Northern Territory from the South Australian Government, and at the same time the railways from Darwin to Pine Creek in the Northern Territory, and from Port Augusta to Oodnadatta in South Australia, came under its control. Subsequently the construction of a transcontinental line from Port Augusta in South Australia to Kalgoorlie in Western Australia was undertaken by the Commonwealth Government, while a line has been constructed in the Federal Capital Territory, connecting Canberra with the New South Wales railway system at Queanbeyan. In 1917 an Act was passed by which all the Federal railways were vested in a Commonwealth Railways Commissioner.

2. **North Australia Railway.**—(i) *Darwin to Birdum.* On the 1st January, 1911, the line from Darwin to Pine Creek came under the jurisdiction of the then Department of External Affairs, and was worked under the Administrator of the Northern Territory. As mentioned above, the management of this railway is now vested in the Commonwealth Railways Commissioner.



In the Northern Territory Acceptance Act the construction of a transcontinental line from South Australia is provided for. The extension of the line from Pine Creek to Katherine River was completed, and the first train ran through to Emungalan (Katherine River) on 13th May, 1917.

(ii) *Proposed Extension.* The recommendations of the Parliamentary Standing Committee on Public Works in connexion with the North-South line were indicated in a previous issue of this work. (See Year Book No. 18, p. 278.)

(iii) *Line Authorized for Construction.* The Northern Territory Railway Extension Act 1923 provided for the construction of a 3 ft. 6 in. gauge line from the then existing terminus at Emungalan to Daly Waters, a distance of approximately 160 miles. The estimated cost of this line is £1,545,000, including the cost of a bridge over the Katherine River which was completed in May, 1926, although the first train crossed on 21st January, 1926. The terminus of the line was moved to the new station at Katherine River on 14th December, 1926. Tenders were then called for the construction of the line from Katherine River to Daly Waters, but, as no satisfactory tender was received, it was decided to do the work by day labour. Under this system, construction proceeded rapidly until December, 1927, when, owing to a reduction in the amount of money to be made available for construction during the year 1927-28, a drastic curtailment of operations was made. The work then proceeded at a limited rate, and, on 1st July, 1928, a further section, to Mataranka (264 miles 67 chains from Darwin) was opened for public traffic. Owing to the need for the curtailment of loan expenditure, the Government then decided not to proceed with construction work beyond Birdum (316 miles 40 chains from Darwin), and on 4th September, 1929, this section was opened for traffic and further construction work ceased.

3. **Central Australia Railway.**—(i) *General.* This line was taken over by the South Australian Government until 31st December, 1913. From the 1st January, 1914, the line was worked under agreement by the South Australian Government for and on behalf of the Commonwealth, but from 1st January, 1926, the management devolved upon the Commonwealth Railways Commissioner.

(ii) *Extension Authorized.* The Railways (South Australia) Agreement Act 1926, assented to by the Commonwealth Parliament in February, 1926, ratified the agreement between the Commonwealth and South Australian Governments for the construction of a 3 ft. 6 in. gauge line between Port Augusta and Alice Springs. This involves the construction of an extension to Alice Springs of the then existing 3 ft. 6 in. gauge line from Port Augusta to Oodnadatta. The estimated cost, exclusive of rolling stock, of the proposed extension, which comprises 292 miles, was £1,700,000. The first section 21½ miles from Oodnadatta was completed on the 29th August, 1927. The contract for the construction of the balance of 270¾ miles to Alice Springs was signed on the 11th August, 1927. The contract provided for the completion of the railway to Alice Springs by the 30th June, 1929, but it was not until 2nd August, 1929, that the completed line was taken over for public traffic.

4. **Federal Capital Territory Railway.**—**Queanbeyan-Canberra.**—This line was built by the Railway Construction Branch of the Public Works Department, New South Wales, and, when completed, was taken over by the Chief Commissioner of Railways for that State, who worked the line for and on behalf of the Commonwealth Government until 1st July, 1928, on which date the management was taken over by the Commonwealth Railways Commissioner. The line was opened for departmental goods traffic on 25th May, 1914. It connects with the New South Wales railway system at Queanbeyan, is 4.94 miles in length, and has sidings of an aggregate length of 2.00 miles.

5. **Trans-Australian Railway (Kalgoorlie to Port Augusta).**—In the issue of the Year Book for 1918 (No. 11, pp. 662 to 666 and p. 1213), a short history of the construction of the Trans-Australian line is given, also a description of the country through which the line passes between Kalgoorlie and Port Augusta.

On the 22nd October, 1917, the first through train left Port Augusta with an official party on board for Kalgoorlie. It should be mentioned that owing to deviations from the original route, the length of this line was reduced from 1,063.39 miles to 1,051.85 miles, a saving of 11.54 miles.

6. **Lines Open, Surveyed, etc.**—The following table shows the lines open for traffic under the control of the Commonwealth Government at 30th June, 1932, together with the lines which have been or are being surveyed :—

**RAILWAYS, FEDERAL, 30th JUNE, 1932.**

Terminals.	Miles.
<b>OPEN FOR TRAFFIC.</b>	
Trans-Australian—Port Augusta (South Australia) to Kalgoorlie (Western Australia) .. .. .	1,051.85
Central Australia Railway—Port Augusta (South Australia) to Alice Springs (Central Australia) .. .. .	771.41
Queanbeyan to Canberra (Federal Capital Territory) .. .. .	4.94
North Australia Railway—Darwin to Birdum .. .. .	316.50
Total opened for traffic .. .. .	2,144.70
<b>SURVEYED OR BEING SURVEYED.</b>	
Birdum to Daly Waters (Northern Territory) .. .. .	43.50
Kingoonya to Boorthanna (South Australia) .. .. .	176.44
Canberra to Jervis Bay (Federal Capital Territory) .. .. .	140.22
Canberra (Federal Capital Territory) to Federal Capital Territory Border in the direction of Yass (New South Wales) .. .. .	11.67
Daly Waters (Northern Territory) to Alice Springs (South Australia) .. .. .	559.50
Port Augusta to Crystal Brook (South Australia) .. .. .	69.25
Port Augusta—Red Hill—Adelaide .. .. .	188.98
Total surveyed or being surveyed .. .. .	1,189.56

In addition, the following trial surveys were undertaken on behalf of the North Australia Commission, viz. :—

(1) From the proposed deep water port at Rocky Island (Gulf of Carpentaria) to Borroloola; (2) From Borroloola to near Anthony's Lagoon; (3) From Daly Waters to a point on the Queensland Border about 44 miles south of Camooweal; and (3) From a point on the Daly Waters—Queensland Border survey 45 miles south of Daly Waters, and near Newcastle Waters to the border of Western Australia.

7. **Mileage open, worked, and Train miles run.**—The next table shows the length of the Federal railways open for traffic, average miles worked, and the train miles run in the years 1928 to 1932 :—

**RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES.**

**MILES OPEN FOR TRAFFIC.**

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
	Miles.	Miles.	Miles.	Miles.	Miles.
1928 .. .. .	1,051	478	5	199	1,733
1929 .. .. .	1,052	648	5	265	1,970
1930 .. .. .	1,052	771	5	317	2,145
1931 .. .. .	1,052	771	5	317	2,145
1932 .. .. .	1,052	771	5	317	2,145

RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES  
—continued.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>AVERAGE MILES WORKED.</b>					
	Miles.	Miles.	Miles.	Miles.	Miles.
1928 .. ..	1,051	478	5	199	1,733
1929 .. ..	1,052	566	5	265	1,888
1930 .. ..	1,052	760	5	307	2,124
1931 .. ..	1,052	771	5	317	2,145
1932 .. ..	1,052	771	5	317	2,145
<b>TRAIN MILES RUN.(a)</b>					
1928 .. ..	485,848	359,160	15,632	105,042	965,682
1929 .. ..	500,402	408,970	12,915	82,861	1,005,148
1930 .. ..	453,151	239,303	9,865	43,594	745,913
1931 .. ..	403,615	200,051	6,900	40,686	651,252
1932 .. ..	319,747	154,529	6,865	35,819	516,960

(a) Traffic Train Mileage (exclusive of "Assistant" and "Light" mileages).

8. Cost of Construction and Equipment.—In the following table particulars are given of the cost of construction and equipment of the undermentioned railways for each of the years 1928 to 1932 :—

RAILWAYS, FEDERAL.—CAPITAL COST.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.(a)	North Australia.	
<b>TOTAL COST OF CONSTRUCTION AND EQUIPMENT OF LINES OPEN.</b>					
	£	£	£	£	£
1928 .. ..	7,682,126	2,908,644	87,369	1,760,756	12,438,895
1929 .. ..	7,736,355	3,882,006	83,888	2,431,964	14,134,213
1930 .. ..	7,805,945	4,730,364	84,253	2,749,807	15,370,369
1931 .. ..	7,840,504	4,760,548	84,429	2,750,718	15,436,199
1932 .. ..	7,879,397	4,769,938	84,429	2,755,700	15,489,464
<b>COST PER MILE OPEN.</b>					
1928 .. ..	7,306	6,086	17,686	8,863	7,178
1929 .. ..	7,355	5,991	16,981	9,183	7,176
1930 .. ..	7,421	6,132	17,064	8,688	7,167
1931 .. ..	7,454	6,171	17,091	8,691	7,197
1932 .. ..	7,490	6,187	17,091	8,693	7,221

(a) Exclusive of Rolling Stock the property of New South Wales Government Railways.

The sum of £1,528,821, of which £112,006 was for surveys, etc., has been provided from revenue for capital purposes to 30th June, 1930, and has been included in the total shown above.

9. **Gross Revenue.**—(i) *Total, per average mile worked, and per train mile run.* The following table shows the total revenue from all sources, the revenue per average mile worked, and the revenue per train mile run for each of the undermentioned railways for the financial years 1928 to 1932 inclusive :—

**RAILWAYS, FEDERAL.—GROSS REVENUE, TOTAL, ETC.**

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>TOTAL GROSS REVENUE.</b>					
	£	£	£	£	£
1928 .. ..	333,608	188,143	9,044	69,054	599,849
1929 .. ..	332,199	184,046	6,824	46,156	569,225
1930 .. ..	265,502	99,626	6,473	32,475	404,136
1931 .. ..	187,681	88,479	3,964	29,010	309,134
1932 .. ..	173,402	79,400	3,810	23,495	280,107
<b>GROSS REVENUE PER AVERAGE MILE WORKED.</b>					
1928 .. ..	317	394	1,831	348	346
1929 .. ..	316	325	1,381	174	302
1930 .. ..	252	131	1,311	106	190
1931 .. ..	179	115	802	92	144
1932 .. ..	165	103	762	74	131
<b>GROSS REVENUE PER TRAIN-MILE RUN.</b>					
	d.	d.	d.	d.	d.
1928 .. ..	164.80	125.72	138.85	157.77	149.08
1929 .. ..	159.32	108.00	126.81	133.69	135.92
1930 .. ..	140.65	99.92	157.48	178.79	130.03
1931 .. ..	111.60	106.15	137.88	171.13	113.92
1932 .. ..	130.15	123.32	133.20	157.42	130.04

(ii) *Classification and Percentages.* During the year 1931-32 receipts from coaching traffic, and goods and live stock represented 53 per cent. and 24 per cent. of the total gross revenue of the Trans-Australian line, similar percentages for the remaining lines being :—Central Australia line 17 per cent. and 78 per cent., Federal Capital Territory line 57 per cent. and 43 per cent., and North Australia line 14 per cent. and 36 per cent. coaching, and goods and live stock revenue respectively.

The miscellaneous receipts for the year 1931-32 include an amount of £14,037, revenue from dining cars and refreshment services on the Trans-Australian and Central Australia Railways. A sum of £17,461 was received from this source during the previous year.

10. **Working Expenses.**—(i) *Total.* The following table shows the total working expenses, and the percentages on the corresponding gross revenues of each railway for each year from 1928 to 1932 :—

Details of the annual expenditure on (a) maintenance of ways, works and buildings, (b) locomotives, carriages and wagons repairs and renewals, (c) traffic expenses, and (d) compensation, general and miscellaneous charges, are given in (iii) following.

## RAILWAYS, FEDERAL.—WORKING EXPENSES, TOTAL, ETC.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>TOTAL WORKING EXPENSES.</b>					
	£	£	£	£	£
1928 .. ..	287,942	170,285	11,234	67,991	537,452
1929 .. ..	300,270	196,329	10,331	56,862	563,792
1930 .. ..	296,403	194,918	8,031	55,229	554,581
1931 .. ..	241,490	155,438	6,363	55,330	458,621
1932 .. ..	197,147	111,555	5,012	44,088	357,802
<b>PERCENTAGE OF WORKING EXPENSES ON REVENUE.</b>					
	%	%	%	%	%
1928 .. ..	86.30	90.50	124.21	98.46	89.59
1929 .. ..	90.39	106.67	151.39	123.20	99.05
1930 .. ..	111.61	195.65	124.07	170.07	137.23
1931 .. ..	128.67	175.68	160.52	190.73	148.36
1932 .. ..	113.69	140.49	131.55	187.65	127.74

Compared with results for the previous year, the percentage of working expenses on revenue shows decreases for each railway. There was a decrease in earnings on each of the railways, due mainly to (a) trade depression generally; (b) aerial and other competition on the Trans-Australian railway; and (c) serious washaways on the Trans-Australian and Central Australia railways. The reductions in working expenses were due to (a) the operation of the Commonwealth Financial Emergency Act; (b) improved methods of working; and (c) the closest scrutiny over every item of expenditure.

(ii) *Averages.* The next table gives the working expenses per average mile worked, and per train-mile run for each railway for the years 1928 to 1932:—

## RAILWAYS, FEDERAL.—WORKING EXPENSES, AVERAGES.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>WORKING EXPENSES PER AVERAGE MILE WORKED.</b>					
	£	£	£	£	£
1928 .. ..	274	356	2,274	342	310
1929 .. ..	286	347	2,091	215	299
1930 .. ..	282	256	1,627	180	261
1931 .. ..	230	202	1,288	175	214
1932 .. ..	187	145	1,002	139	167
<b>WORKING EXPENSES PER TRAIN-MILE RUN.</b>					
	d.	d.	d.	d.	d.
1928 .. ..	142.24	113.79	172.47	155.34	133.57
1929 .. ..	144.01	115.21	191.98	164.70	134.62
1930 .. ..	156.98	195.49	195.38	304.05	178.44
1931 .. ..	143.60	186.48	221.32	326.38	169.01
1932 .. ..	147.98	173.26	175.21	295.40	166.11

(iii) *Classification and Percentages.* Of the total working expenses of the Federal Railways during the year 1931-32, maintenance expenses represented 38 per cent., locomotive, carriage and wagon charges 39 per cent., and traffic expenses 14 per cent. Details for each line were as follow :—Trans-Australian line 33 per cent., 44 per cent. and 12 per cent.; Central Australia line 46 per cent., 36 per cent., and 12 per cent.; Federal Capital Territory line 15 per cent., 39 per cent. and 40 per cent.; and North Australia line 47 per cent., 24 per cent. and 22 per cent. respectively.

11. *Passenger Journeys, and Tonnage of Goods and Live Stock.*—(i) *General.* In the next table particulars are given of the passenger journeys and tonnage of goods and live stock carried on the Federal railways during the years 1928 to 1932 :—

## RAILWAYS, FEDERAL.—TRAFFIC.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
PASSENGER JOURNEYS.					
	No.	No.	No.	No.	No.
1928 .. ..	36,212	60,410	53,255	5,899	155,776
1929 .. ..	36,030	57,993	47,470	5,135	146,628
1930 .. ..	29,163	45,235	45,457	3,238	123,093
1931 .. ..	19,209	31,107	31,248	3,384	84,948
1932 .. ..	15,875	25,683	29,417	3,101	74,076
TONNAGE OF GOODS AND LIVE STOCK CARRIED.					
	tons.	tons.	tons.	tons.	tons.
1928 .. ..	45,087	96,799	41,848	22,628	206,362
1929 .. ..	40,750	90,734	23,196	14,919	169,599
1930 .. ..	20,906	44,047	20,966	7,024	92,943
1931 .. ..	12,360	38,831	10,077	3,296	64,564
1932 .. ..	21,316	65,538	7,807	3,039	97,700

(ii) *Passenger-Mileage Summary.* The appended table gives particulars of "Passenger-Mileage" on each of the Federal railways for the year 1931-32 :—

## RAILWAYS, FEDERAL.—PASSENGER-MILES SUMMARY, 1931-32.

Railway.	Passenger Train Mileage.	Number of Passenger Journeys.	Total "Passenger-Miles."	Amount Received from	Average Number	Average Mileage	Average Earnings	Average Fare	Density of Traffic per Average Mile Worked.
				Passengers.	of Passengers carried per Train Mile.	per Passenger Journey.	per "Passenger-Mile."	per Passenger Journey.	
			,000 omitted.	£		Miles.	d.	£ s. d.	
Trans-Australian ..	224,735	15,875	13,318	61,747	59	839	1. 11	3 17 9	12,661
Central Australia ..	22,737	25,683	1,576	8,939	69	61	1. 36	0 6 11	2,043
Federal Capital Territory ..	6,007	29,417	146	1,214	24	5	2. 00	0 0 10	29,566
North Australia ..	11,848	3,101	336	2,766	28	108	1. 98	0 17 10	1,062

(iii) *Ton-Mileage Summary.* Particulars of ton-mileage are shown hereunder in respect of each of the Federal railways for the year 1931-32 :—

## RAILWAYS, FEDERAL.—“TON-MILEAGE” SUMMARY, 1931-32.

Railway.	Goods Train Mileage.	Total Tons Carried.	Total “Ton-Miles.”	Goods Earnings.	Average Freight-paying Load per Train.	Average Haul per ton.	Earnings per “Ton-Mile.”	Density of Traffic per Average Mile Worked.
			‘,000 omitted.	£	Tons.	Miles.	d.	
Trans-Australian ..	95,012	21,316	6,751	41,999	(a) 71	317	1.49	6,419
Central Australia ..	131,792	65,538	7,966	61,589	(a) 60	122	1.85	10,327
Federal Capital Territory ..	858	7,807	39	1,629	(a) 41	5	10.02	7,894
North Australia ..	23,971	3,039	425	8,400	(a) 18	140	4.74	1,344

(a) Approximate.

12. **Rolling Stock.**—Particulars of locomotives and rolling stock in use on the Federal railways, may be found on page 22 of Transport and Communication Bulletin No. 23.

13. **Employees.**—(i) *General.* The following table shows the number of employees on the Federal railways at 30th June in each year from 1928 to 1932 inclusive, classified according to salaried and wages staffs :—

## RAILWAYS, FEDERAL.—EMPLOYEES.

Railway.	30th June—									
	1928.		1929.		1930.		1931.		1932.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Trans-Australian	126	756	128	776	117	733	106	(b) 554	102	(b) 556
Central Australia	69	492	68	539	59	383	57	331	55	275
Federal Capital Territory (a) ..	..	..	5	8	5	7	4	5	4	5
North Australia ..	24	320	22	178	15	93	13	100	14	82
Total ..	219	1,568	223	1,501	196	1,216	180	990	175	918

(a) Worked by New South Wales Government Railways until 1st July, 1928. (b) Includes those engaged on construction work, 1931, 4 and 1932, 15.

(ii) *Average Employed throughout Year.* The average number of employees throughout the year 1931-32 was 179 salaried staff and 1,020 wages staff (100 of whom were on construction work).

14. **Accidents.**—The following table shows the number of accidents in each of the years 1928 to 1932 :—

## RAILWAYS, FEDERAL.—ACCIDENTS.

Railway.	Number of Persons.									
	Killed.					Injured.				
	1928.	1929.	1930.	1931.	1932.	1928.	1929.	1930.	1931.	1932.
Trans-Australian ..	3	..	..	..	..	3	3	..	2	3
Central Australia	2	..	I	..	..	7	7	..	2	I
Federal Capital Territory ..	..	..	..	..	..	I	..	..	..	I
North Australia ..	2	..	..	..	..	9	4	..	..	I
Total ..	7	..	I	..	..	20	14	..	4	6

Of those injured in 1932, five were railway employees, the remaining one being a passenger. Further details are available on page 25 of Transport and Communication Bulletin No. 23.

### § 3. State Railways.

1. **Administration and Control of State Railways.**—The policy of Government control of the railways has been adopted in each State, and earlier issues of the Year Book (see No. 6, p. 693) contain a description of the methods adopted by the various State Governments in the control and management of their railways.

2. **Mileage Open, 1928 to 1932.**—(i) *General.* The following table shows the length of State railways open for traffic on the 30th June in the years 1928 to 1932 :—

**RAILWAYS, STATE.—MILEAGE OPEN FOR TRAFFIC.**

Year ended 30th June—	N.S.W.	Victoria	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1928 .. .. .	5,867	4,697	6,345	2,527	3,977	658	24,071
1929 .. .. .	5,940	4,699	6,447	2,542	4,079	653	24,360
1930 .. .. .	5,974	4,713	6,447	2,536	4,111	679	24,460
1931 .. .. .	6,044	4,717	6,529	2,529	4,180	665	24,664
1932 ... .. .	6,126	4,721	6,558	2,529	4,235	645	24,814

A graph indicating the mileage open in Australia at the end of each of the years 1870 to 1932 accompanies this chapter.

The appended statement shows the actual mileage opened for traffic in the year 1932, also the annual average increase in mileage opened since 1922 in each State :—

**RAILWAYS, STATE.—MILEAGE OPENED ANNUALLY.**

Mileage.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
Mileage opened during 1931-32 .. .. .	81.60	4.02	29.31	..	54.68	-20.00	149.61
Average annual mileage increase for 10 years to 30th June, 1932 ..	100.95	40.39	75.88	17.20	69.68	0.81	304.91

(ii) *New South Wales.* During the year ended 30th June, 1932, the following new lines were opened for traffic, viz. :—Wolli Creek to East Hills 10.22 miles, Sydney (Central) to Waverton 3.74 miles, South Grafton to Grafton 1.62 miles and Camurra to Boggabilla 74.40 miles, while the line from Westmead to Rogan's Hill 7.57 miles was closed. Minor adjustments decreased the length of existing lines by 0.81 miles, the total increase for the year being therefore 81.60 miles.

(iii) *Victoria.* During the year ended 30th June, 1932, no new lines were opened, but adjustments were made increasing the previous length 4.02 miles, the main adjustment being due to the completion of the deviation in the Wodonga-Tallangatta line.

(iv) *Queensland.* The following new mileage was opened during the year :—Wallaville to Morganville 6.51 miles, Meandarra to Glenmorgan 13.84 miles and Mungungo to Monto 8.92 miles. An adjustment of 0.04 miles brought the total increase to 29.31 miles.

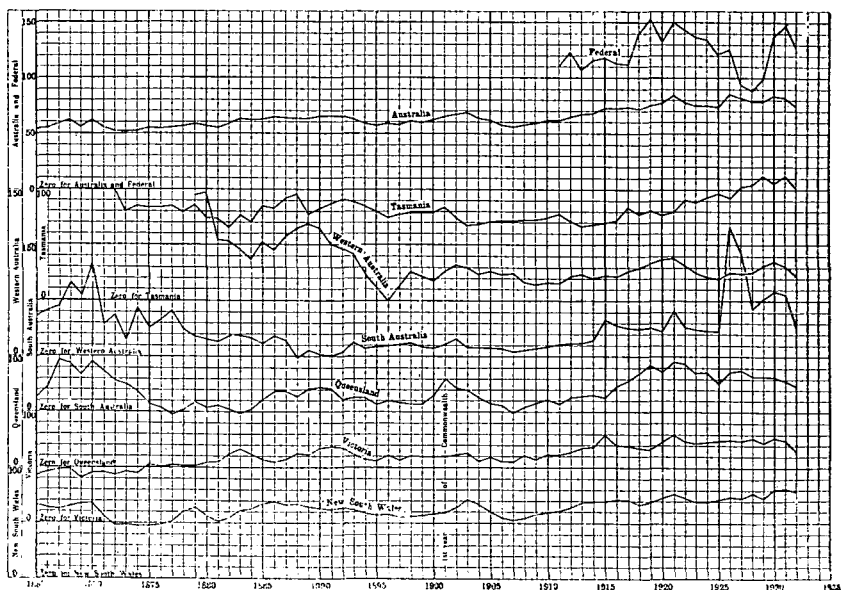
(v) *South Australia.* There were no alterations to route mileage during this year.

(vi) *Western Australia.* The following new mileage was opened for traffic during the year :—Meekatharra to Paroo 67.15 miles, while the Kalgoorlie to Kanowna line 12.47 miles was closed, giving a total increase of 54.68 miles.

(vii) *Tasmania.* The line from Flowerdale Junction to Mawcena 20.00 miles was closed, there being no other alterations to the existing route mileage.

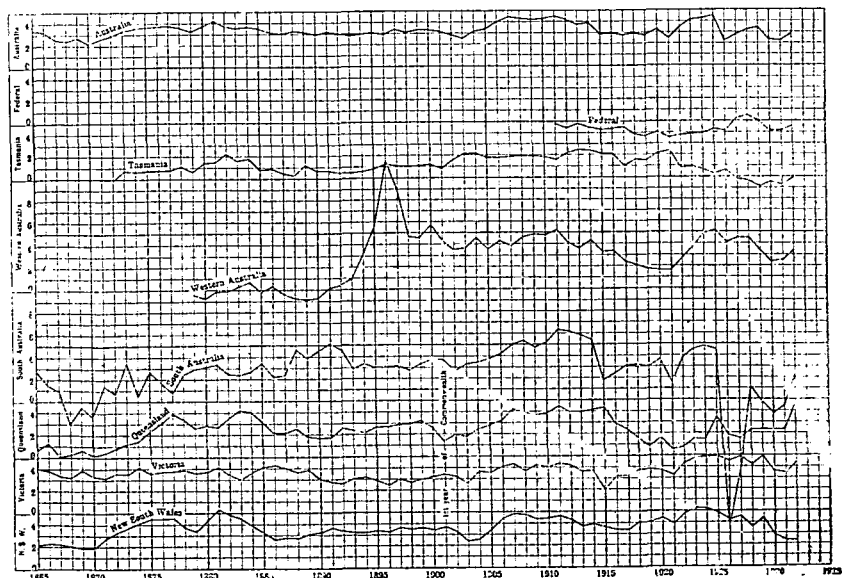


PERCENTAGES OF WORKING EXPENSES ON GROSS REVENUE OF GOVERNMENT RAILWAYS, 1865 TO 1932.



EXPLANATION.—The base of each small square represents throughout one year. The vertical side of a small square denotes throughout 10 per cent., the heavy zero lines being different for each State and Australia, with, however, the exceptions that the zero lines for Australia and Federal are identical.

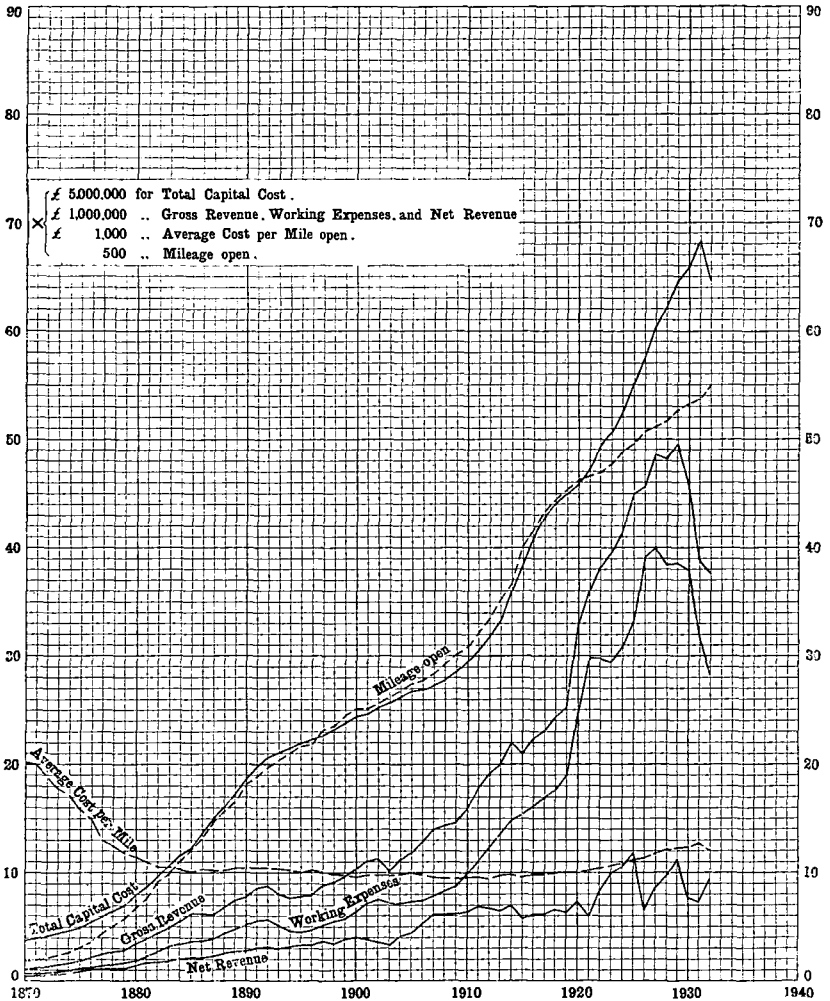
PERCENTAGES OF NET REVENUE ON CAPITAL COST OF GOVERNMENT RAILWAYS, 1865 TO 1932.



EXPLANATION.—The base of each small square represents throughout one year. The vertical side of a small square denotes 1 per cent., the thick zero lines, however, for each State and Australia being different.

Where the curve for any State falls below that State's zero line, loss is indicated, the working expenses having exceeded the gross revenue.

FINANCIAL POSITION OF THE GOVERNMENT RAILWAYS OF AUSTRALIA, 1870 TO 1932.



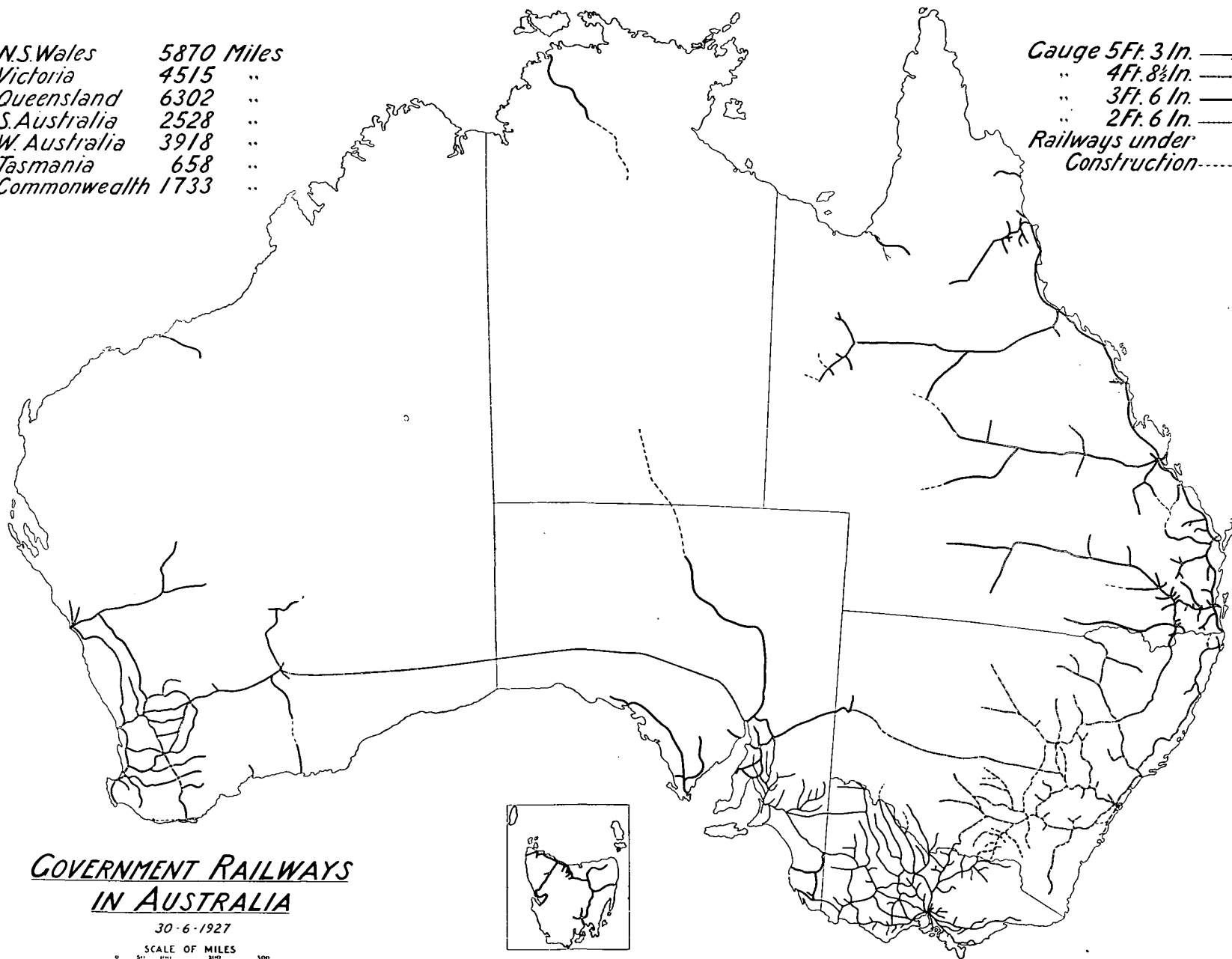
EXPLANATION.—The base of each small square represents throughout one year. The significance of the vertical height of each square varies according to the nature of the several curves.

In the curve for the total capital cost, the vertical side of each square represents £5,000,000.

In the curves for (i) gross revenue, (ii) working expenses, and (iii) net revenue, the vertical side of each small square represents £1,000,000. For the curve of average cost per mile open, the vertical side of each small square represents £1,000. The mileage open is shown by a dotted curve, the vertical side of each small square representing 500 miles.

<i>N.S. Wales</i>	<i>5870 Miles</i>	
<i>Victoria</i>	<i>4515</i>	<i>..</i>
<i>Queensland</i>	<i>6302</i>	<i>..</i>
<i>S. Australia</i>	<i>2528</i>	<i>..</i>
<i>W. Australia</i>	<i>3918</i>	<i>..</i>
<i>Tasmania</i>	<i>658</i>	<i>..</i>
<i>Commonwealth</i>	<i>1733</i>	<i>..</i>

*Gauge 5 Ft. 3 In.* ———  
*.. 4 Ft. 8 1/2 In.* ———  
*.. 3 Ft. 6 In.* ———  
*.. 2 Ft. 6 In.* ———  
*Railways under Construction* - - - - -



3. Length and Gauge of Railway Systems in each State.—In all the States the Government railways are grouped, for the convenience of administration and management, into several divisions or systems. A summary showing concisely the gauge and length of the main and branch lines included in each division or system in the different States for the year ended 30th June, 1932, is given in the Transport and Communication Bulletin No. 23 issued by this Bureau.

4. Average Mileage Worked and Train-Miles Run.—The total mileage open for traffic at the end of each financial year has been given previously, but, in considering the returns relating to revenue and expenditure and other matters, it is desirable to know the average number of miles actually worked during each year. The next table shows the average number of miles worked and the total number of train-miles run by the Government railways of each State during the years 1928 to 1932 inclusive :—

RAILWAYS, STATE.—MILEAGE WORKED AND TRAIN-MILES RUN.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
AVERAGE MILEAGE WORKED.							
1928 ..	5,826	4,661	6,340	2,528	3,971	658	23,984
1929 ..	5,903	4,698	6,387	2,545	3,993	654	24,180
1930 ..	5,959	4,708	6,447	2,538	4,110	660	24,422
1931 ..	6,013	4,710	6,509	2,535	4,123	665	24,555
1932 ..	6,050	4,720	6,550	2,529	4,214	645	24,708

TRAIN-MILES RUN. (a)

1928 ..	26,896,580	17,694,928	11,655,122	6,503,474	5,729,735	1,416,741	69,896,580
1929 ..	27,382,124	17,979,219	11,893,147	5,765,356	5,829,465	1,465,929	70,255,250
1930 ..	26,713,951	17,679,565	11,838,713	5,551,082	5,729,796	1,594,487	69,028,594
1931 ..	25,628,405	15,945,315	10,883,045	4,991,695	5,402,694	1,251,102	64,102,256
1932 ..	25,848,580	15,363,776	10,964,819	4,914,265	5,093,179	1,130,122	63,314,741

(a) Traffic Train-Miles (exclusive of "Assistant" and "Light" mileages).

5. Lines under Construction, and Lines Authorized, 1932.—(i) *General.* The following statement gives particulars at the 30th June, 1932, of the mileage of State railways (a) under construction, and (b) authorized for construction but not commenced :—

RAILWAYS, STATE.—MILEAGE UNDER CONSTRUCTION AND AUTHORIZED, 30th JUNE, 1932.

Particulars.	N.S.W.	Vic. (b)	Q'land.	S.A.	W.A.	Tas.	All States.
Mileage under construction .. ..	(a) 38.75	102.75	(c) 8.00	..	130.27	..	279.77
Mileage authorized but not commenced .. ..	366.24	39.50	1,130.00	26.25	319.85	..	1,881.84

(a) Exclusive of 127 miles on which work has been suspended.

(b) See sub-section (b) below.

(c) Exclusive of 186 miles on which work has been suspended.

(ii) *Lines under Construction.* In spite of the great extensions of State railways since the year 1875, there are still, in some of the States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States is to extend the existing lines inland in the form of light railways as settlement increases, and while it is true that lines which were not likely to be commercially successful in the immediate future have been constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting is kept in view.

(a) *New South Wales.* The total mileage under construction was 38.75 miles, from Moss Vale to Port Kembla. Work has been suspended on the Guyra to Dorrigo (89 miles) and Casino to Bonalbo (38 miles) lines.

(b) *Victoria.* In this State 35.50 miles of 5 ft. 3 in. gauge lines have been partially constructed, from Nowingi to Millewa South, work thereon being temporarily suspended. Under the provisions of the Border Railways Act 1922 (Vic. 3194) the following lines are under construction in New South Wales territory, viz. :—Euston to Lette (30.25 miles); and Yarrowonga to Oaklands (37 miles). Work has also been suspended on the former line. On completion, these lines, which are of 5 ft. 3 in. gauge, will be taken over and operated by the Victorian Railways Commissioners.

(c) *Queensland.* In previous issues of the Year Book details were given of the scheme of railway construction under the provisions of the North Coast Railway Act 1910 (see Year Book No. 15, p. 551). On the 30th June, 1932, the following line was under construction :—Central Division—3 ft. 6 in. gauge—Thangool to Lawgi (8 miles). The following lines are partially constructed, but work thereon is temporarily suspended :—Goondoon to Kalliwa Creek (18 miles); Yaraka to Powell's Creek (27 miles); Dajarra to Moonah Creek (41 miles); Rannes to Monto (63 miles); and Winton to 37-Mile (37 miles); a total of 186 miles.

(d) *South Australia.* At 30th June, 1932, no railway construction work was in progress.

(e) *Western Australia.* The following lines were in course of construction by the Railways Department on the 30th June, 1932 :—Paroo to Willuna (44.18 miles); Pemberton to Westcliffe (27.90 miles); and Lake Grace to Karlgarin (58.19 miles); a total of 130.27 miles.

(f) *Tasmania.* At 30th June, 1932, no railway construction work was in progress.

(iii) *Lines Authorized for Construction.* (a) *New South Wales.* At the 30th June, 1932, the following lines had been authorized for construction but not commenced :—Gilgandra to Collie (21.54 miles); Jerilderie towards Deniliquin (25.00 miles); Rand to Bull Plain (27.55 miles); Canowindra to Gregra (33.87 miles); St. Leonards to Eastwood (9.07 miles); Sandy Hollow via Gulgong to Maryvale (146.48 miles); Inverell to Ashford (32 miles); Bungendore to Captain's Flat (21.18 miles); Gwabegar to Burren Junction (36.25 miles); Eastern Suburbs to Bondi (7.75 miles); and Western Suburbs to Western Road (5.55 miles); a total distance of 366.24 miles.

(b) *Victoria.* The following lines were authorized, but construction had not been commenced up to the end of June, 1932 :—5 ft. 3 in. gauge : La La Siding to Big Pat's Creek (2.50 miles); Casterton to Nangeela (9 miles); and Orbost to Brodribb (6 miles). Under the Border Railways Act 1922, the following line has been authorized for construction in New South Wales Territory :—Mildura to Gol Gol (22 miles); an aggregate distance of 39.50 miles.

(c) *Queensland.* In addition to the new lines upon which work has been commenced, Parliament has authorized the construction of the following parts of the Great Western Railway—Section A, from Quilpie to Eromanga (120 miles); Section B, from Powell's Creek (224 miles); Section C, from 37-Mile to Springvale (324 miles); and Section D, from Moonah Creek (216 miles). The following lines were also authorized for construction :—Texas to Silverspur (9 miles); Mount Edwards to Maryvale (28 miles); Lanefield to Rosevale (17 miles); Gatton to Mount Sylvia (11 miles); Wandooan to Taroom (42 miles); Dirranbandi extension (52 miles); Yarraman to Nanango (16 miles); Brooloo to Kenilworth (10 miles); Dobbyn to Myally Creek (50 miles); and Pearamon towards Boongee (11 miles); a total of 1,130 miles.

(d) *South Australia.* Parliament has authorized the construction of a line on the 3 ft. 6 in. gauge from Keilpa to Mangalo Hall (26.25 miles).

(e) *Western Australia.* The following lines were authorized for construction up to the 30th June, 1932:—Yarramony to Merredin (85 miles); Brookton to Dale River (28 miles); Boyup Brook to Cranbrook (95.23 miles); Manjimup to Mount Barker (107 miles); Leighton to Robb's Jetty (4.62 miles); a total distance of 319.85 miles.

(f) *Tasmania.* There were no new railways authorized on which work had not been commenced at 30th June, 1932.

6. **Cost of Construction and Equipment.**—(i) *General.* The total cost of construction and equipment of the State railways as distinct from those owned by the Commonwealth Government at the 30th June, 1932, amounted to £307,875,986, representing an average cost of £47.00 per head of population. If the cost of railways owned by the Commonwealth Government is included, the total capital cost (£323,365,450) is equivalent to an amount of £49.37 per head of the population of the Commonwealth, while the total mileage open (26,958.38 miles) per 1,000 of population is 4.12. Particulars of the capital expenditure incurred on lines open for traffic are given in the following table:—

**RAILWAYS, STATE.—MILEAGE AND COST TO 30th JUNE, 1932.**

State.	Length of Line Open (Route).	Total Cost of Construction and Equipment.	Average Cost per Mile Open.	Cost per Head of Population.	Mileage per 1,000 of Population at 30th June, 1932.
	Miles.	£	£	£	Miles.
New South Wales (a) ..	(b)6,125.60	(d)137,792,319	(d) 22,493	(d) 54.28	(c) 2.41
Victoria .. .. .	4,720.77	74,415,458	15,763	41.20	2.61
Queensland .. .. .	(b)6,558.09	(d) 33,884,190	(d) 5,167	(d) 34.90	(c) 6.75
South Australia (a) ..	2,529.26	27,202,936	10,756	46.06	4.28
Western Australia (a) ..	4,235.06	23,648,654	5,584	55.98	10.02
Tasmania .. .. .	644.90	6,561,429	10,173	29.58	2.91
All States .. .. .	24,813.68	(c)307,875,986	(c) 12,407	(c) 47.00	(c) 3.79

(a) Exclusive of Federal railways. (b) Includes portion of Grafton-South Brisbane uniform gauge line—New South Wales 26 miles, Queensland 68.82 miles (see para. 4, page 167). (c) Includes Grafton-South Brisbane line. (d) Exclusive of Grafton-South Brisbane line.

The lowest average cost (£5,584) per mile open is in Western Australia, and the highest (£22,493) in New South Wales, as compared with an average of £12,407 for all States. There were few costly engineering difficulties in Western Australia, and the fact that contractors were permitted to carry traffic during the term of their contracts considerably reduced expenditure, particularly in respect of all gold field contracts.

The reduction of £28,000,000 in the capital cost of the Queensland railways is the result of a continued agitation on the part of the railway authorities for some relief from the over-capitalization of the government railways. As the latter are largely a means of developing the country, it follows that they cannot be conducted as a purely commercial undertaking, nor can they be expected to show a profit after payment of operation costs and interest charges on capital invested. As it was deemed hardly equitable to burden the railways with the interest charges on capital expended largely in developing the State, part of the capitalization of the railways was transferred to a separate fund by "The Railway (Capital Indebtedness) Reduction Act of 1931."

The large increases in the capital cost of the New South Wales railways during the last few years are mainly attributable to the electrification of suburban lines and the construction of the underground city railway.

In the table above, the figures relating to cost of construction and equipment do not include stores advance accounts and the discounts and flotation charges on loans allocated to the railways. This will explain the differences between the amounts shown therein for the various States and those shown in the several Railway Reports.

(ii) *Capital Cost, All Lines.* (a) *Total.* The increase in the total capital cost of construction and equipment of Government railways for each year from 1928 to 1932 is shown in the following table :—

## RAILWAYS, STATE.—CAPITAL COST OF LINES OPEN.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL COST OF LINES OPEN.</b>							
	£	£	£	£	£	£	£
1928 ..	116,221,374	72,282,201	56,281,445	26,021,454	21,403,256	6,483,281	298,693,011
1929 ..	122,566,422	73,061,522	58,251,561	26,835,717	22,427,112	6,494,003	309,636,337
1930 ..	124,555,236	74,193,518	58,727,528	27,272,316	22,846,871	6,534,186	314,129,655
1931 ..	130,802,362 <sup>a</sup>	74,392,935	59,497,495 <sup>a</sup>	27,255,643	23,329,093	6,549,965	326,108,493
1932 ..	137,792,319 <sup>a</sup>	74,415,458	33,884,190 <sup>a</sup>	27,202,936	23,648,654	6,561,429	337,875,986

## COST PER MILE OPEN.

1928 ..	19,809	15,390	8,871	10,297	5,382	9,849	12,409
1929 ..	20,633	15,548	9,035	10,558	5,498	9,945	12,711
1930 ..	20,849	15,743	9,109	10,756	5,558	9,617	12,843
1931 ..	(a) 21,735	15,753	(a) 9,210	10,776	5,581	9,851	(b) 13,222
1932 ..	(a) 22,493	15,763	(a) 5,167	10,756	5,584	10,173	(b) 12,407

(a) Exclusive of Grafton-South Brisbane line.

(b) Includes Grafton-South Brisbane line.

(b) *From Consolidated Revenue.* The following table shows the amounts provided from Consolidated Revenue for construction and equipment to 30th June, 1932 :—

## RAILWAYS, STATE.—EXPENDITURE FROM CONSOLIDATED REVENUE FOR CONSTRUCTION AND EQUIPMENT TO 30th JUNE, 1932.

To 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1932 ..	675,245	4,325,022	..	..	640,908	16,935	5,658,110

(iii) *Loan Expenditure.* The subjoined table shows the total net loan expenditure on Government railways in each State, except Tasmania, and on Government railways and tramways in the latter State for the years 1928 to 1932 :—

## RAILWAYS, STATE.—NET LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	All States.
	£	£	£	£	£	£	£
1928 ..	8,172,114	1,674,906	1,646,982	555,798	806,583	37,196	12,893,579
1929 ..	6,356,971	1,229,521	1,212,131	706,144	826,204	Cr. 11,684	10,319,287
1930 ..	5,034,505	947,527	739,548	495,153	849,335	Cr. 69,940	7,906,128
1931 ..	2,312,557	455,293	434,350	Cr. 55,467	454,159	44,725	3,645,617
1932 ..	1,052,137	..	50,275	Cr. 127,576	137,025	Cr. 15,008	1,096,853

(a) Including tramways.

The following statement shows the total loan expenditure on railways to the 30th June, 1932 :—

## RAILWAYS, STATE.—TOTAL LOAN EXPENDITURE TO 30th JUNE, 1932.

State.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.(a)	All States.
Expenditure	£ 138,411,296	£ 73,929,260	£ 61,680,964	£ 32,042,091	£ 23,860,653	£ 6,918,344	£ 336,842,608

(a) Including tramways.

7. **Gross Revenue.**—(i) *General.* The total revenue from all sources, the revenue per average mile worked, and the revenue per train-mile run during each financial year from 1928 to 1932 inclusive were as follow :—

## RAILWAYS, STATE.—GROSS REVENUE.

Year ended 30th June—	N.S.W.	Victoria. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
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## TOTAL GROSS REVENUE.

	£	£	£	£	£	£	£
1928 .. ..	19,029,512	12,821,059	7,381,532	3,941,276	3,858,051	554,743	47,586,173
1929 .. ..	20,415,616	13,162,973	7,568,647	3,593,646	3,799,764	503,855	49,044,501
1930 .. ..	18,628,692	12,001,806	7,302,281	3,276,945	3,659,203	507,374	45,574,301
1931 .. ..	16,005,741	10,008,358	6,476,979	2,586,132	3,198,913	400,176	38,676,299
1932 .. ..	15,801,022	9,454,304	5,994,523	2,746,341	2,922,385	381,283	37,299,858

## GROSS REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£
1928 .. ..	3,266	2,751	1,164	1,559	972	843	1,984
1929 .. ..	3,458	2,802	1,185	1,412	951	711	2,028
1930 .. ..	3,126	2,549	1,133	1,291	890	769	1,858
1931 .. ..	2,662	2,124	995	1,020	776	602	1,575
1932 .. ..	2,612	2,003	915	1,086	693	591	1,510

## GROSS REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1928 .. ..	169.80	173.89	152.00	145.44	161.60	93.98	163.39
1929 .. ..	178.04	175.71	152.73	149.60	156.43	86.01	167.54
1930 .. ..	167.34	163.01	147.79	141.68	153.27	80.94	157.76
1931 .. ..	149.89	150.64	142.83	124.34	142.10	76.77	144.80
1932 .. ..	146.71	147.69	131.21	134.12	137.71	80.97	141.39

(a) Includes £800,000, contributions from consolidated revenue towards losses on working of country developmental lines. (b) Includes contributions from consolidated revenue in respect of losses on non-paying lines, 1930-31, £158,508, 1931-32, £139,429.

The amounts of revenue earned per average mile worked and per train-mile run in respect of (a) coaching and (b) goods and live stock traffic, separately, are given later.

(ii) *Coaching, Goods, and Miscellaneous Receipts.* (a) *Totals.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The subjoined table shows the gross revenue for 1928 to 1932, classified according to the three chief sources of receipts. The total of the three items specified has already been given in the preceding paragraph.



## RAILWAYS, STATE.—COACHING, GOODS, ETC., RECEIPTS.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
COACHING TRAFFIC RECEIPTS.							
1928 ..	£ 7,851,512	£ 6,015,383	£ 2,410,293	£ 1,120,094	£ 1,028,656	£ 199,865	£ 18,625,803
1929 ..	8,124,716	5,871,037	2,444,697	1,013,296	979,999	180,295	18,614,040
1930 ..	7,440,016	5,428,350	2,377,798	807,090	928,435	177,799	17,159,488
1931 ..	5,870,676	4,378,162	2,021,666	635,490	724,989	144,526	13,775,509
1932 ..	5,606,430	3,946,053	1,762,225	631,104	649,890	132,456	12,728,158

GOODS AND LIVE STOCK TRAFFIC RECEIPTS.							
1928 ..	£ 10,228,586	£ 5,763,701	£ 4,824,885	£ 2,616,503	£ 2,619,816	£ 335,431	£ 26,388,922
1929 ..	10,379,192	6,251,682	4,949,614	2,358,579	2,610,193	305,287	26,854,547
1930 ..	9,353,867	5,599,182	4,780,114	2,249,895	2,523,302	311,669	24,818,029
1931 ..	7,841,406	4,817,808	4,191,161	1,787,747	2,289,638	241,458	21,169,218
1932 ..	7,853,315	4,805,738	4,008,966	1,948,293	2,106,129	234,986	20,957,427

MISCELLANEOUS RECEIPTS.							
1928 ..	949,414	(b) 1,041,975	146,354	204,679	209,579	19,447	2,571,448
1929 ..	1,911,708	1,040,254	174,336	221,771	209,572	18,273	3,575,914
1930 ..	1,832,809	974,274	144,369	219,960	207,466	17,906	3,396,784
1931 ..	2,293,659	812,388	264,152	162,895	184,286	14,192	3,731,572
1932 ..	2,341,277	702,513	223,332	166,944	166,366	13,841	3,614,273

(a) Includes £300,000, contributions from consolidated revenue towards losses on working of country developmental lines. (b) Includes contributions from consolidated revenue in respect of losses on non-paying lines, 1930-31, £158,508; 1931-32, £139,429.

(b) Percentages. The following table shows for the two years 1930-31 and 1931-32 the percentage which each class of receipts bears to the total gross revenue :—

## RAILWAYS, STATE.—PERCENTAGES OF RECEIPTS.

State.	1931.			1932.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	36.68	48.99	14.33	35.48	49.70	14.82
Victoria ..	43.74	48.14	8.12	41.74	50.83	7.43
Queensland ..	31.21	64.71	4.08	29.40	66.87	3.73
South Australia ..	24.57	69.13	6.30	22.98	70.94	6.08
Western Australia ..	22.66	71.58	5.76	22.24	72.07	5.69
Tasmania ..	36.12	60.34	3.54	34.74	61.63	3.63
All States ..	35.62	54.73	9.65	34.12	56.19	9.69

(c) *Averages for Passenger Earnings.* The subjoined table shows the passenger earnings per average mile of line worked and per passenger-train-mile in each State for the year ended the 30th June, 1932. Further particulars of passenger-mileage will be found in sub-paragraph 14 (i) hereinafter.

## RAILWAYS, STATE.—PASSENGER EARNINGS, AVERAGES, 1932.

State.	Number of Passenger-Train-Miles.	Passenger Earnings.		
		Gross.	Per Average Mile Worked.	Per Passenger-Train-Mile.
	No.	£	£	d.
New South Wales .. ..	17,148,109	4,943,790	817	69.19
Victoria .. ..	10,533,970	3,514,104	744	80.06
Queensland .. ..	4,676,854	1,319,524	201	67.71
South Australia .. ..	3,139,985	493,933	195	37.75
Western Australia .. ..	(a) 1,937,741	489,436	116	60.62
Tasmania .. ..	(a) 506,378	107,587	167	50.99
All States .. ..	37,943,037	10,868,374	440	68.74

(a) Includes "Assistant" and "Light" mileage.

(d) *Averages for Goods and Live Stock Traffic.* The gross receipts from goods and live stock traffic per average mile worked, per goods-train-mile, and per ton carried, for the year ended the 30th June, 1932, are given below. Particulars of ton-mileage will be found in sub-paragraph 14 (ii) hereinafter.

## RAILWAYS, STATE.—GOODS AND LIVE-STOCK TRAFFIC RECEIPTS, AVERAGES, 1932.

State.	Number of Goods-Train-Miles.	Goods and Live-Stock Tonnage.	Goods and Live-Stock Traffic Receipts.			
			Gross.	Per Average Mile Worked.	Per Goods-Train-Mile.	Per Ton Carried.
	No.	Tons.	£	£	d.	d.
New South Wales .. ..	8,700,471	610,054,212	7,853,315	1,300	216.63	187.46
Victoria .. ..	4,829,806	6,186,081	4,805,738	1,018	238.80	186.44
Queensland .. ..	6,287,965	3,860,668	4,008,966	612	153.01	249.22
South Australia .. ..	1,774,280	2,419,094	1,948,293	770	263.54	193.29
Western Australia .. ..	(a) 3,265,871	2,847,568	2,106,129	500	154.77	177.51
Tasmania .. ..	(a) 626,710	449,039	234,986	364	89.99	125.59
All States .. ..	25,485,103	25,816,662	20,957,427	848	197.36	194.83

(a) Includes "Assistant" and "Light" mileage.

(b) Exclusive of 157,110 tons of coal on which wayleave charges only were collected.

8. *Working Expenses.*—(i) *General.* In order to make an adequate comparison of the working expenses, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the railways of the different States, but also on different portions of the same systems. When traffic is light, the percentage of working expenses is naturally greater than where traffic is heavy; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading.

The following table shows the total annual expenditure and the percentage thereof on gross revenue in each State for the years 1928 to 1932 :—

## RAILWAYS, STATE.—WORKING EXPENSES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL WORKING EXPENSES.</b>							
	£	£	£	£	£	£	£
1928 .. ..	14,756,327	9,812,749	6,106,140	3,660,740	2,910,811	573,885	37,820,632
1929 .. ..	14,978,050	9,532,798	6,202,801	3,622,567	3,055,446	563,652	37,955,314
1930 .. ..	14,962,423	9,311,548	5,946,163	3,573,121	3,112,895	535,414	37,441,564
1931 .. ..	12,899,646	7,499,934	5,975,478	2,734,619	2,610,839	448,838	31,269,334
1932 .. ..	12,532,869	6,181,490	4,429,218	2,130,395	2,123,281	386,929	27,784,182

## PERCENTAGE OF WORKING EXPENSES ON GROSS REVENUE.

	%	%	%	%	%	%	%
1928 .. ..	77.54	76.54	82.72	93.20	75.45	103.45	79.48
1929 .. ..	73.37	72.42	81.95	100.80	80.41	111.86	77.39
1930 .. ..	80.33	77.58	81.43	109.04	85.07	105.53	82.52
1931 .. ..	80.59	74.94	78.36	105.74	81.62	112.16	80.85
1932 .. ..	79.32	65.38	73.89	77.57	72.65	101.48	74.49

The variation in the percentage of working expenses on the gross revenue in each State for the years 1865 to 1932 is illustrated in the graph which accompanies this chapter.

(ii) *Averages.* The next table shows the working expenses per average mile worked and per train-mile run in each State for the years 1928 to 1932 :—

## RAILWAYS, STATE.—WORKING EXPENSES, AVERAGES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>WORKING EXPENSES PER AVERAGE MILE WORKED.</b>							
	£	£	£	£	£	£	£
1928 .. ..	2,533	2,105	963	1,448	733	872	1,577
1929 .. ..	2,537	2,029	971	1,423	765	862	1,570
1930 .. ..	2,511	1,978	922	1,408	758	811	1,533
1931 .. ..	2,145	1,592	780	1,079	633	675	1,273
1932 .. ..	2,071	1,310	676	842	504	600	1,124

## WORKING EXPENSES PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1928 .. ..	131.67	133.09	125.74	135.09	121.92	97.22	129.86
1929 .. ..	131.28	127.25	125.17	150.80	125.79	96.22	129.66
1930 .. ..	134.42	126.47	120.34	154.48	130.39	85.41	130.18
1931 .. ..	120.80	112.88	111.93	131.48	115.98	86.10	117.07
1932 .. ..	116.36	96.56	96.95	104.04	100.05	82.17	105.32

(iii) *Distribution.* The subjoined table shows the distribution of working expenses under four chief heads of expenditure for the years 1928 to 1932 :—

## RAILWAYS, STATE.—DISTRIBUTION OF WORKING EXPENSES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>MAINTENANCE.</b>							
	£	£	£	£	£	£	£
1928 .. ..	2,596,755	2,109,404	1,589,177	584,350	731,860	140,989	7,752,535
1929 .. ..	2,538,981	1,926,157	1,608,978	658,941	748,123	158,302	7,639,482
1930 .. ..	2,583,896	1,749,068	1,529,521	678,976	800,784	133,459	7,475,704
1931 .. ..	2,199,347	1,394,185	1,401,338	438,462	576,723	117,319	6,127,374
1932 .. ..	2,346,791	1,110,987	1,221,829	335,280	470,544	102,116	5,587,547

## LOCOMOTIVE, CARRIAGE, AND WAGON CHARGES.

1928 .. ..	7,158,605	3,659,881	2,657,596	2,002,377	1,306,504	233,670	17,018,633
1929 .. ..	7,003,464	3,579,620	2,719,211	1,899,717	1,381,160	235,641	16,818,813
1930 .. ..	6,926,296	3,587,086	2,630,642	1,796,616	1,368,160	236,855	16,545,655
1931 .. ..	5,642,719	2,840,181	2,068,942	1,382,409	1,218,580	192,911	13,345,742
1932 .. ..	5,280,630	2,260,152	1,780,463	1,102,292	978,698	168,194	11,570,429

## TRAFFIC EXPENSES.

1928 .. ..	3,877,254	2,673,518	1,709,518	823,189	773,806	124,845	9,982,130
1929 .. ..	3,848,525	2,605,790	1,721,355	764,203	803,016	130,068	9,872,957
1930 .. ..	3,703,106	2,536,635	1,629,238	735,022	819,671	132,233	9,555,905
1931 .. ..	3,212,276	2,026,918	1,321,254	564,025	698,463	110,037	7,932,973
1932 .. ..	3,059,815	1,690,542	1,177,336	457,706	572,101	92,275	7,049,775

## OTHER CHARGES.

1928 .. ..	1,123,713	1,369,946	149,849	250,824	98,641	74,381	3,067,354
1929 .. ..	1,587,080	1,421,231	153,257	299,706	123,147	39,641	3,624,062
1930 .. ..	1,749,125	1,438,759	156,762	362,507	124,280	32,867	3,864,300
1931 .. ..	1,845,304	1,238,650	283,944	349,723	117,073	28,571	3,863,265
1932 .. ..	1,845,633	1,119,809	249,590	235,117	101,938	24,344	3,576,431

9. *Salaries and Wages.*—The following table shows the total amount paid in salaries and wages in each State during the years 1928 to 1932 :—

## RAILWAYS, STATE.—SALARIES AND WAGES PAID.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>TOTAL SALARIES AND WAGES PAID.</b>							
	£	£	£	£	£	£	£
1928 .. ..	12,693,706	7,725,188	4,751,885	2,915,912	2,442,997	345,803	30,875,491
1929 .. ..	12,422,298	7,436,531	4,805,836	2,499,872	2,551,056	374,107	30,089,700
1930 .. ..	11,656,142	7,097,012	4,649,032	2,437,783	2,587,456	364,636	28,792,061
1931 .. ..	10,167,293	5,587,539	3,851,295	1,743,574	2,099,947	314,590	23,764,238
1932 .. ..	9,637,122	4,435,648	3,341,129	1,382,707	1,620,084	260,943	20,677,633

10. *Net Revenue.*—(i) *Net Revenue and Percentage on Capital Cost.* The following table shows the net sums available to meet interest charges, also the percentage of such sums upon the capital cost of construction and equipment of lines open for traffic in each State for the years 1928 to 1932 :—

**RAILWAYS, STATE.—NET REVENUE AND PERCENTAGE THEREOF ON CAPITAL COST OF LINES OPEN.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>NET REVENUE.</b>							
	£	£	£	£	£	£	£
1928 .. ..	4,273,185	3,008,310	1,275,392	280,536	947,240	-19,142	9,765,521
1929 .. ..	5,437,566	3,630,175	1,365,846	-28,921	744,318	-59,797	11,089,187
1930 .. ..	3,664,269	2,690,258	1,356,118	-296,176	546,308	-28,040	7,932,737
1931 .. ..	3,106,095	2,508,424	1,401,501	-148,487	588,074	-48,662	7,406,945
1932 .. ..	3,268,153	3,272,814	1,565,305	615,946	799,104	-5,646	9,515,676

**PERCENTAGE OF NET REVENUE ON CAPITAL EXPENDITURE.**

	%	%	%	%	%	%	%
1928 .. ..	3.68	4.16	2.27	1.08	4.43	-0.29	3.27
1929 .. ..	4.44	4.97	2.34	-0.11	3.32	-0.92	3.58
1930 .. ..	2.94	3.63	2.31	-1.09	2.39	-0.43	2.53
1931 .. ..	(a) 2.40	3.38	(a) 2.38	-0.54	2.52	-0.74	(b) 2.27
1932 .. ..	(a) 2.37	4.40	(a) 4.62	2.26	3.37	-0.09	(b) 3.09

(a) Exclusive of Grafton-South Brisbane line.

(b) Includes Grafton-South Brisbane line.

These figures are also represented in the graphs which accompany this Chapter.

(ii) *Net Revenue, Averages.* Tables showing the gross earnings and the working expenses per average mile worked and per train-mile run have been given previously. The net earnings, *i.e.*, the excess of gross earnings over working expenses per average mile worked and per train-mile run are shown in the following table :—

**RAILWAYS, STATE.—NET REVENUE, AVERAGES.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>NET REVENUE PER AVERAGE MILE WORKED.</b>							
	£	£	£	£	£	£	£
1928 .. ..	733	645	201	111	239	-29	407
1929 .. ..	921	773	214	-11	186	-91	458
1930 .. ..	615	571	211	-117	132	-42	325
1931 .. ..	517	532	215	-59	143	-73	302
1932 .. ..	540	693	239	243	190	-9	385

**NET REVENUE PER TRAIN-MILE RUN.**

	d.	d.	d.	d.	d.	d.	d.
1928 .. ..	38.13	40.80	26.26	10.35	39.68	-3.24	33.53
1929 .. ..	46.76	48.46	27.56	-1.20	30.64	-10.21	37.88
1930 .. ..	32.92	36.54	27.45	-12.80	22.88	-4.47	27.58
1931 .. ..	29.09	37.76	30.90	-7.14	26.12	-9.33	27.73
1932 .. ..	30.34	51.12	34.26	30.08	37.65	-1.20	36.07

11. **Interest.** The amount of interest payable on expenditure from loans on the construction and equipment of the railways in each State, during the years ended 30th June, 1928 to 1932, was as follows :—

**RAILWAYS, STATE.—INTEREST ON RAILWAY LOAN EXPENDITURE.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
AMOUNT OF INTEREST PAYABLE.							
	£	£	£	£	£	£	£
1928 .. ..	5,882,452	3,321,727	2,827,223	1,271,686	920,569	284,076	14,507,733
1929 .. ..	6,150,000	3,473,575	2,902,710	1,366,807	923,017	283,554	15,099,663
1930 .. ..	6,420,643	3,508,657	2,953,211	1,399,053	950,797	284,379	15,516,740
1931 .. ..	6,790,082	3,596,758	3,018,355	1,426,741	968,066	285,881	16,205,274
1932 .. ..	6,519,217	3,641,109	3,589,643	1,217,338	989,173	263,900	14,328,560

(a) Interest charges on the Grafton—South Brisbane line for the year 1930–31 amounted to £215,971, of which New South Wales contributed £70,269 and Queensland £26,311, the remainder, £119,391, being borne by the Commonwealth. The total charges for 1931–32 were £213,027, of which New South Wales contributed £72,301, Queensland £32,546 and the Commonwealth £108,180. See B § 1, 4 ante.

Exchange on interest payments in London during the year 1931–32, New South Wales £1,313,541, Victoria £440,938 and South Australia £176,913, are not included in the amounts shown above for those States. With regard to the remaining States, the amounts of exchange, which are not available, are not charged against the Railways, and are therefore not included in the above figures. The interest payable on the cost of construction and equipment, exclusive of expenditure from consolidated revenue (£5,658,110) for that purpose, was at the rate of 4.74 per cent., in 1931–32.

The reduction of £28,000,000 in the Queensland Capital Account referred to on page 169 is reflected in the decrease in the annual interest payable by that State.

12. **Profit or Loss.**—The following table shows the actual profit or loss after deducting working expenses and interest and all other charges from the gross revenue, and the percentage of such profit or loss on the total capital cost of construction and equipment for the last five years :—

**RAILWAYS, STATE.—PROFIT OR LOSS.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES, INTEREST, AND OTHER CHARGES.							
	£	£	£	£	£	£	£
1928 .. ..	-1,609,267	-315,960	-1,551,831	-991,150	+26,671	-303,218	-4,744,755
1929 .. ..	-712,434	+156,600	-1,536,864	-1,395,728	-178,699	-343,351	-4,010,476
1930 .. ..	-2,756,374	-818,399	-1,597,093	-1,695,229	-404,489	-312,419	-7,584,003
1931 .. ..	a-3,683,987	-1,088,334	-1,616,854a	-1,575,228	-379,992	-334,543	a-8,798,329
1932 .. ..	a-3,251,064	-368,295	-24,338a	-601,392	-190,069	-269,546	a-4,812,884
PERCENTAGE OF PROFIT OR LOSS ON CAPITAL COST OF CONSTRUCTION AND EQUIPMENT.							
	%	%	%	%	%	%	%
1928 .. ..	-1.38	-0.44	-2.76	-3.81	+0.12	-4.68	-1.59
1929 .. ..	-0.58	+0.21	-2.64	-5.20	-0.80	-5.29	-1.30
1930 .. ..	-2.21	-1.10	-2.72	-6.22	-1.77	-4.78	-2.41
1931 .. ..	(b)-2.73	-1.46	(b)-2.64	-5.78	-1.63	-5.11	(c)-2.70
1932 .. ..	(b)-2.36	-0.49	(b)-0.07	-2.21	-0.80	-4.11	(c)-1.56

(a) See Note (a) paragraph 11 above.

(b) Exclusive of Grafton—South Brisbane line.

(c) Includes Grafton—South Brisbane line.

13. *Traffic.*—(i) *General.* Reference has already been made to the difference in the traffic conditions on many of the lines. These conditions differ not only in the several States, but also on different lines in the same States, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is confined to a fringe of country near the coast, more especially in the eastern and southern districts. A large proportion of the railway traffic between the chief centres of population is therefore carried over lines in the neighbourhood of the coast, and is thus, in some cases, open to seaborne competition. The long and bulky hauls of wheat, live stock and wool to the coast require a large equipment of rolling stock, but the requirement for back freight is very much less. In this respect, therefore, the Australian railways are at a disadvantage compared with those of countries where there is a more balanced traffic in both directions.

The following table gives particulars for the years 1928 to 1932 :—

### RAILWAYS, STATE.—TRAFFIC.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
NUMBER OF PASSENGER JOURNEYS.							
1928 ..	148,046,881	164,574,870	24,800,934	19,539,347	16,032,536	2,322,410	375,316,978
1929 ..	151,116,086	161,002,267	24,738,327	17,829,946	14,904,917	2,212,817	371,804,360
1930 ..	147,892,548	157,119,071	24,440,946	17,829,098	14,175,175	2,243,265	363,700,103
1931 ..	126,811,993	134,655,220	22,009,473	15,437,440	11,702,741	1,852,145	312,469,012
1932 ..	128,359,419	125,990,585	20,761,976	15,608,245	10,394,311	1,680,897	302,795,433

### PER 100 OF MEAN POPULATION.

1928 ..	6.171	9.453	2.754	3.399	4.088	1.102	6.035
1929 ..	6.178	9.146	2.697	3.081	3.674	1.041	5.882
1930 ..	5.972	8.839	2.621	3.075	3.408	1.043	5.685
1931 ..	5.075	7.518	2.319	2.652	2.786	849	4.837
1932 ..	5.056	6.976	2.138	2.643	2.460	758	4.623

### PER AVERAGE MILE OF LINE WORKED.

1928 ..	25,412	35,307	3,912	7,730	4,037	3,528	15,649
1929 ..	25,598	34,272	3,873	7,007	3,732	3,384	15,377
1930 ..	24,821	33,370	3,791	7,024	3,449	3,399	14,892
1931 ..	21,089	28,588	3,382	6,091	2,838	2,786	12,725
1932 ..	21,216	26,693	3,170	6,172	2,467	2,606	12,255

### TONNAGE OF GOODS AND LIVE STOCK CARRIED.

1928 ..	15,433,083	8,117,961	4,670,447	3,401,901	3,697,648	715,387	36,036,427
1929 ..	14,516,643	8,187,088	4,558,099	2,748,423	3,670,147	660,523	34,340,923
1930 ..	12,150,964	7,513,606	4,528,201	2,652,753	3,530,188	632,052	31,007,764
1931 ..	10,743,109	6,099,310	3,857,766	2,162,709	3,153,525	466,153	26,482,572
1932 ..	10,211,322	6,186,081	3,860,668	2,419,094	2,847,568	449,039	25,973,772

### PER 100 OF MEAN POPULATION.

1928 ..	643	466	519	592	943	339	579
1929 ..	593	465	497	475	905	311	543
1930 ..	491	423	486	457	849	294	485
1931 ..	430	341	406	372	751	214	410
1932 ..	402	342	398	410	674	202	396

RAILWAYS, STATE.—TRAFFIC—*continued.*

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
PER AVERAGE MILE OF LINE WORKED.							
1928 ..	2,649	1,741	737	1,346	931	1,087	1,500
1929 ..	2,459	1,743	714	1,080	919	1,010	1,423
1930 ..	2,039	1,596	702	1,045	859	958	1,270
1931 ..	1,787	1,295	593	853	765	701	1,079
1932 ..	1,688	1,311	589	956	676	696	1,051

(ii) *Metropolitan and Country Passenger Traffic and Revenue.* A further indication of the difference in passenger traffic conditions is obtained from a comparison of the volume of metropolitan and suburban and country traffic in each State. This is shown below for the year 1931-32 :—

## RAILWAYS, STATE.—METROPOLITAN AND SUBURBAN, AND COUNTRY PASSENGER TRAFFIC AND RECEIPTS, 1931-32.

Particulars.	Passenger Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	a 120,864,158	7,495,261	128,359,419	2,481,973	2,461,817	4,943,790
Victoria ..	b 120,848,507	5,142,078	125,990,585	2,131,983	1,382,121	3,514,104
Queensland..	16,097,969	4,664,007	20,761,976	258,306	1,061,218	1,319,524
S. Australia	c 14,509,509	1,098,736	15,608,245	205,489	288,444	493,933
W. Australia	9,137,011	1,257,300	10,394,311	132,071	357,365	489,436
Tasmania ..	(d)	(d)	1,680,897	(d)	(d)	107,587
Total ..	(e)	(e)	302,795,433	(e)	(e)	10,868,374

(a) Within 34 miles of Sydney and Newcastle, including the Richmond line.  
of Melbourne.

(c) Within 25 miles of Adelaide.

(d) Not available.

(b) Within 20 miles of Melbourne.  
(e) Incomplete.

(iii) *Electrification of Suburban and Country Railways.* Reference to the electrification of the Melbourne and Sydney suburban railways will be found in Year Book No. 22, p. 285.

(iv) *Goods Traffic.* (a) *Classification.* The differing conditions of the traffic in each State might also, to some extent, be analysed by an examination of the tonnage of various classes of commodities carried, and of the revenue derived therefrom. Comparative particulars regarding the quantities of some of the leading classes of commodities



carried are available for all the States, and the following table shows the number of tons of various representative commodities carried, with the percentage of each class on the total, for the financial year 1931-32 :—

**RAILWAYS, STATE.—CLASSIFICATION OF COMMODITIES CARRIED.**

State.	Coal, Coke, and Shale.	Other Minerals.	Grain and Flour.	Hay, Straw and Chaff.	Wool.	Live Stock.	All other Commodities.	Total.
<b>TONS CARRIED.</b>								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales	4,498,158	704,662	2,233,809	179,624	186,610	612,443	1,796,016	10,211,322
Victoria	218,013	238,267	1,673,296	188,444	85,684	593,769	3,278,608	6,186,081
Queensland	504,558	322,693	1,773,315 <sup>(a)</sup>	(b)	87,040	321,182	851,880	3,860,668
South Australia	120,400	420,196	1,004,752	14,616	27,248	101,808	727,074	2,419,094
Western Australia	197,779	177,016	1,310,178	48,712	23,763	85,676	1,004,444	2,847,568
Tasmania	171,130	(c)	52,560	25,660	4,028	21,660	174,001	449,039
All States	5,710,038	1,862,834	8,047,910	457,056	414,373	1,649,538	7,832,023	25,973,772

**PERCENTAGE OF TOTAL TONNAGE CARRIED.**

	%	%	%	%	%	%	%	%
New South Wales	44.05	6.90	21.87	1.76	1.83	6.00	17.59	100.00
Victoria	3.52	3.85	27.05	3.95	1.39	8.14	52.00	100.00
Queensland	13.07	8.36	445.93	(b)	2.25	8.32	22.07	100.00
South Australia	4.98	17.37	41.53	0.60	1.13	4.33	30.06	100.00
Western Australia	6.95	6.22	46.01	1.71	0.83	3.01	35.27	100.00
Tasmania	38.11	(c)	11.70	5.72	0.90	4.82	38.75	100.00
All States	21.98	7.17	30.99	1.76	1.60	6.35	30.15	100.00

(a) Agricultural produce.  
coal, coke, and shale.

(b) Included with "All other commodities."

(c) Included with

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1931-32 according to a classification which has been adopted by all States :—

**RAILWAYS, STATE.—GOODS, ETC., TRAFFIC—REVENUE, 1931-32.**

Class.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
General merchandise	4,533,059	2,899,897	2,495,818	905,384	1,003,713	163,268	12,001,139
Wheat ..	(a)	981,794	(a)	523,922	743,302	(a)	d 2,249,018
Wool ..	849,641	239,189	535,868	55,016	74,565	5,383	1,759,662
Live stock	1,250,462	550,461	518,187	165,871	126,708	18,607	2,630,296
Minerals—							
Coal, coke, and shale ..	1,027,316	72,462	235,657	38,397	110,067	(b) 35,137	1,519,036
Others ..	192,837	61,935	223,436	259,703	47,774	(c) 12,591	798,276
Total	7,853,315	4,805,738	4,008,966	1,948,293	2,106,129	234,986	20,957,427

(a) Included with General Merchandise.  
(d) Incomplete.

(b) Native coal.

(c) Minerals other than native coal.

In New South Wales and Victoria, electric motor coaches are used for the transfer of parcels from the central stations to suburban stations, and in Victoria to convey luggage and parcels between the two main terminal stations.

14. Passenger-Mileage and Ton-Mileage.—(i) *Passenger-Miles.* The subjoined table gives particulars of passenger-mileage in respect of all States for the years 1927–28 to 1931–32.

## RAILWAYS, STATE.—SUMMARY OF “PASSENGER-MILES.”

Year ended 30th June—	Passenger Train-Mileage.	Number of Passenger Journeys.	Total Passenger-Miles.	Amount Received from Passengers.	Average Number of Passengers carried per Train-Mile.	Average Mileage per Passenger Journey.	Average Earnings per Passenger-Mile.	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked.
	Miles. (ooo omitted.)	No. (ooo omitted.)	No. (ooo omitted.)	£	No.	Miles.	d.	d.	No.
<b>NEW SOUTH WALES.</b>									
1928	16,036	148,047	1,809,307	6,998,147	113	12.22	0.93	11.34	310,569
1929	16,738	151,116	1,820,701	7,238,329	108	12.05	0.95	11.50	308,409
1930	16,952	147,893	1,731,073	6,610,951	102	11.70	0.92	10.73	290,519
1931	16,496	126,812	1,414,061	5,172,359	85	11.15	0.88	9.79	235,161
1932	17,148	128,359	1,366,764	4,943,790	80	10.64	0.86	9.24	220,768
<b>VICTORIA.</b>									
1928	11,915	164,575	1,416,970	5,358,775	119	8.61	0.91	7.81	303,985
1929	12,104	161,002	1,420,570	5,222,224	117	8.82	0.88	7.78	302,392
1930	12,188	157,119	1,352,954	4,829,808	111	8.61	0.86	7.38	287,349
1931	11,066	134,655	1,134,376	3,890,604	103	8.42	0.82	6.93	240,830
1932	10,534	125,991	1,053,215	3,514,104	100	8.35	0.80	6.69	223,138
<b>QUEENSLAND.</b>									
1928	3,921	24,801	(a)	1,900,898	(a)	(a)	(a)	18.40	(a)
1929	4,143	24,738	(a)	1,905,285	(a)	(a)	(a)	18.48	(a)
1930	4,313	24,441	(a)	1,838,812	(a)	(a)	(a)	18.06	(a)
1931 <sup>b</sup>	4,411	21,955	(a)	1,510,412	(a)	(a)	(a)	16.51	(a)
1932 <sup>b</sup>	4,625	20,695	(a)	1,290,225	(a)	(a)	(a)	14.96	(a)
<b>SOUTH AUSTRALIA.</b>									
1928	3,729	19,539	242,308	927,520	65	12.40	0.92	11.39	95,861
1929	3,563	17,830	219,857	815,323	62	12.33	0.89	10.98	86,403
1930	3,342	17,829	208,634	628,474	62	11.70	0.72	8.46	82,193
1931	3,193	15,437	167,738	499,745	53	10.87	0.72	7.77	66,179
1932	3,140	15,608	166,407	493,933	53	10.66	0.71	7.59	65,792
<b>WESTERN AUSTRALIA.</b>									
1928	2,131	16,033	(a)	829,598	(a)	(a)	(a)	12.42	(a)
1929	2,169	14,905	(a)	774,225	(a)	(a)	(a)	12.47	(a)
1930	2,206	14,175	(a)	720,137	(a)	(a)	(a)	12.19	(a)
1931 <sup>c</sup>	2,062	11,703	(a)	551,347	(a)	(a)	(a)	11.31	(a)
1932 <sup>c</sup>	1,938	10,394	(a)	480,436	(a)	(a)	(a)	11.30	(a)
<b>TASMANIA.</b>									
1928	615	2,322	37,971	167,234	62	16.35	1.05	17.28	57,685
1929	627	2,213	35,751	149,792	57	16.15	1.05	16.25	54,674
1930	670	2,243	35,257	147,487	53	15.71	1.00	15.77	53,428
1931	(c) 590	1,852	28,646	117,339	49	15.46	0.98	15.20	43,083
1932	(c) 506	1,681	27,158	107,587	54	16.16	0.95	15.36	42,111

(a) Not available.

(b) Exclusive of Queensland portion of Grafton–South Brisbane (uniform gauge) line.

(c) Includes “Assistant” and “Light” Mileage.

(ii) *Ton-Miles.* Particulars regarding total "ton-miles" are given in the following table for each of the years 1927-28 to 1931-32 :—

## RAILWAYS, STATE.—SUMMARY OF "TON-MILES."

Year ended the 30th June—	Goods-Train-Mileage.	Total Tons Carried.	Total "Ton-miles."	Earnings.	Average Freight-paying Load Carried per "Train."	Average Haul per Ton.	Earnings per "Ton-mile."	Density of Traffic per Average Mile Worked.
	No. (,000 omitted.)	No. (,000 omitted.)	No. (,000 omitted.)	£	Tons.	Miles.	d.	Tons.
NEW SOUTH WALES.								
1928	10,861	15,223	1,550,375	10,228,586	158	101.84	1.56	266,408
1929	10,645	14,307	1,690,560	10,379,192	183	118.16	1.45	286,376
1930	9,762	11,861	1,498,723	9,353,867	177	126.35	1.48	251,778
1931	8,997	10,616	1,425,184	7,841,406	184	134.25	1.30	237,260
1932	8,700	10,054	1,407,451	7,853,315	186	139.99	1.33	233,030
VICTORIA.								
1928	5,780	8,118	737,856	5,763,701	164	90.89	1.87	158,304
1929	5,876	8,187	834,605	6,251,682	173	101.94	1.80	177,651
1930	5,483	7,514	737,623	5,599,182	166	98.17	1.82	156,674
1931	4,879	6,099	713,022	4,817,808	174	116.90	1.62	151,385
1932	4,830	6,186	769,228	4,805,733	181	124.34	1.49	162,972
QUEENSLAND.								
1928	7,734	4,670	552,442	4,824,885	671	120.67	2.09	89,872
1929	7,751	4,558	553,816	4,949,614	671	124.03	2.14	88,572
1930	7,546	4,528	554,171	4,780,114	673	125.20	2.06	88,628
1931b	6,406	3,838	495,912	4,148,845	677	133.20	2.00	79,149
1932b	6,257	3,835	510,699	3,968,227	683	139.02	1.83	82,034
SOUTH AUSTRALIA.								
1928	2,774	3,402	395,919	2,616,503	147	116.38	1.57	156,731
1929	2,202	2,748	337,639	2,358,579	156	122.91	1.66	132,694
1930	2,209	2,653	350,325	2,249,895	164	131.29	1.55	138,044
1931	1,799	2,163	285,639	1,787,747	165	132.07	1.50	112,711
1932	1,774	2,419	287,619	1,948,293	170	118.37	1.63	113,731
WESTERN AUSTRALIA.								
1928	3,723	3,698	357,966	2,619,816	111	96.81	1.76	90,145
1929	3,773	3,670	367,032	2,610,193	113	100.00	1.71	91,919
1930	3,654	3,530	361,935	2,523,302	115	102.53	1.67	88,083
1931	3,487	3,154	373,405	2,289,638	121	118.41	1.47	90,566
1932	3,266	2,848	347,492	2,106,129	119	122.03	1.45	82,461
TASMANIA.								
1928	3814	690	34,180	310,348	642	40.54	2.17	51,926
1929	3787	636	31,140	281,577	640	48.99	2.17	47,623
1930	3857	607	33,715	288,373	639	55.58	2.05	51,991
1931	3667	444	27,253	220,545	641	61.39	1.94	40,988
1932	3627	427	26,690	215,180	643	62.45	1.93	41,386

(a) Includes "Assistant" and "Light" mileage. (b) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line. (c) Approximate.

In New South Wales the tonnage carried is exclusive of some coal on which way leave charges only have been collected, the quantities being 209,806 tons (1928), 209,664 tons (1929), 289,667 tons (1930), 127,209 tons (1931) and 157,110 tons (1932). Particulars for Tasmania do not include live stock.

15. **Passenger Fares and Goods Rates.**—Fares and rates are changed from time to time to suit the varying necessities of the railways, and when drought conditions prevail special concessions are made in the rates for the carriage of fodder and water and for the transfer of stock to other areas.

An earlier issue of this work (No. 18, pp. 305-6) gives detailed information as at 30th June, 1924, in regard to the following rates :—(a) Ordinary Passenger Mileage rates ; (b) Highest and Lowest Class Freight rates ; (c) Rates for agricultural produce.

16. **Rolling Stock.**—Particulars of locomotives and rolling stock in use on State railways may be found on page 22 of *Transport and Communication Bulletin No. 23*.

17. **Employees.**—(i) *At 30th June.* The following table gives the number of railway employees in each year from 1928 to 1932 inclusive, classified according to (a) salaried staff, and (b) wages staff :—

## RAILWAYS, STATE.—EMPLOYEES.(a)

State.	At 30th June—									
	1928.		1929.		1930.		1931.		1932.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
New South Wales	6,052	38,053	5,995	37,535	5,754	34,243	5,947	34,517	6,016	36,320
Victoria ..	4,363	23,618	4,295	23,025	4,249	20,361	4,051	17,985	3,977	17,709
Queensland ..	3,478	16,146	3,403	15,467	3,219	14,542	3,030	12,970	2,997	12,630
South Australia ..	1,295	7,353	1,312	7,401	1,293	6,794	1,158	5,866	1,141	5,577
Western Australia ..	1,412	7,565	1,418	7,770	1,424	7,587	1,287	5,900	1,257	6,152
Tasmania ..	212	1,309	219	1,376	217	1,352	191	1,234	174	1,137
All States ..	16,812	94,104	16,642	92,574	16,156	84,879	15,664	78,192	15,562	79,525

(a) Exclusive of construction staff.

In the period under review the totals of salaried and wages staffs decreased from 110,916 in 1928 to 95,087 in 1932, a decline of 14.3 per cent.

(ii) *Average staff employed, 1931-32.* The number of employees at one point of time does not afford the best index of employment in railway work. It is considered that the following statement of the average number employed throughout the year indicates more accurately the labour requirements of the railways :—

## AVERAGE STAFF EMPLOYED, 1931-32.

State.	Operating Staff.		Construction Staff.		All Employees—Staff.	
	Salaried.	Wages.	Salaried.	Wages.	Salaried.	Wages.
New South Wales ..	5,926	34,403	90	1,917	6,016	36,320
Victoria ..	3,977	17,709	..	..	3,977	17,709
Queensland ..	2,985	12,598	12	32	2,997	12,630
South Australia ..	1,141	5,538	..	39	1,141	5,577
Western Australia ..	1,244	5,919	13	233	1,257	6,152
Tasmania ..	174	1,137	..	..	174	1,137
All States ..	15,447	77,304	115	2,221	15,562	79,525

In the States of Victoria and Tasmania, railway construction work is not under the control of the Railways Commissioners.

18. Accidents.—The following table gives particulars of the number of persons killed and injured through train accidents and the movement of rolling stock on the Government railways in each State for each of the years 1928 to 1932 inclusive :—

## RAILWAYS, STATE.—ACCIDENTS.

State.	In year ended 30th June—									
	1928.		1929.		1930.		1931.		1932.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	77	629	61	565	64	571	44	409	73	308
Victoria ..	60	238	46	281	57	197	57	150	56	227
Queensland ..	20	163	19	125	26	133	15	138	13	124
South Australia	23	255	20	156	9	196	13	98	7	104
Western Australia	16	351	15	354	18	330	13	195	23	266
Tasmania ..	1	18	2	71	6	84	2	42	4	16
All States ..	197	1,654	163	1,552	180	1,511	144	1,032	176	1,045

Particulars relating to the number of passengers, employees and other persons affected by railway accidents are published on page 25 of Transport and Communication Bulletin No. 23.

19. Consumption of Oil and Fuel.—The appended table shows the quantity and value of oil and fuel consumed by the various Government Railway Departments during the year 1931-32 :—

## GOVERNMENT RAILWAYS.—CONSUMPTION AND VALUE OF OIL AND FUEL, 1931-32.

Government Railways.	Oil.						Coal.		
	Lubricating.			Fuel.			Tons.	Value.	Average Cost per Ton.
	Gallons.	Value.	Average Cost per Gallon.	Gallons.	Value.	Average Cost per Gallon.			
	£	s. d.		£	s. d.	£	£ s. d.		
New South Wales <sup>d</sup>	410,536	40,148	1 11.47	1,101,080	39,860	0 8.69	1,263,045	997,505	0 15 9.54
Victoria ..	151,694	20,858	2 9.00	1,439,121	57,821	0 9.64	526,562	477,486	0 18 1.63
Queensland ..	151,252	18,022	2 4.60	134,001	7,738	1 1.86	349,083	301,120	0 17 3.02
South Australia	51,591	6,148	2 4.60	(b)	(b)	(b)	140,900	206,145	1 9 3.13
Western Australia	50,031	5,536	2 2.56	253,976	14,499	1 1.70	264,015	249,905	0 18 11.17
Tasmania ..	27,427	3,148	2 3.55	43,957	1,500	0 8.19	42,981	48,042	1 2 4.26
Total States ..	842,531	93,860	2 2.74	2,972,135	121,418	0 9.80	2,586,586	2,280,203	0 17 7.57
Federal ..	16,011	1,634	2 0.49	57,627	4,548	1 6.94	16,739	30,822	1 16 9.92
Total, Australia..	858,542	95,494	2 2.69	3,029,762	125,966	0 9.98	2,603,325	2,311,025	0 17 9.05

(a) Lubricating oil used on loco. cars and wagons only. (b) Not available. (c) Exclusive of South Australia. (d) Railways and Tramways. (e) Approximate.

The range in the average cost per ton of coal from 15s. 9d. in New South Wales to £1 17s. per ton for coal used on the Federal Railways is attributable to the comparatively low haulage expenses incurred in the coal-producing States. The average cost of coal during 1931-32 showed a decrease of 1s. 7.18d. on that for 1930-31.

### § 4. Private Railways.

1. **Total Mileage Open, 1931-32.**—The bulk of the private railways in Australia have been laid down for the purpose of hauling timber, firewood, sugar-cane, coal, or other minerals, and they are not generally used for the conveyance of passengers or for public traffic. In many cases the lines are practically unballasted and easily removable.

The railways referred to in this section include only lines open to the public for general passenger and goods traffic. Complete particulars of lines used for special purposes only for the year 1931-32 are not available.

2. **Lines Open for General Traffic.**—The following statement gives a summary of the operations of private railways open for general traffic for the year 1931-32 :—

#### RAILWAYS, PRIVATE.—SUMMARY, 1931-32.

State.	Companies from which returns were received.	Miles Open (Route).	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles.	Passenger Journeys.	Tonnage of Goods, etc.	Rolling Stock.			
									No. of Employees.	Locos.	Coaches.	Other Vehicles.
New South Wales ..	7	82.70	1,287,730	246,587	178,967	456,225	847,528	538,908	404	46	2	729
Victoria ..	2	24.94	92,904	9,632	5,780	20,488	13,532	29,586	16	5	4	35
Queensland	13	262.95	594,641	36,276	33,037	75,971	16,174	188,504	70	24	19	485
South Australia ..	1	50.51	(a)	(a)	(a)	24,640	210	353,239	9	8	1	196
Western Australia	1	277.00	2,232,578	157,239	78,517	240,135	28,615	127,574	232	23	23	495
Tasmania	4	141.56	912,035	70,145	57,289	112,725	37,759	62,078	166	22	18	303
All States(b)	28	839.66	5,119,897	519,879	353,590	930,184	943,818	1,299,889	897	128	67	2,243

(a) Not available.

(b) Incomplete.

The particulars given in the table are incomplete in respect of the States of New South Wales, Queensland, South Australia, and Tasmania. In New South Wales and Queensland several of these lines, although owned by private companies, are operated by the Government Railway Departments, and Government rolling stock is used thereon.

### C. TRAMWAYS.

1. **Systems in Operation.**—(i) *General.* Tramway systems are in operation in all the States, and in recent years considerable extension has been made in the use of electrical traction, the benefit of which is now enjoyed by a number of the larger towns.

In many parts of Australia private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present paragraph.

(ii) *Total Mileage Open and Classification of Lines.* The following tables show the total mileage of tramway lines open for general passenger traffic for the year 1931-32, also in Australia as a whole for the years 1927-28 to 1931-32, classified (a) according to the motive power utilized, and (b) according to gauge:—

**TRAMWAYS.—ROUTE MILEAGE OPEN, 1931-32.**

Nature of Motive Power, and Gauge.	N.S. Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total Australia.
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**ACCORDING TO MOTIVE POWER.**

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Electric .. ..	168.00	154.38	56.86	82.84	61.27	30.73	554.08
Steam .. ..	9.06	..	6.65	..	6.26	..	21.97
Cable .. ..	..	24.29	..	..	..	..	24.29
Horse .. ..	..	..	..	..	1.50	..	1.50
<b>Total .. ..</b>	<b>177.06</b>	<b>178.67</b>	<b>63.51</b>	<b>82.84</b>	<b>69.03</b>	<b>30.73</b>	<b>601.84</b>

**ACCORDING TO GAUGE.**

Gauge—							
5 ft. 3 in. ..	..	5.18	..	..	..	..	5.18
4 ft. 8½ in. ..	177.06	173.49	56.86	82.84	..	..	490.25
3 ft. 6 in. ..	..	..	6.65	..	69.03	30.73	106.41
<b>Total .. ..</b>	<b>177.06</b>	<b>178.67</b>	<b>63.51</b>	<b>82.84</b>	<b>69.03</b>	<b>30.73</b>	<b>601.84</b>

Of the total mileage of tramway lines, 379.84 are Government owned, 185.69 are municipal and 36.31 are private. Further details on this subject may be obtained from page 28 of Transport and Communication Bulletin No. 23.

**TRAMWAYS.—ROUTE MILEAGE OPEN, AUSTRALIA.**

Nature of Motive Power.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
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**ACCORDING TO MOTIVE POWER.**

	Miles.	Miles.	Miles.	Miles.	Miles.
Electric .. ..	555.33	557.99	571.85	574.52	554.08
Steam .. ..	39.18	40.19	41.62	29.37	21.97
Cable .. ..	30.60	30.60	26.44	24.29	24.29
Horse .. ..	2.51	1.50	1.50	1.50	1.50
<b>Total .. ..</b>	<b>627.08</b>	<b>630.28</b>	<b>641.41</b>	<b>629.68</b>	<b>601.84</b>

(iii) *Cost of Construction and Equipment.* The table hereunder shows the total cost of construction and equipment of all tramways to the 30th June, 1932, classified according to the nature of the motive power. Further details relating to controlling authorities are available on page 28 of Transport and Communication Bulletin No. 23.

## TRAMWAYS.—COST OF CONSTRUCTION AND EQUIPMENT, 1931-32.

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
ACCORDING TO MOTIVE POWER.							
Electric	£ 7,991,205	£ 7,343,985	£ 2,142,310	£ 4,043,913	£ 1,722,915	£ 628,794	£ 23,873,122
Steam ..	187,302	..	53,235	..	60,632	..	301,169
Cable ..	..	1,300,785	..	..	..	..	1,300,785
Horse ..	..	..	..	..	10,104	..	10,104
Total ..	8,178,507	8,644,770	2,195,545	4,043,913	1,793,651	628,794	25,485,180

2. *New South Wales.*—(i) *General.* With the exception of a steam tramway  $3\frac{1}{2}$  miles in length from Parramatta to Duck River, which is operated by Sydney Ferries Ltd., the tramways of New South Wales are the property of the Government, and are under the control of the Department of Road Transport and Tramways. In Sydney and suburbs the Government tramways are divided into six distinct systems, five of which are operated by electricity, and one, the Kogarah to Sans Souci line, by steam. The conversion of the Newcastle system from steam to electric traction has now been completed, the last of the steam lines having been closed in November, 1930. The gauge of all lines is 4 ft.  $8\frac{1}{2}$  in.

(ii) *Particulars of Working.*—*Electric and Steam Tramways.* The following table gives a summary of the operations of all tramways for the years 1926 to 1932 :—

## ELECTRIC AND STEAM TRAMWAYS.—NEW SOUTH WALES.—SUMMARY.

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment. (a)	Gross Revenue.	Working Expenses.	Net Earnings.	In-terest.	Per-centage of Working Expenses on Gross Revenue.	Per-centage of Net Earnings on Capital Cost.	Passen-gers carried.	Persons em-ployed.
	Miles.	£	£	£	£	£	%	%	No. ,000	No.
1928 ..	214.08	11,342,078	4,558,546	3,940,913	617,633	576,702	86.45	5.45	346,128	11,039
1929 ..	213.93	11,476,189	4,460,063	3,837,213	622,850	615,997	86.03	5.43	333,615	11,090
1930 ..	213.91	11,497,978	3,905,205	3,628,554	276,651	646,892	92.92	2.41	307,874	10,147
1931 ..	203.09	8,170,592	3,059,897	3,124,366	-64,469	475,571	102.11	-0.79	266,393	8,191
1932 ..	177.06	8,178,507	3,306,557	3,049,267	257,290	546,626	92.22	3.14	286,504	8,417

(a) Includes £47,455 paid from the Consolidated Revenue on which no interest is payable.

(b) Exclusive of the cost of power houses now charged to the Railway Department.

The cost of construction and equipment is exclusive of the amount of the Stores Advance Account.



3. **Victoria.**—(i) *General.* In Melbourne, electric and cable tramway systems with route mileages of 114.54 miles and 24.29 miles respectively are worked by the Melbourne and Metropolitan Tramways Board, while two electric tramways, (a) St. Kilda to Brighton 5.18 miles and (b) Sandringham to Black Rock 2.43 miles, belong to and are operated by the Railways Commissioners. The line from Black Rock to Beaumaris was closed for traffic in August, 1931. The State Electricity Commission operates 10.98 miles of electric tramways at Geelong, and there are also systems of electric tramways 21.25 miles in length at Ballarat and Bendigo constructed and worked by a private company.

A short account of the formation of the Melbourne Tramway and Omnibus Company and of the Tramways Board will be found in earlier issues of this work (see Year Books No. 7 page 652, No. 9 page 679 and No. 15 page 593).

With the exception of the St. Kilda-Brighton line which is of 5 ft. 3 in. gauge, all the tramways of the State are of 4 ft. 8½ in. gauge.

(ii) *Particulars of Working.*—*Electric and Cable Tramways.* The following table gives particulars for all tramways in Victoria during each of the years 1928 to 1932 inclusive :—

#### ELECTRIC AND CABLE TRAMWAYS.—VICTORIA.—SUMMARY.

Year ended 30th June—	Mileage Open for Traffic (Route)	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	In-terest.	Per-centage of Working Expenses on Gross Revenue.	Per-centage of Net Earnings on Capital Cost.	Passen-gers carried.	Persons em-ployed.
	Miles.	£	£	£	£	£	%	%	No., 000	No.
1928 ..	179.32	7,585,691	2,605,879	1,817,236	788,643	306,927	69.74	10.40	232,377	5,890
1929 ..	180.19	7,943,382	2,586,663	1,846,454	740,209	313,854	71.38	9.32	228,308	5,713
1930 ..	180.46	8,623,910	2,470,482	1,775,726	694,756	314,433	71.88	8.06	214,431	5,162
1931 ..	180.85	8,690,155	2,191,009	1,524,033	666,976	347,546	69.56	7.68	188,452	4,785
1932 ..	178.67	8,644,770	2,049,698	1,327,161	722,537	326,250	64.75	8.36	175,433	4,740

4. **Queensland.**—(i) *General.* The electric tramways in the city and suburbs of Brisbane were controlled by a private company, with head office in London, until the 31st December, 1922, on which date they were purchased by the Queensland Government which, under the provisions of the *Brisbane Tramway Trust Act 1922*, appointed a Trust to control and operate the system until 1st December, 1925, on which date the control passed to the Brisbane City Council. Under the provisions of the *Brisbane City Council Act 1925*, the Council took over the liabilities of the Tramway Trust to the extent of £2,000,000 which had been incurred in London, and assumed complete control of the system. The total length of the Brisbane tramways was 56.86 route miles at 31st December, 1932, the gauge of the line being 4 ft. 8½ in.

In addition to the electric tramways, a steam tramway operated by the City Council is in operation at Rockhampton. The length of line is 6.65 route miles and the gauge 3 ft. 6 in.

(ii) *Particulars of Working.—Electric and Steam Tramways.* The following table gives particulars of the working of all tramways in Queensland for each year from 1928 to 1932 :—

## ELECTRIC AND STEAM TRAMWAYS.—QUEENSLAND.—SUMMARY.

Year ended 31st December—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	In-terest.	Per-centage of Work-ing Expenses on Gross Revenue.	Per-centage of Net Earnings on Capital Cost.	Passen-gers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. ,000	No.
1928 ..	62.06	2,248,469	827,357	623,869	203,488	114,494	75.41	9.05	79,456	1,653
1929 ..	62.38	2,267,872	810,148	600,567	209,581	115,483	74.13	9.24	77,791	1,594
1930 ..	63.23	2,294,020	780,844	568,241	212,603	113,032	72.77	9.27	75,128	1,520
1931 ..	63.34	2,273,109	716,605	519,738	196,867	109,346	72.53	8.66	70,761	1,404
1932 ..	63.51	2,195,545	688,883	481,186	207,697	106,689	69.85	9.46	69,478	1,431

5. *South Australia.—(i) General.* The tramways in Adelaide and suburbs are controlled by a Municipal Tramways Trust created in 1907. Prior to this year, the system was run with horse-traction by several private companies. Electric traction was inaugurated in 1909, and at the 31st July, 1932, the Tramways Trust operated a total route mileage of 82.84 miles of 4-ft. 8½-in. gauge.

(ii) *Particulars of Working.—Electric Tramways.* The following table gives particulars of the working of electric tramways in Adelaide for each year from 1928 to 1932 :—

## ELECTRIC TRAMWAYS.—ADELAIDE.—SUMMARY.

Year ended 31st July—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	In-terest.	Per-centage of Work-ing Expenses on Gross Revenue.	Per-centage of Net Earnings on Capital Cost.	Passen-gers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. ,000	No.
1928..	74.17	3,176,738	695,649	496,194	199,455	210,676	71.33	6.28	68,546	1,781
1929..	75.79	3,527,710	677,513	501,362	176,151	231,737	74.00	4.99	66,578	1,982
1930..	82.83	3,834,302	756,560	521,839	234,721	258,697	68.98	6.12	59,853	1,736
1931..	82.84	a4,036,396	a 722,104	a 445,260	a 276,844	a 287,534	a 61.66	a 6.86	a 52,756	a 1,840
1932..	82.84	a4,043,913	a 659,575	a 383,400	a 276,175	a 264,597	a 58.13	a 6.83	a 48,467	a 1,777

(a) Includes motor omnibuses. Separate particulars are not available.

There are also various Government horse-tramways in country districts, worked in connexion with the railway system, which are used mainly for passenger service, though some are for special purposes.

6. *Western Australia.—(i) General.* The Perth electric tramways were opened for traffic by a private company on the 24th September, 1899, and the system was subsequently extended to many of the suburbs. Control was taken over by the Government on the 1st July, 1913, and the tramways are now worked in conjunction with the Government railways. The length of line open at 30th June, 1932, was 41.10 route miles. Electric tramways with a route mileage at 31st August, 1932, of 8.61 miles and controlled by the municipal authorities, are in operation in Fremantle. In

Kalgoorlie and Boulder a private company controls the electric tramways, of which, at the end of 1932, the length of line was 11.56 route miles. All the electric tramways of the State are of 3-ft. 6-in. gauge.

In addition to the electric tramways, there are several Government tramways, with a total length of 7.76 miles of 3-ft. 6-in. gauge. The lines are under control of the Department of Works and Labour, and the total mileage of 7.76 miles is made up of several short lengths worked by steam or horses in connexion with the jetties at certain ports and providing communication between the jetties and the goods sheds or warehouses.

(ii) *Particulars of Working.—All Tramways.* The following table gives a summary for all tramways in the State for the years 1928 to 1932 :—

**ELECTRIC, STEAM AND HORSE TRAMWAYS.—WESTERN AUSTRALIA.—  
SUMMARY.**

Year.	Mileage Open for Traffic (Route)	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	In-terest. (b)	Per-centage of Work-ing Ex-pen-ses on Gross Re-venue.	Per-centage of Net Earnings on Capital Cost.	Passen-gers carried.	Persons em-ployed
	Miles.	£	£	£	£	£	%	%	No. ,000	No.
1928 ..	69.69	1,739,579	423,474	341,569	81,905	53,668	80.66	4.71	41,048	912
1929 ..	67.76	1,753,499	427,224	354,960	72,264	54,651	83.09	4.12	43,206	822
1930 ..	69.02	1,783,798	429,067	365,087	63,980	55,857	85.09	3.59	43,358	882
1931 ..	69.03	1,793,341	379,240	326,790	52,450	57,432	86.17	2.92	38,292	794
1932 ..	69.03	1,793,651	359,080	288,098	70,982	55,480	80.23	3.96	36,133	781

(a) Electric tramways only. operated by a private company.

(b) Exclusive of Kalgoorlie and Boulder electric tramways

7. *Tasmania.*—(i) *General.* In Hobart there is a system of electric tramways consisting of 19.00 route miles of 3-ft. 6-in. gauge controlled by the Hobart Municipal Council. The Launceston City Council operates tramways in Launceston having a length of 11.73 miles of 3-ft. 6-in. gauge.

There are also several lines of privately-owned steam tramways, which have been included with private railways, as they do not come within the category of street tramways for the conveyance of passengers.

(ii) *Particulars of Working.—Electric Tramways.*—The following table gives a summary of the working of the two electric systems for the years 1928 to 1932 :—

**ELECTRIC TRAMWAYS.—TASMANIA.—SUMMARY.**

Year.	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	In-terest.	Per-centage of Work-ing Ex-pen-ses on Gross Re-venue.	Per-centage of Net Earnings on Capital Cost.	Passen-gers carried.	Persons em-ployed.
	Miles.	£	£	£	£	£	%	%	No. ,000	No.
1928 ..	28.76	538,323	182,769	132,813	49,956	36,872	72.67	8.95	17,206	377
1929 ..	30.23	567,841	171,664	138,808	32,856	32,549	80.86	5.79	17,334	387
1930 ..	30.53	581,395	172,187	141,801	30,386	35,614	82.35	5.23	17,356	392
1931 ..	30.53	612,632	159,136	127,854	31,282	37,308	80.34	5.11	16,360	388
1932 ..	30.73	628,794	154,812	115,096	39,716	41,485	74.34	6.32	15,493	353

8. Australia.—*All Tramways—Summary 1928 to 1932.* The following table gives a summary of the working of all tramway systems in Australia for the years 1928 to 1932 :—

## ALL TRAMWAYS—AUSTRALIA—SUMMARY.

Particulars.	1928.	1929.	1930.	1931.	1932.
Mileage open for traffic .. Miles	628.08	630.28	639.98	624.50	562.05
Cost of Construction and Equip- ment .. .. £	26,650,878	27,536,493	28,616,003	225,576,225	225,505,180
Cost per mile .. .. £	42,432	43,689	44,714	40,955	45,379
Gross Revenue .. .. £	9,293,674	9,133,275	8,514,345	7,227,991	7,218,005
Working Expenses .. .. £	7,352,594	7,279,364	7,001,248	6,068,041	5,644,208
Net Earnings .. .. £	1,941,080	1,853,911	1,513,097	1,159,950	1,574,397
Interest .. .. £	1,299,339	1,364,271	1,424,525	1,314,737	1,341,127
Percentage of Working Expenses on Gross Revenue .. .. %	79.11	79.70	82.23	83.95	78.19
Percentage of Net Earnings on Capital Cost .. .. %	7.28	6.73	5.29	4.54	6.17
Tram-miles run .. .000 miles	80,506	80,566	79,010	77,308	79,963
Gross revenue per tram mile .. d.	27.71	27.21	25.86	22.44	21.66
Working expenses per tram mile .. d.	21.92	21.69	21.27	18.84	16.94
Net earnings per tram mile .. d.	5.79	5.52	4.59	3.60	4.72
Passengers carried .. .000	784,761	766,832	718,000	633,014	631,508
Passengers carried per tram mile .. No.	9.75	9.52	9.09	8.19	7.90
Average revenue per passenger journey .. .. d.	2.84	2.86	2.85	2.74	2.74
Persons employed at end of year .. No.	21,652	21,588	19,839	17,402	17,479

(a) Exclusive of cost of power houses for New South Wales electric tramways which are now charged to Railways.

## D. AIRCRAFT.

1. *Historical.*—A short review of the progress of civil aviation in Australia up to the date of foundation of the Department of Civil Aviation was given in Official Year Book No. 16, pp. 334-5.

2. *Foundation of Civil Aviation Department.*—A brief account of the foundation and the objects of this Department will be found in Official Year Book No. 19, p. 299.

3. *Activities of Civil Aviation Department.*—(i) *Aerodromes and Landing Grounds.* Amongst the various activities have been the acquisition and preparation of civil aviation landing grounds, which have now been established over the following approved routes :— (a) Perth to Derby (1,467 miles); (b) Derby to Wyndham (600 miles); (c) Perth to Adelaide (1,453 miles); (d) Adelaide to Sydney (790 miles); (e) Sydney to Brisbane (550 miles); (f) Brisbane to Charleville (444 miles); (g) Charleville to Camooweal (825 miles); (h) Camooweal to Daly Waters (475 miles); (i) Daly Waters to Birdum Creek (50 miles); (j) Cloncurry to Normanton (215 miles); (k) Melbourne to Hay (233 miles); (l) Mildura to Broken Hill (189 miles); and (m) Melbourne to Charleville via Cootamundra (900 miles).

Preliminary surveys of various additional routes also have been made, and certain landing grounds in the Northern Territory are now in course of preparation.

Up to 30th June, 1933, 183 landing grounds had been acquired or leased by the Government and prepared for civil aviation purposes. There were also 115 public aerodrome licences in force.

(ii) *Aerial Services.* (a) *General.* Since 1920 the grant of financial assistance for the establishment and maintenance of regular air transport services is part of the Government's policy for the development of civil aviation in Australia.

At 30th June, 1933, three subsidized contractors were operating under contracts which provided that such space as is required on each trip must be reserved for mails, the letters for transmission being surcharged 3d. per  $\frac{1}{2}$  ounce. The total route mileage of these services is 5,529 miles.

The various subsidized regular air services over prepared routes have completed 10,053,416 passenger-miles, and carried 49,663 paying passengers over various stages. Over 163,000 lb. of letters have also been carried.

All pilots and mechanics employed on these services must join the Air Force Reserve when the Reserve is constituted.

(b) *Re-organization of Services.* An inter-departmental committee was appointed by the Government in 1932 to investigate the question of the development of air communications between Australia and the United Kingdom and within Australia. The Government has approved the recommendations of the Committee which are, briefly, as follows :—

- (1) That an air service should be established linking Australia and the United Kingdom :
- (2) That the Commonwealth Government should accept responsibility for providing the service between Singapore and Darwin :
- (3) That as from the inception of the overseas service there should be maintained air transport services over the following routes within Australia :—
  - (i) Darwin—Cootamundra through Western Queensland and Western New South Wales (2,267 miles) ;
  - (ii) Katherine—Perth via the Kimberleys and the North-west coast of Western Australia (2,300 miles) ;
  - (iii) Charleville—Brisbane (444 miles) ;
  - (iv) Cloncurry—Normanton (215 miles) ;
  - (v) Ord River—Wyndham (158 miles) ;
  - (vi) Melbourne—Hobart, via King Island and Launceston (475 miles).

It is expected that the services will be in operation early in 1934.

(c) *Aerial Mail Services at 30th June, 1933.* The following aerial mail services were in operation at 30th June, 1933 :—

(1) *Subsidized Services.* West Australian Airways Ltd.—Perth to Derby (W.A.), 1,467 miles ; Derby to Wyndham (W.A.), 600 miles, and Perth (W.A.) to Adelaide (S.A.), 1,453 miles. Queensland and Northern Territory Aerial Services Ltd.—Brisbane to Camooweal (Q.), 1,269 miles, Cloncurry to Normanton (Q.), 215 miles, and Daly Waters to Birdum (N.T.), 50 miles. Larkin Aircraft Supply Co. Ltd.—Camooweal (Q.) to Daly Waters (N.T.), 475 miles. All these services are operated once weekly in each direction over the routes mentioned. The Derby to Wyndham service is not operated in the “wet” season, which is usually December to March. The Daly Waters to Birdum service is operated during the “wet” season only, when surface transport between these two centres is impracticable except per medium of pack-horses.

(2) *Unsubsidized Services.* The following services were in operation at 30th June, 1933, without the assistance of Government subsidies :—(i) Rockhampton—Brisbane, 360 miles, weekly in each direction (Rockhampton Aerial Services Ltd.) ; (ii) Brisbane—Sydney, 500 miles, daily in each direction except Sundays (New England Airways Ltd.) ; (iii) Melbourne—Hobart, via Flinders Island, 356 miles, weekly in each direction (Hart Aircraft Services Pty. Ltd.) ; (iv) Melbourne—Hobart, via King Island, 396 miles, weekly in each direction (Matthews Aviation Pty. Ltd.) ; and (v) Launceston—Flinders Island, 120 miles, bi-weekly in each direction (Tasmanian Aerial Services Ltd.). Surcharged air mail is carried on services (ii) and (v) under arrangements with the Postmaster-General's Department.

(d) *Aerial Ambulance Service.* Following an agreement made between the Queensland and Northern Territory Aerial Services Ltd. and the Australian Inland Mission, an aerial ambulance service to provide medical service where required in Western and Northern Queensland and operating from a base at Cloncurry was inaugurated on the 17th May, 1928. The aircraft company agreed to provide the aircraft and pilot, and the mission authorities the doctor. The scheme has proved most successful and many instances are recorded of lives being saved by the services thus made available.

(e) *Reliability.* During 1932, over 564,693 miles were flown by the three subsidized companies operating regular air services, without a fatal accident. The total mileage flown by all civil aircraft in Australia and New Guinea during the same period was over 2,994,000 miles, and five fatal accidents occurred, an average of one fatal accident for every 598,800 miles flown.

4. **Air Survey.**—An air survey of approximately 260,000 square miles of Central Australia was carried out by Mr. Donald Mackay and party in May and June, 1933. Two aeroplanes were employed and the work extended over a period of eight weeks. The base of operations was in the vicinity of the Petermann Ranges and flights were made northerly and westerly from that locality. As a result of the survey, which was financed solely by Mr. Mackay, a considerable addition to the present scanty store of topographical data of Central Australia will result.

5. **Aircraft Construction.**—Aircraft have been manufactured in Australia from time to time and locally built aircraft are in use on certain subsidized routes. Development, however, has not yet reached a completely organized stage.

During the year, two locally constructed Genairco aircraft were shipped to Fiji for use in the operation of a seaplane service between the islands of that Territory.

The Aircraft Section at Cockatoo Island Dockyard is now constructing a twin-engined six-seater passenger aircraft (the "Codock") to the design of Wing-Commander L. J. Wackett, Aeronautical Superintendent of the Dockyard. It is understood that the "Codock" is being built to the order of Air Commodore Sir Charles Kingsford Smith.

6. **Training of Air Pilots.**—(i) *The Associated Aero Clubs.* The Associated Australian Aero Clubs provide facilities in the capital cities of all States for flying instruction and practice. At the end of June, 1933, over 700 pupils had passed through the various flying training organizations and had qualified for private "A" pilots' licences, whilst many graduates had completed advanced courses of training, gained their commercial "B" licences, and now own aircraft.

The Commonwealth Government renders these six clubs assistance by providing D.H. 60 "Moth" aeroplanes and spare engines, hangar accommodation, the free use of aerodromes, suitable club houses which are leased to the clubs, and bonuses for practice flying carried out and for each pupil trained to a standard that will enable him to obtain a private ("A") pilot's licence. In lieu of the bonus for practice flying the Sydney and Melbourne Clubs are paid a subsidy in respect of each member who qualifies for the renewal of his pilot's licence.

Aviation pageants are held from time to time by the various sections of the Australian Aero Club and are increasing in popularity.

(ii) *Other Aero Clubs.* During 1932 several D.H. 60 "Moth" aeroplanes were made available for loan to the following clubs operating in country districts:—Bendigo and Ballarat (V.); Central Queensland Aero Club, Rockhampton (Q.); and Lismore (N.S.W.). No assistance other than the loan of a machine is given to these organizations.

(iii) *Other Organizations.* Flying training is also carried out more or less intermittently by companies, clubs, or private owners at various centres throughout the Commonwealth. These do not receive any form of Government subsidy.

7. **Notable Flights.**—Since the end of the European war many notable long distance flights have been carried out by Australian pilots. Short accounts of those prior to the year under review are contained in previous issues of the Year Book. During the period 1st July, 1932, to 30th June, 1933, there were four solo flights from Europe to Australia, each of which was in the nature of a holiday flight, no attempt being made on any existing record. A flight of interest was the visit of the American Lockheed-Orion, high speed commercial monoplane, piloted by J. Dickson and carrying two passengers, which, in the course of a world business tour, flew from Sydney via Melbourne, Adelaide and Alice Springs to Wyndham in a few hours over two days, leaving from there for Sourabaya

and the East. Sir Charles Kingsford Smith, with a co-pilot, wireless operator, mechanic and passenger, flew from New South Wales to New Zealand in January, and returned in March, 1933. Mrs. M. R. Bonney flew from Australia to England, arriving at Croydon two months after leaving Australia. Unfavourable weather and a mishap to the machine which necessitated the despatch of spare parts from England, contributed to the delay in completion of the flight. Mrs. Bonney is the first Australian airwoman to fly from Australia to England.

In June, 1933, one of Imperial Airways Atlanta type machines (fitted with four engines) carried out a survey tour of the proposed England-Australia air mail route.

8. **Statistical Summary.**—The collection and compilation of aircraft statistics were undertaken by the Commonwealth Bureau of Census and Statistics on the 1st July, 1922. The subjoined table gives a summary of operations for the years ended 30th June, 1928 to 1932 :—

**CIVIL AIRCRAFT.—AUSTRALIA.—SUMMARY.**

Particulars.	Year ended 30th June—					
	1928.	1929.	1930.	1931.	1932.	
Registered Aircraft Owners						
(a) .. .. No.	37	72	122	129	115	
Registered Aircraft (a) No.	90	175	220	225	189	
Licensed Pilots—(a)						
Private .. .. No.	127	209	344	407	363	
Commercial .. No.	76	122	181	209	183	
Licensed Ground Engineers						
(a) .. .. . No.	163	198	257	293	289	
Aerodromes—(a)						
Government .. No.	46	56	58	57	58	
Public .. .. . No.	13	19	39	66	94	
Government Emergency						
Grounds .. . No.	94	108	114	121	124	
Flights carried out	No.	56,216	92,000	128,916	113,340	96,192
Hours flown .. . No.	15,783	27,268	42,963	44,507	31,959	
Approx. Mileage .. Miles	1,153,572	1,992,070	3,234,307	3,596,930	2,527,700	
Passengers carried—						
Paying .. .. . No.	36,397	56,363	91,415	80,651	56,883	
Non-paying .. . No.	5,629	10,037	12,801	13,699	13,771	
<b>Total .. .. . No.</b>	<b>42,026</b>	<b>66,400</b>	<b>104,216</b>	<b>94,350</b>	<b>70,654</b>	
Goods, weight carried	lb.	116,373	160,424	196,795	204,445	221,552
Mails, letters carried	No.	301,677	316,338	383,942	(b) 48,593	(b) 29,494
Accidents—						
Persons killed	No.	2	7	18	29	7
Persons injured	No.	5	10	20	20	17

(a) At 30th June.

(b) Weight in lb. all contractors.

In earlier issues of the Year Book, particulars of flying carried out in the various States have been shown, but, owing to the extension of interstate flying both by the subsidized companies and private pilots, it has been found impracticable to obtain complete details for the several States separately. The figures shown in the above table are therefore for the Commonwealth as a whole.

9. **New Guinea Activities.**—The discovery of gold in New Guinea resulted in considerable aviation activity in the vicinity of the gold-fields, which, by ground route, are situated about 70 miles inland from Salamaua, on the north-east coast of the mainland of New Guinea. The value of aircraft as a means of transporting food and stores to the field and of bringing the gold to the seaboard is shown by the fact that, whereas aircraft cover the distance in approximately one hour, the nature of the intervening country is such that a journey by other means occupies more than a week. Several air transport companies are operating successfully without any direct assistance in the form of Government subsidies. The principal company (Guinea Airways Ltd.) is now operating three specially constructed freight machines for the transportation of several thousand tons of hydro-electric power plant and dredging machinery to the Bulolo fields. This work is being successfully accomplished, and constitutes one of the most notable feats of transport in the history of aviation. Mails are carried by Guinea Airways Ltd., under arrangement with the Postmaster-General's Department, from Port Moresby to Wau and Salamaua. The air mail fee is 2d. per ounce in addition to the ordinary postage plus 3d. per half-ounce (air mail surcharge) if an Australian air service is also used. The subjoined table gives a summary of operations for the years ended 30th June, 1928 to 1932.

**CIVIL AIRCRAFT.—TERRITORY OF NEW GUINEA.—SUMMARY.**

Particulars.	Year ended 30th June—				
	1928.	1929.	1930.	1931.	1932.
Registered Aircraft Owners					
(a) .. .. No.	5	7	7	5	6
Registered Aircraft (a) No.	12	15	13	15	15
Licensed Pilots—(a)					
Private .. No.	..	..	1	4	2
Commercial .. No.	9	10	11	13	16
Licensed Ground Engineers					
(a) .. .. No.	8	10	11	18	31
Aerodromes—(a)					
Government .. No.	2	2	2	2	2
Emergency Landing					
Grounds .. No.	4	4	4	3	3
Flights carried out .. No.	821	1,532	2,882	2,672	4,664
Hours flown .. No.	1,534	2,626	3,619	3,969	5,160
Approximate mileage Miles	107,208	187,705	272,976	325,807	424,232
Passengers carried—					
Paying .. No.	814	1,293	2,490	2,992	3,450
Non-paying .. No.	94	65	649	87	31
Total .. No.	908	1,358	3,139	3,079	3,481
Goods, weight carried lb.	518,831	1,385,510	3,062,430	3,107,616	9,778,072
Mails, weight carried lb.	6,171	13,876	23,257	24,604	23,394
Accidents—					
Persons killed .. No.	..	..	..	1	..
Persons injured .. No.	..	..	..	1	..

(a) At 30th June.

**E. MOTOR VEHICLES.**

1. **The Motor Car and Motor Industry.**—(i) *Evolution of the Motor Car.* In the issue of the Year Book for 1927 (No. 20, p. 319) a short history of the evolution of the motor car is given.



(ii) *Motor Industry.* Although motor cars are not entirely manufactured in Australia, the capital invested in assembling and body building plants is considerable. The importance of the industry is shown by the figures relating to local manufacture of motor bodies and imports of motor cars and fuel which are given in the following table for the years 1927-28 to 1931-32 :—

**MOTOR BODIES BUILT, AND BODIES, CHASSIS AND FUELS IMPORTED—  
AUSTRALIA.**

Particulars.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Motor bodies built in Australia ..	No.	58,955	72,193	46,409	10,417	6,322
	Value £	3,436,674	4,357,841	3,118,987	864,209	450,510
Motor bodies imported ..	No.	9,583	14,546	6,556	137	61
	Value £	1,115,303	1,471,878	697,862	14,007	7,360
Chassis imported ..	No.	67,875	99,500	61,981	9,367	4,146
	Value £	6,758,255	8,830,362	5,807,024	721,893	355,415
Fuels imported—						
Crude petroleum ..	Million gallons	74	105	122	93	49
	Value £	791,766	858,678	1,118,332	823,575	448,651
Petroleum spirit, etc. ..	Million gallons	178	200	240	171	156
	Value £	6,087,217	6,816,287	7,429,485	4,054,265	2,622,414

The value of the tyres both locally produced and imported, for which figures are not, however, available, must also be taken into consideration, particularly as the prevailing practice is for distributors to retail cars on a five-tyre basis. Spares, batteries, accessories, etc., are additional items for which there is a wide market in Australia.

At the 30th June, 1932, the number of motor cars per 1,000 of population was 63.19.

2. **Registration.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders thereof are not uniform throughout Australia. Methods of registration, licence fees payable, etc., in each State were referred to in Official Year Book No. 16, pp. 337-340, and later issues up to No. 25.

3. **Public Vehicles.**—In all the capital cities of the States and in many of the most important provincial centres taxi-cabs and other vehicles ply for hire under licence granted either by the Commissioner of Police or the Local Government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. **Motor Omnibuses.**—Motor omnibus traffic, both in urban and provincial centres, has assumed considerable proportions during recent years, and prior to the constitution of Boards empowered to allocate routes over which omnibuses may operate, had a very marked effect on railway and tramway services. By regulating the licensing of motor omnibuses, the economic waste arising from duplication of routes and services parallel with or contiguous to existing railway and tramway systems is avoided. The general principle governing the allocation of routes is that omnibus services should act as feeders to existing transport utilities. Revenue from licence fees is devoted principally to the maintenance or construction of roadways to enable them to withstand the wear and tear caused by the heavy traffic. In some States the various railway and tramway systems conduct adjunct motor services to their main services. Such services are conducted in New South Wales by the Department of Road Transport and Tramways, in Victoria by the Victorian Railways Commissioners, in South Australia by the South Australian Railways Commissioners and by the Municipal Tramways Trust, Adelaide, and in Tasmania by the Municipality of Hobart. In most instances the omnibus service has been provided to meet the competition of private enterprise and to endeavour to protect the existing transport utilities provided by public bodies.

5. Motor Vehicles Registered, etc.—(i) Year 1931–32. Particulars of the registration of motor vehicles, etc., for the year 1931–32 are contained in the subjoined table :—

MOTOR VEHICLES.—SUMMARY, 1931–32.

States and Territories.	Motor Vehicles Registered.					Drivers' and Riders' Licences Issued.	Revenue derived from—		
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.	Per 1,000 of Population.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Total.
	No.	No.	No.	No.	No.		£	£	£
New South Wales	143,970	22,741	40,050	206,761	81.72	308,087	1,396,419	153,749	1,550,168
Victoria ..	117,160	22,568	28,224	167,952	92.99	226,712	1,041,344	56,691	1,098,035
Queensland ..	678,992	8,034	41,934	88,960	91.62	60,930	470,279	24,462	494,741
South Australia ..	39,023	7,860	10,909	57,792	98.62	81,300	459,395	40,309	499,704
Western Australia	28,316	6,700	12,386	47,402	112.33	56,171	259,705	19,111	278,816
Tasmania	11,327	3,661	2,222	17,210	77.87	19,426	83,834	9,713	93,547
Northern Territory	233	39	307	579	115.80	589	208	284	492
Federal Capital Territory	949	93	222	1,264	140.45	1,624	6,523	856	7,379
Australia ..	419,970	71,696	96,254	587,920	89.76	754,839	3,717,707	305,175	4,022,882

(a) Solid tyred vehicles. (b) Pneumatic tyred vehicles. (c) Gross Revenue.

(ii) *Quinquennium* 1928–1932. The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1927–28 to 1931–32 :—

MOTOR VEHICLES.—REGISTRATIONS, ETC., AUSTRALIA.

Year.	Motor Vehicles Registered.					Drivers' and Riders' Licences Issued.	Revenue derived from—		
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.	Per 1,000 of Population.		Vehicle Registration and Motor Tax.	Drivers' and Riders', etc., Licences.	Total.
							£	£	£
1927–28	419,131	84,017	(a)62,006	565,154	89.9	681,237	3,364,861	249,964	3,614,825
1928–29	474,359	88,049	(a)71,851	634,259	99.5	767,328	3,877,734	289,300	4,167,034
1929–30	466,930	84,897	104,487	656,314	101.9	823,452	4,194,970	329,988	4,524,898
1930–31	429,206	76,966	97,933	604,105	92.9	805,626	3,747,726	324,907	4,072,633
1931–32	419,970	71,696	96,254	587,920	89.8	754,839	3,717,707	305,175	4,022,882

(a) Incomplete, partly included with Motor Cars.

(iii) *Relation to Population.* The table hereunder gives the number of vehicles (exclusive of motor cycles) registered per 1,000 of population in each State for each of the years 1921 and 1928 to 1932 :—

MOTOR VEHICLES (EXCLUSIVE OF MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Federal Capital Territory.	Australia.
31st Dec., 1921	15	16	8	24	12	13	(a)	(a)	15
30th June, 1928	74	72	74	110	81	54	86	143	77
„ 1929	84	81	82	119	90	62	94	149	86
„ 1930	87	87	88	100	101	68	106	154	89
„ 1931	79	80	86	82	92	65	110	155	81
„ 1932	73	81	83	85	96	61	119	134	79

(a) Not available.

(iv) *Revenue per Motor Vehicle.* The following table gives the approximate average revenue per vehicle (exclusive of motor cycles) received in respect of registration and motor tax in the several States for each year from 1927-28 to 1931-32. In some States the revenue from motor tax on cycles is not separately recorded. In these cases the flat rate provided for cycles in the registration acts has been applied, and the average amounts shown must therefore be regarded as approximate only.

**AVERAGE REVENUE PER VEHICLE FROM REGISTRATION FEES AND MOTOR TAX (EXCLUSIVE OF MOTOR CYCLES).**

State, etc.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales .. ..	7 3 5	7 4 5	7 5 8	7 2 6	7 8 8
Victoria .. ..	6 16 6	6 19 2	7 0 10	7 0 2	6 19 2
Queensland .. ..	5 7 2	5 14 5	5 13 8	5 12 3	5 13 3
South Australia .. ..	7 10 5	7 6 10	9 7 11	8 5 9	8 16 7
Western Australia .. ..	6 1 9	6 10 0	6 16 1	6 15 8	6 3 11
Tasmania .. ..	5 1 11	5 0 11	5 1 6	5 11 1	5 15 0
Northern Territory .. ..	0 5 7	0 7 5	0 3 6	1 0 0	0 7 6
Federal Capital Territory ..	6 7 1	6 0 11	6 2 2	4 19 9	5 9 2
Australia .. ..	6 14 10	6 17 0	7 2 0	6 17 8	7 0 1

6. **Comparative Motor Vehicle Statistics, 1932.**—The result of the 1933 World Motor Census, conducted by the "American Automobile" magazine, from which the following particulars have been extracted, shows that there were almost 33,400,000 motor cars, trucks, and buses registered in various countries of the world at 1st January, 1933.

**COMPARATIVE MOTOR VEHICLE STATISTICS, 1st JANUARY, 1933.**

Country.	Approximate Population in Millions.	Motor Cars, Trucks, and Buses.	Motor Cycles.
Australia .. ..	7	527,493	65,000
Argentina .. ..	11	329,400	..
Belgium .. ..	8	150,000	45,000
Brazil .. ..	40	163,200	..
Canada .. ..	10	1,103,089	9,265
Cuba .. ..	4	27,500	..
Denmark .. ..	4	126,321	25,000
France .. ..	41	1,710,955	488,147
Germany .. ..	63	659,532	819,178
Great Britain .. ..	44	1,493,474	434,399
India .. ..	319	108,355	15,000
Irish Free State .. ..	3	49,223	5,668
Italy .. ..	41	301,533	98,471
Japanese Empire .. ..	66	104,800	25,000
Mexico .. ..	16	88,930	852
Netherlands .. ..	8	136,100	33,800
Netherlands East Indies .. ..	53	71,754	7,891
New Zealand .. ..	2	190,267	32,953
Union of South Africa .. ..	7	156,643	30,436
Spain .. ..	23	172,000	14,800
Sweden .. ..	6	151,500	55,000
Switzerland .. ..	4	90,100	47,300
United States of America .. ..	123	24,378,182	..

The foregoing figures are in some cases approximations based on estimates furnished by Trade Commissioners or representative motor trade organizations in the several countries, and in other cases are incomplete, especially in relation to motor cycles. The figures for Australia are estimated at 31st December, 1932, and differ from those stated in para. 5, which are actual registrations at 30th June, 1932.

As regards numbers of motor cars, Australia ranks sixth among the countries of the world, having been displaced by Germany from fifth position during 1928.

**POSTS, TELEGRAPHS AND TELEPHONES.**

**§ 1. General.**

1. **The Commonwealth Postal Department.**—In previous issues of the Year Book some account was given of the procedure in connexion with the transfer to the Federal Government of the postal, telegraphic, and telephonic facilities of the separate States. (See Year Book No. 15, p. 601.)

Under the provisions of the Commonwealth Post and Telegraph Act, 1901, the Commonwealth Postal Department was placed under the control of a Postmaster-General, being a responsible Minister with Cabinet rank, and a Secretary having chief control of the Department under the Postmaster-General, whilst a principal officer in each State was provided for under the style of Deputy Postmaster-General.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The subjoined statement shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices) in each State and in Australia at the 30th June, 1932. In order to judge clearly the relative postal facilities provided in each State, the area of country to each office, as well as the number of inhabitants per office, should be taken into account. The returns given for South Australia in this and all succeeding tables include those for the Northern Territory, while the returns for the Federal Capital Territory are included in those for New South Wales.

**POSTAL FACILITIES.—RELATION TO AREA AND POPULATION,  
AT 30th JUNE, 1932.**

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
Number of post offices (a) ..	2,428	2,548	1,194	763	560	511	8,004
Number of square miles of territory to each office in State ..	128	34	562	1,186	1,743	51	372
Number of inhabitants to each office ..	1,046	709	813	774	754	434	818
Number of inhabitants per 100 square miles ..	818	2,055	145	65	43	841	220

(a) Includes " Official," " Semi-Official," and " Non-Official " Offices.

The foregoing table does not include " telephone " offices at which telegraph and telephone business only is transacted.

(ii) *Number of Offices.* The following table shows the number of post offices in each State from 1901 to 1931-32 :—

**POST OFFICES—NUMBER.**

State.	At 31st December—				At 30th June—					
	1901.(b)		1912.		1922.		1931.		1932.	
	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)
New South Wales	438	1,770	508	2,051	459	2,129	439	2,103	438	1,990
Victoria ..	181	2,076	293	2,281	270	2,306	279	2,280	278	2,270
Queensland ..	137	1,165	214	1,149	211	1,030	199	1,000	199	995
South Australia ..	180	523	162	601	139	666	146	620	146	617
Western Australia	181	34	160	360	131	537	124	432	124	436
Tasmania ..	57	315	57	389	47	456	43	472	43	468
<b>Australia ..</b>	<b>1,174</b>	<b>5,883</b>	<b>1,394</b>	<b>6,831</b>	<b>1,257</b>	<b>7,124</b>	<b>1,230</b>	<b>6,907</b>	<b>1,228</b>	<b>6,776</b>

(a) Includes offices previously designated as " Allowance " and " Receiving " Offices (b) Figures for 1902 are not available.

(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States at specified dates is given in the appended table :—

POSTAL EMPLOYEES AND MAIL CONTRACTORS.

State.	At 31st December—				At 30th June—					
	1902.		1912.		1922.		1931.		1932.	
	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.
Central Office ..	(a)	..	(a)	..	87	..	174	..	175	..
New South Wales ..	5,724	973	12,614	1,798	12,451	2,087	12,336	1,884	12,357	2,010
Victoria ..	3,955	880	7,845	1,060	8,553	1,095	9,574	1,129	9,490	1,103
Queensland ..	2,627	(b)	3,942	768	4,792	766	4,865	908	4,818	832
South Australia ..	1,974	(b)	2,173	364	2,895	441	3,340	359	3,252	242
Western Australia ..	1,286	136	2,246	251	2,200	338	2,548	329	2,564	309
Tasmania ..	(c)860	(b)	1,094	217	1,229	236	1,354	257	1,398	238
Australia ..	16,426	1,989	29,914	4,458	32,207	4,963	34,191	4,860	34,054	4,734

(a) Included in Victorian Staff. (b) Included in "employees." Separate particulars are not available. (c) Estimated.

3. *Gross Revenue, Postmaster-General's Department.—Branches.* The gross revenue collected in respect of each branch of the Department during each of the past five years is shown in the table hereunder :—

GROSS REVENUE, POSTMASTER-GENERAL'S DEPARTMENT.—BRANCHES.

Branch and Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>Postal Branch—</b>	£	£	£	£	£	£	£
1927-8 ..	2,340,390	1,628,140	814,355	468,877	380,661	170,459	5,802,882
1928-9 ..	2,380,622	1,656,326	827,737	461,723	387,675	170,321	5,884,404
1929-30 ..	2,392,882	1,842,658	849,828	454,731	419,644	172,399	6,131,542
1930-31 ..	2,355,336	1,642,917	875,705	440,665	394,620	176,915	5,886,258
1931-32 ..	2,305,357	1,583,136	841,602	435,526	381,113	162,695	5,709,629
<b>Telegraph Branch (a)—</b>							
1927-8 ..	527,405	344,525	231,203	185,318	130,217	48,541	1,467,209
1928-9 ..	532,292	334,168	237,042	182,017	137,360	46,554	1,469,433
1929-30 ..	556,561	396,383	240,612	177,115	138,964	47,224	1,556,859
1930-31 ..	459,170	325,045	208,556	158,023	115,124	42,672	1,308,590
1931-32 ..	436,523	307,740	207,108	153,191	109,237	40,358	1,254,157
<b>Telephone Branch—</b>							
1927-8 ..	1,932,584	1,412,763	707,484	561,279	288,153	131,788	5,034,051
1928-9 ..	2,106,433	1,529,034	762,998	599,035	320,603	140,856	5,459,559
1929-30 ..	2,305,453	1,633,790	818,170	607,730	350,385	147,758	5,862,686
1930-31 ..	2,199,466	1,598,415	814,794	565,982	326,252	139,447	5,644,356
1931-32 ..	2,069,555	1,555,437	792,607	529,790	297,713	134,263	5,399,365
<b>All Branches—</b>							
1927-8 ..	4,800,379	3,385,428	1,753,042	1,215,474	799,031	350,788	12,304,142
1928-9 ..	5,019,347	3,520,128	1,827,777	1,242,775	845,638	357,731	12,813,396
1929-30 ..	5,254,896	3,872,831	1,908,610	1,238,376	908,993	367,381	13,551,087
1930-31 ..	5,013,972	3,566,377	1,899,055	1,164,670	835,996	359,034	12,839,104
1931-32 ..	4,831,635	3,446,313	1,841,317	1,118,507	788,063	337,316	12,363,151
<b>Total Revenue per head of mean population—</b>							
1927-8 ..	1.99	1.94	1.95	2.10	2.04	1.66	1.97
1928-9 ..	2.05	2.00	1.99	2.13	2.08	1.68	2.02
1929-30 ..	2.11	2.18	2.05	2.12	2.19	1.71	2.11
1930-31 ..	2.00	1.99	2.00	1.99	1.99	1.65	1.98
1931-32 ..	1.90	1.91	1.89	1.89	1.87	1.52	1.89

(a) Includes radio receipts.

As compared with the corresponding figures for the previous year, a decrease of 3.7 per cent. is shown, the decreases in the several branches being as follows:—Postal 2.9 per cent., Telegraph 4.2 per cent., and Telephone 4.4 per cent.

4. **Expenditure, Postmaster-General's Department.**—(i) *Distribution.* The following table shows, as far as possible, the distribution of expenditure on various items in each State during the year ended 30th June, 1932. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc., are included therein.

**EXPENDITURE, POSTMASTER-GENERAL'S DEPT.—DISTRIBUTION, 1931-32.**

Particulars.	Central Office.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£	£
Salaries and contingencies—								
Salaries .. .. .	65,874	1,992,153	1,415,316	728,570	536,717	366,380	182,649	5,287,659
Conveyance of mails .. .. .	..	441,522	263,612	213,003	75,282	75,779	38,532	1,107,730
Contingencies .. .. .	3,763	493,334	381,512	182,539	135,171	93,903	66,040	1,356,262
Ocean mails .. .. .	110,000	..	..	..	..	..	..	110,000
Miscellaneous .. .. .	919	27,901	20,289	7,296	8,259	4,569	6,313	75,546
Pensions and retiring allowances .. .. .	..	43,563	39,845	..	..	20,422	..	103,830
Rent, repairs, maintenance .. .. .	75	20,353	14,152	14,214	6,333	5,148	1,196	61,471
Proportion of Audit Office expenses .. .. .	..	3,756	2,677	1,432	876	627	332	9,700
New works—								
Telegraph and telephone .. .. .	26	188,951	108,943	53,796	37,099	27,443	15,806	(c) 432,064
New buildings, etc. .. .. .	..	3,863	113	307	4,999	1,027	146	(d) 10,455
Interest on transferred properties .. .. .	..	114,328	61,362	45,575	37,523	21,869	9,924	290,581
Other .. .. .	3,351,009	..	..	..	..	..	..	3,351,009
	(a)							
<b>Total .. .. .</b>	<b>3,531,666</b>	<b>3,329,724</b>	<b>2,307,821</b>	<b>1,246,732</b>	<b>842,259</b>	<b>617,167</b>	<b>320,938</b>	<b>12,196,307</b>
	(b)							

(a) Particulars of apportionment to each State not available. (b) Including expenditure not apportioned to States. (c) Excluding expenditure under the *Appropriation (Unemployment Relief Works) Act 1931* (£48,790). (d) Including expenditure under the aforementioned Act (£51,513).

(ii) *Total, 1928 to 1932.* The next table gives the actual payments made, as shown by records kept for Treasury purposes in respect of the Postal Department for each of the years ended 30th June, 1928 to 1932 inclusive.

**EXPENDITURE, POSTMASTER-GENERAL'S DEPARTMENT, 1928 TO 1932.**

Expenditure.	Year ended 30th June—				
	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
<b>Total .. .. .</b>	<b>16,098,777</b>	<b>15,693,070</b>	<b>15,797,072</b>	<b>14,282,984</b>	<b>12,196,307</b>

The total expenditure for 1931-32 decreased by 24.2 per cent. compared with the amount for 1927-28.

5. **Profit or Loss, Postmaster-General's Department.**—(i) *States 1931-32.* The foregoing statements of gross revenue and expenditure which represent actual collections and payments made and include capital and interest payments, cannot be taken to represent the actual results of the working of the Department for the year. The net

results for each branch in the several States after providing for working expenses, depreciation, and interest charges during the year, were as follow :—

**PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPARTMENT, 1931-32.**

Branch.	Profit or Loss.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
Postal ..	{ Profit	£ 476,450	£ 421,783	£ 211,794	£ 90,980	£ 71,532	£ ..	£ 1,267,534
	{ Loss	..	..	..	..	..	..	..
Telegraph (a)	{ Profit	..	20,082	..	..	..	5,005	..
	{ Loss	59,422	..	37,290	24,053	39,611	12,141	152,435
Telephone ..	{ Profit	..	..	..	..	..	..	..
	{ Loss	44,968	51,687	3,617	133,862	75,163	69,793	379,090
All Branches	{ Profit	372,060	390,178	170,887	..	..	..	736,009
	{ Loss	..	..	..	66,935	43,242	86,939	..

(a) Including Wireless Branch.

After providing for depreciation, pensions and retiring allowances and interest on capital, the year 1931-32 closed with a surplus of £736,009. For the preceding year a deficit of £67,004 was shown.

(ii) *Branches, 1928 to 1932.* The following statement gives particulars of the operating results of each branch for the period 1928 to 1932 :—

**PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPARTMENT—BRANCHES.**

Year Ended 30th June—	Branch.							
	Postal.		Telegraph.		Telephone.		All Branches.	
	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.
	£	£	£	£	£	£	£	£
1928 ..	403,850	..	..	312,075	..	322,438	..	230,663
1929 ..	531,870	..	..	228,134	..	247,212	..	..
1930 ..	557,105	..	..	232,188	..	127,034	197,883	..
1931 ..	721,282	..	..	355,366	..	432,920	..	67,004
1932 ..	1,267,534	..	..	152,435	..	379,090	736,009	..

6. *Capital Account.*—The appended statement shows particulars of the fixed assets of the Postmaster-General's Department at 30th June, 1932.

**FIXED ASSETS, POSTMASTER-GENERAL'S DEPARTMENT, 30th JUNE, 1932.**

Particulars.	Net Value, 1st July, 1931.	Capital Expenditure, 1931-32.	Gross Value, 30th June, 1932.	Less Depreciation, &c. 1931-32. (a)	Net Value, 30th June, 1932.
	£	£	£	£	£
Telephone Lines and equipment	31,239,593	702,756	31,942,349	474,631	31,467,718
Telegraph Lines and Trunk Line equipment ..	10,136,138	94,843	10,230,981	81,613	10,149,368
Postal equipment ..	593,927	18,219	612,146	8,746	603,400
Postal equipment ..	393,675	7,429	401,104	6,086	395,018
Sites, Buildings, Furniture, and Office equipment ..	9,288,913	39,913	9,328,826	16,971	9,311,855
Miscellaneous ..	601,586	17,070	618,656	42,412	576,244
Wireless equipment and Buildings	95,972	35,190	131,162	1,260	129,902
Total ..	52,349,804	915,420	53,265,224	631,719	52,633,505

(a) Includes dismantled assets, depreciation written off, and assets transferred.

During the past quinquennium the value of the fixed assets has increased by 23 per cent., the net value at 30th June, 1927, being £42,888,248.

## § 2. Posts.

1. Postal Matter Dealt With.—(i) *Australia*. The following table gives a summary of the postal matter dealt with in Australia during the five years 1928 to 1932. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the numbers dispatched are included in the following table, which consequently gives the number of distinct articles handled:—

## POSTAL MATTER DEALT WITH—AUSTRALIA.

Year ended 30th June—	Letters, Postcards and Packets.		Newspapers.		Parcels.		Registered Articles.	
	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.
POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.								
1928 .. ..	821,324	131,819	152,666	24,502	14,028	2,252	7,024	1,127
1929 .. ..	797,743	125,959	151,698	23,952	14,873	2,348	7,376	1,164
1930 .. ..	791,241	123,433	150,812	23,527	13,889	2,166	7,267	1,134
1931 .. ..	701,694	108,409	127,959	19,769	9,769	1,509	6,447	996
1932 .. ..	677,847	103,484	118,906	18,153	8,841	1,350	6,096	931

## TOTAL POSTAL MATTER DEALT WITH.

1927 .. ..	928,874	152,072	188,725	30,897	12,903	2,112	8,347	1,366
1928 .. ..	921,149	147,841	183,514	29,453	14,704	2,360	8,074	1,296
1929 .. ..	887,799	140,179	180,612	28,518	15,571	2,458	8,413	1,328
1930 .. ..	865,412	135,004	178,018	27,771	14,586	2,275	8,268	1,290
1931 .. ..	761,508	117,650	152,326	23,534	10,209	1,577	7,244	1,119
1932 .. ..	731,134	111,619	139,502	21,297	9,203	1,405	6,731	1,028

(ii) *States*. The next table shows separately for each State the postal matter dealt with in 1931-32.

## POSTAL MATTER DEALT WITH—STATES, 1931-32. (a)

State.	Letters, Postcards and Packets.		Newspapers.		Parcels.		Registered Articles.	
	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.
POSTED FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	264,860	104,336	56,754	22,357	3,675	1,448	2,275	896
Victoria ..	207,952	115,138	25,002	13,843	1,668	923	1,703	943
Queensland ..	89,275	91,955	20,486	21,101	1,872	1,929	912	939
South Australia	48,507	82,139	7,064	11,962	828	1,402	488	827
Western Australia	43,095	102,016	4,623	10,940	671	1,588	473	1,119
Tasmania ..	24,158	108,918	4,977	22,440	127	573	245	1,105
Australia ..	677,847	103,484	118,906	18,153	8,841	1,350	6,096	931

(a) See explanation in paragraph (i).



## POSTAL MATTER DEALT WITH—STATES, 1931-32(a)—continued.

State.	Letters, Postcards and Packets.		Newspapers.		Parcels.		Registered Articles.	
	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.
<b>OVERSEA DISPATCHED.</b>								
New South Wales	13,340	5,255	1,970	776	79	31	132	52
Victoria ..	8,623	4,774	4,184	2,317	43	24	47	26
Queensland ..	2,299	2,368	560	577	13	13	22	23
South Australia	1,989	3,368	274	464	7	12	31	52
Western Australia	2,400	5,682	341	808	9	21	27	63
Tasmania ..	1,473	6,643	173	781	1	6	1	6
<b>Australia ..</b>	<b>30,124</b>	<b>4,599</b>	<b>7,502</b>	<b>1,145</b>	<b>152</b>	<b>23</b>	<b>260</b>	<b>40</b>
<b>OVERSEA RECEIVED.</b>								
New South Wales	9,500	3,742	6,152	2,424	88	35	177	70
Victoria ..	5,992	3,317	2,043	1,131	62	35	114	63
Queensland ..	2,348	2,418	2,121	2,185	20	20	34	35
South Australia	1,260	2,134	855	1,447	13	21	14	23
Western Australia	3,254	7,704	1,557	3,687	23	54	31	73
Tasmania ..	809	3,646	366	1,650	4	17	4	16
<b>Australia ..</b>	<b>23,163</b>	<b>3,536</b>	<b>13,094</b>	<b>1,999</b>	<b>210</b>	<b>32</b>	<b>374</b>	<b>57</b>

(a) See explanation in paragraph (i).

2. Value-Payable Parcel and Letter Post.—(i) *General.* The Postal Department undertakes to deliver registered articles sent by parcel post within Australia, or between Papua or Nauru and Australia, to recover from the addressee on delivery a specified sum of money fixed by the sender, and to remit the sum to the sender by money order, for which the usual commission is charged. The object of the system is to meet the requirements of persons who wish to pay at the time of receipt for articles sent to them, also to meet the requirements of traders and others who do not wish their goods to be delivered except on payment.

(ii) *Summary of Business.* The next statement gives particulars regarding the value-payable post in each State for the years 1928 to 1932:—

## VALUE-PAYABLE PARCELS POST.—SUMMARY.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>NUMBER OF PARCELS POSTED.</b>							
	No.	No.	No.	No.	No.	No.	No.
1928 .. ..	296,391	20,005	236,040	11,789	79,761	505	644,491
1929 .. ..	313,654	24,426	248,210	14,564	79,699	430	680,983
1930 .. ..	299,930	26,145	232,968	16,653	82,148	420	658,264
1931 .. ..	248,316	27,786	179,564	18,413	75,977	568	550,624
1932 .. ..	280,589	37,144	182,902	25,315	80,330	714	606,994

VALUE-PAYABLE PARCELS POST.—SUMMARY—*continued.*

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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## VALUE COLLECTED.

	£	£	£	£	£	£	£
1928 .. ..	462,794	35,699	350,712	17,095	114,035	1,040	981,375
1929 .. ..	462,964	41,878	364,156	19,964	103,683	859	993,504
1930 .. ..	436,025	42,457	334,491	24,755	101,716	716	940,160
1931 .. ..	342,786	38,596	242,756	21,108	86,103	764	732,113
1932 .. ..	331,328	47,481	230,761	26,931	83,973	920	721,394

## REVENUE INCLUDING POSTAGE, COMMISSION ON VALUE, REGISTRATION AND MONEY ORDER COMMISSION.

	£	£	£	£	£	£	£
1928 .. ..	36,318	2,547	30,700	1,264	8,939	62	79,830
1929 .. ..	38,968	3,116	33,048	1,669	8,914	53	85,768
1930 .. ..	38,518	3,465	30,449	2,044	9,354	52	83,882
1931 .. ..	32,791	3,684	23,430	2,294	8,944	68	71,211
1932 .. ..	36,606	4,787	23,962	3,088	9,450	90	77,983

The number and value of parcels forwarded in New South Wales and Queensland are much higher than in any of the other States, although the system has found favour for several years in Western Australia. These three States have the largest areas, and consequently more people at long distances from business centres who avail themselves of the value-payable system. Although South Australia also has a large area, the population of that State is, comparatively, not widely spread.

3. *Sea-borne Mail Services.*—(i) *General.* In earlier issues of this work particulars of sea-borne mail services were included, but owing to the restrictions of space the insertion of this information terminated with Year Book No. 22.

(ii) *Amount of Subsidies Paid.* The following table shows the amounts of subsidies paid by the Commonwealth Postal Department for ocean and coastal mail services during the year ended 30th June, 1932 :—

## MAIL SUBSIDIES.—OCEAN AND COASTAL SERVICES, 1931–32.

Service.	Orient S.N. Co.	Queens- land Ports.	South Australian Ports.	Western Australian Ports.	Tas- manian Ports.
Annual subsidy .. ..	£ 110,000	£ 1,200	£ 5,000	£ 5,520	£ 30,853

4. *Total Cost of Carriage of Mails.*—During the year 1931–32 the amount paid for conveyance of mails at poundage rates by non-contract vessels was £29,095; by road services, £603,845; and by railway services, £430,234. The total expenditure during the financial year 1931–32 on the carriage of mails, as disclosed by the Profit and Loss Account, amounted to £1,214,859.

5. Transactions of the Dead Letter Offices.—The table hereunder shows the number of letters, postcards and letter-cards, and packets and circulars, including Inland, Interstate, and International, dealt with by the Dead Letter Offices in 1931-32, and the methods adopted in the disposal thereof:—

## DEAD LETTER OFFICES.—SUMMARY, 1931-32.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>LETTERS, POSTCARDS, AND LETTER-CARDS.</b>							
Returned direct to writers or delivered .. .. .	980,417	227,633	177,788	65,537	114,789	82,650	1,648,814
Destroyed in accordance with Act .. .. .	66,457	25,869	25,890	8,334	7,056	2,244	135,870
Returned to other States or Countries as unclaimed .. .. .	43,907	17,513	17,118	4,303	12,031	930	95,802
<b>Total .. .. .</b>	<b>1,090,781</b>	<b>271,015</b>	<b>220,796</b>	<b>78,194</b>	<b>133,876</b>	<b>85,824</b>	<b>1,880,486</b>
<b>PACKETS AND CIRCULARS.</b>							
Returned direct to writers or delivered .. .. .	687,775	92,123	152,882	7,772	74,358	33,864	1,048,774
Destroyed in accordance with Act .. .. .	105,804	41,903	31,805	57,214	1,657	468	238,851
Returned to other States or Countries as unclaimed .. .. .	1,706	12,042	4,538	5,101	783	252	24,422
<b>Total .. .. .</b>	<b>795,285</b>	<b>146,068</b>	<b>189,225</b>	<b>70,087</b>	<b>76,798</b>	<b>34,584</b>	<b>1,312,047</b>
<b>Grand Total (letters, packets, etc.) .. .. .</b>	<b>1,886,066</b>	<b>417,083</b>	<b>410,021</b>	<b>148,281</b>	<b>210,674</b>	<b>120,408</b>	<b>3,192,533</b>

During the year 1931-32 money and valuables to the amount of £62,149 were found in undelivered postal articles, while 37,057 postal articles were posted without address, including 421 which contained money and valuables to the extent of £1,819.

6. Money Orders and Postal Notes.—(i) *General.* The issue of money orders and postal notes is regulated by sections 74 to 79 of the Post and Telegraph Act, 1901. A money order may be issued for payment of sums up to £20 within Australia, and not exceeding £40 (in some cases £20, and in Mauritius £10) in places abroad. A postal note which is payable only within Australia and in Papua, cannot be issued for a larger sum than twenty shillings.

(ii) *States, 1931-32.* Particulars regarding the business transacted in each State for the year 1931-32 are given hereunder:—

## MONEY ORDERS AND POSTAL NOTES.—SUMMARY, 1931-32.

State.	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Sold.	Poundage Received on Postal Notes.
	£	£	£	£	£
New South Wales .. .. .	7,101,048	7,196,101	45,688	2,557,284	56,911
Victoria .. .. .	2,614,520	2,818,972	17,137	1,543,392	35,921
Queensland .. .. .	2,303,644	2,120,414	15,985	643,259	14,398
South Australia .. .. .	771,902	771,717	6,339	347,149	8,156
Western Australia .. .. .	1,133,643	1,058,113	9,823	339,522	7,461
Tasmania .. .. .	425,759	401,663	2,982	148,075	3,419
<b>Australia .. .. .</b>	<b>14,350,516</b>	<b>14,366,980</b>	<b>97,954</b>	<b>5,578,681</b>	<b>126,266</b>

The figures in the foregoing table relating to money orders show a substantial decrease compared with the corresponding particulars for the previous year, while those referring to postal notes show an increase.

(iii) *Australia, 1928 to 1932.* The next table shows the total number and value of money orders and postal notes issued and paid in Australia from 1927-28 to 1931-32 :—

**MONEY ORDERS AND POSTAL NOTES.—SUMMARY, AUSTRALIA.**

Year ended 30th June—	Money Orders.				Postal Notes.			
	Issued.		Paid.		Issued.		Paid.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
	No. (,000).	£ (,000).	No. (,000).	£ (,000).	No. (,000).	£ (,000).	No. (,000).	£ (,000).
1928 ..	3,349	17,011	3,188	16,411	15,402	5,579	15,357	5,568
1929 ..	3,416	17,094	3,233	16,503	15,626	5,741	15,591	5,737
1930 ..	3,415	17,447	3,224	16,811	15,879	5,843	15,924	5,968
1931 ..	3,055	15,790	2,989	15,381	14,691	5,343	14,731	5,348
1932 ..	2,781	14,351	2,788	14,367	16,205	5,579	16,132	5,563

(iv) *Classification of Money Orders Issued and Paid.* (a) *Orders Issued.* The next table shows the number and value of money orders issued during the year 1931-32, classified according to the country where payable :—

**MONEY ORDERS ISSUED.—COUNTRY WHERE PAYABLE, 1931-32.**

Where Issued.	Where Payable.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
<b>NUMBER.</b>					
Australia .. ..	2,647,267	10,970	78,069	44,841	2,781,147
<b>VALUE.</b>					
Australia .. ..	£ 13,911,254	£ 29,807	£ 219,276	£ 190,179	£ 14,350,516

(b) *Orders Paid.* The number and value of money orders paid during the year 1931-32, classified according to the country where issued, are given hereunder :—

**MONEY ORDERS PAID.—COUNTRY OF ISSUE, 1931-32.**

Where Paid.	Where Issued.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
<b>NUMBER.</b>					
Australia .. ..	2,666,125	41,292	54,826	25,537	2,787,780
<b>VALUE.</b>					
Australia .. ..	£ 13,940,757	£ 83,939	£ 250,682	£ 91,602	£ 14,366,980

In the tables above, money orders payable or issued in foreign countries which have been sent from or to Australia through the General Post Office at London are included in those payable or issued in Great Britain and Ireland.

(v) *Classification of Postal Notes Paid.* The subjoined table shows the number and value of postal notes paid during the year 1931-32, classified according to the State in which they were issued.

Particulars regarding the total number and value of postal notes issued and paid in each of the last five years have been given previously.

POSTAL NOTES PAID.—STATE OF ISSUE, 1931-32.

Particulars.	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
NUMBER.							
Issued in same State	6,734,619	3,019,162	1,432,613	683,653	800,048	330,096	13,000,191
Issued in other States	895,644	420,634	381,022	74,707	35,338	1,324,253	3,131,598
<b>Total</b> ..	<b>7,630,263</b>	<b>3,439,796</b>	<b>1,813,635</b>	<b>758,360</b>	<b>835,386</b>	<b>1,654,349</b>	<b>16,131,789</b>
VALUE.							
Issued in same State	£ 2,306,020	£ 1,081,211	£ 513,130	£ 236,411	£ 293,175	£ 110,066	£ 4,540,013
Issued in other States	277,030	159,769	109,945	30,193	12,508	433,306	1,022,751
<b>Total</b> ..	<b>2,583,050</b>	<b>1,240,980</b>	<b>623,075</b>	<b>266,604</b>	<b>305,683</b>	<b>543,372</b>	<b>5,562,764</b>

The number and value of postal notes paid in Australia during the year showed an increase of 9.5 per cent. and 4.0 per cent. respectively compared with the corresponding figures for the year 1930-31.

### § 3. Telegraphs.

i. *General.*—(i) *Development of System.* A review of the development of the Telegraph Services in Australia was given in a previous issue of this work (see Year Book No. 15), but limitations of space preclude the repetition of this information in the present issue. During the past few years substantial improvements in both the speed and grade of telegraph service throughout Australia have been effected, the entire system being subjected to intensive re-organization.

(ii) *External Circulation or Routing of Traffic.* The external circulation system of the Australian telegraph service has been considerably modified, direct communication having been established between cities and towns which formerly were served through intermediate repeating centres. The re-organization has eliminated the loss of time in transit, improved the grade of service, and led to economy as regards the labour formerly required in manual re-transmission. As a result of the re-organization there are now only nine repeating centres, fourteen centres having been abolished.

(iii) *Carrier Wave System.* This system which permits a number of messages to be transmitted simultaneously over the one line is now in operation between Perth and Adelaide, Adelaide and Melbourne, Melbourne and Sydney, and Sydney and Brisbane. There are now 38,260 miles of uni-directional telegraph carrier channels in operation.

(iv) *Direct Telegraph Communication over Great Distances.* The telegraph system in Australia provides direct communication between many places separated by great distances as indicated in the following examples:—Sydney-Perth, 2,695 miles; Perth-Wyndham, 1,933 miles; Melbourne-Brisbane, 1,246 miles; Brisbane-Cairns, 1,056 miles; Adelaide-Perth, 1,627 miles; Melbourne-Perth, 2,104 miles; Adelaide-Darwin, 1,940 miles; and Sydney-Adelaide, 1,068 miles. These direct channels provide a speedy service between the centres named, the average time involved in the transmission of a telegram being ten minutes.

(v) *Machine Telegraphy.* In order to speed up transmission, machine printing telegraph systems have been introduced between capital cities and between important country centres. Murray multiplex machine apparatus is in operation between Sydney

and Melbourne, Sydney and Brisbane, Sydney and Adelaide, Sydney and Perth, Melbourne and Brisbane, Melbourne and Adelaide, Melbourne and Perth, Adelaide and Perth, Brisbane and Rockhampton, and Brisbane and Townsville, providing telegraph outlets which permit the carriage of very heavy loads with a minimum transit time. The operation of the apparatus has been steadily improved, and now is worked so that each channel has an output up to 50 words per minute. Between Sydney and Bathurst, Sydney and West Maitland, Melbourne and Bendigo, Melbourne and Mildura, Brisbane and Toowoomba, Brisbane and Charleville, Perth and Fremantle, and Perth and Kalgoorlie, start-stop telegraph printing systems are in operation.

(vi) *Phonogram Service.* Telephone subscribers may now telephone telegrams for onward transmission, or have messages telephoned to them. The fee for the service is small, and the innovation means, in effect, that the telegraph system is brought into the home of every telephone subscriber. The number of telegrams lodged by telephone during the twelve months ended 31st December, 1932, was 1,585,515 or 12.7 per cent. of the total lodgments, and the popularity of this facility is growing.

(vii) *Radiograms within the Commonwealth.* On 1st May, 1929, the rates for radiograms between Flinders Island, King Island, Wave Hill, Brunette Downs and other places within the Commonwealth were reduced to 1½d. per word with a minimum charge of two shillings. Communication at these rates was extended to Lord Howe Island in August, 1929.

(viii) *Picturegram Service.* During the year ended 30th June, 1932, 174 picturegrams were transmitted between Sydney and Melbourne, the revenue being £402. Any kind of picture or document may be accepted for transmission, the charges varying from 3os. to 67s. 6d. according to the size of the picture or document and the grade of transmission desired.

2. *Telegraph Offices, Length of Lines and Wire.*—(i) *Summary for Australia.* The following table shows the number of telegraph offices and the length of telegraph lines and of telegraph wire available for use in Australia in each year from 1928 to 1932 :—

## TELEGRAPHS, AUSTRALIA.—SUMMARY.

Particulars for Year ended 30th June.	1928.	1929.	1930.	1931.	1932.
Number of offices .. .. .	9,136	9,252	9,317	9,189	9,225
Length of wire (miles)—					
Telegraph purposes only .. .. .	73,303	72,642	71,629	62,009	58,891
Telegraph and telephone purposes ..	87,376	87,303	88,785	98,140	98,369
Length of line (miles)—					
Conductors in Morse cable .. .. .	3,441	3,500	3,735	3,789	4,157
Conductors in submarine cable					
(statute miles) .. .. .	4,505	4,676	4,524	4,859	4,863
Pole routes (miles) .. .. .	97,110	96,467	98,450	100,596	100,507

(ii) *States.* The following table gives corresponding particulars for each State for the year 1931-32 :—

## TELEGRAPHS.—STATES, SUMMARY, 30th JUNE, 1932.

Particulars.	N.S.W.	Victoria.	Q'land.	S.Aust.	W.Aust.	Tas.	Australia.
Number of offices .. .. .	3,072	2,426	1,436	795	957	539	9,225
Length of wire (miles)—							
Telegraph purposes only	20,949	8,301	12,885	7,276	8,746	734	58,891
Telegraph and telephone purposes ..	35,493	14,663	26,281	11,312	6,942	1,673	98,369
Length of line (miles)—							
Conductors in Morse cable	2,019	1,434	471	..	209	24	4,157
Conductors in submarine cable (statute miles) ..	3,601	282	313	251	..	416	4,863
Pole routes (miles) .. .. .	34,962	19,342	15,923	15,059	11,699	3,522	100,507

A total length of 157,260 miles of wire is available for telegraph purposes, of which 98,369 miles are also used for telephone purposes. Compared with those for the previous year the figures show a decrease of 2,889 miles (1.8 per cent.) in the total length and an increase of 129 miles (0.13 per cent.) in the length of line used for both telegraph and telephone purposes. The decrease in the mileage of wire available for telegraph purposes only is due to the extension of the practice of superimposing telegraph facilities over telephone wires.

3. Number of Telegrams Dispatched.—(i) *Australia*. The number of telegrams dispatched to destinations within Australia in each of the last five years is given hereunder :—

**TELEGRAMS DISPATCHED.—AUSTRALIA.**

Telegrams.	Year ended 30th June—				
	1928.	1929.	1930.	1931.	1932.
Number (a) ..	16,608,226	16,345,152	15,724,246	12,985,298	12,679,951

(a) Including interstate cablegrams.

(ii) *States*. The appended table shows the total number of telegrams dispatched in each State in 1931–32 according to the class of message transmitted :—

**TELEGRAMS DISPATCHED.—STATES, 1931–32.**

Class of Message Transmitted within the Commonwealth.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>Paid and Collect—</b>							
Ordinary ..	3,477,640	2,482,595	1,990,999	846,500	1,160,641	233,219	10,191,594
Urgent ..	249,618	98,405	73,799	29,324	41,322	0,218	500,686
Press ..	217,464	139,658	96,367	36,591	30,575	20,844	541,499
Lettergram ..	74,200	71,087	72,520	32,556	77,572	30,380	358,315
Radiogram ..	7,337	4,869	4,041	3,679	2,551	5,653	28,130
<b>Total ..</b>	<b>4,026,259</b>	<b>2,796,614</b>	<b>2,237,726</b>	<b>943,650</b>	<b>1,312,661</b>	<b>298,314</b>	<b>11,620,224</b>
<b>Unpaid—</b>							
Service ..	128,604	51,358	44,259	40,262	47,104	16,687	328,274
Shipping ..	28,931	86,591	20,127	3,943	12,076	5,225	156,893
Meteorological ..	179,181	78,130	76,058	83,247	127,171	25,773	574,560
<b>Total ..</b>	<b>336,716</b>	<b>216,079</b>	<b>140,444</b>	<b>132,452</b>	<b>186,351</b>	<b>47,685</b>	<b>1,059,727</b>
<b>Grand Total</b>	<b>4,362,975</b>	<b>3,012,693</b>	<b>2,378,170</b>	<b>1,081,102</b>	<b>1,499,012</b>	<b>345,999</b>	<b>12,679,951</b>

The figures in the foregoing table show a decrease in the total volume of telegraph business of 305,347 messages (2.3 per cent.) as compared with the previous year.

4. **Letter-telegrams.**—Letter-telegrams are accepted at any hour at telegraph offices, which are open for business after 7 p.m., subject to the condition that delivery is effected by posting at the letter-telegram office of destination.

5. **Revenue and Expenditure.**—Particulars of the revenue and expenditure of the telegraph systems for the years 1927–28 to 1931–32 are given in earlier pages.

6. **Telegraph Density.**—Analysis of the latest world statistics available discloses a high telegraph density in Australia; the ratio of telegrams to population being the highest for any country in the world except New Zealand. The following table gives the figures for the more important countries :—

**TELEGRAPH DENSITY STATISTICS—CHIEF COUNTRIES.**

Country.	Percentage of Telegraph to Total Wire Communication.	Telegraph Communication per Head of Population.
Australia .. .. .	3.1	2.1
Austria .. .. .	0.5	0.4
Belgium .. .. .	2.3	0.7
Canada .. .. .	0.5	1.2
Czechoslovakia .. .. .	1.8	0.4
Denmark .. .. .	0.4	0.6
France .. .. .	3.8	0.8
Germany .. .. .	0.8	0.3
Great Britain .. .. .	2.9	1.0
Hungary .. .. .	1.9	0.3
Japan .. .. .	1.5	0.8
Netherlands .. .. .	0.8	0.5
New Zealand .. .. .	1.4	2.9
Norway .. .. .	1.2	1.1
Poland .. .. .	0.6	0.1
Spain .. .. .	3.4	1.0
Sweden .. .. .	0.5	0.6
Switzerland .. .. .	1.0	0.6
Union of South Africa .. .. .	2.3	0.6
United States of America .. .. .	0.7	1.5

**§ 4. Overseas Cable and Radio Communication.**

1. **First Cable Communication with the Old World.**—In earlier issues of the Year Book will be found a detailed account of the connexion of Australia with the old world by means of submarine cables. (See No. 6, p. 770.)

2. **General Cable Services.**—Descriptions of the various cable services between Australia and other countries are given in Year Book No. 22, pp. 335 and 336.

3. **Merging of Cable and Wireless Interests.**—Following upon the recommendations of the Imperial Wireless and Cable Conference in London in 1928 to examine the situation which had arisen as the result of the competition of the Beam Wireless with the Cable services, the Imperial and International Communications Limited was formed and took over the operations of the Pacific Cable Board and the control of the Eastern Extension Cable Company and the Marconi Wireless Company.

4. **Overseas Cable and Radio Business.**—(i) *Australia.* The subjoined table shows the number of cablegrams and radiograms received and dispatched in Australia from 1929-30 to 1931-32 :—

**CABLEGRAMS AND RADIOGRAMS.—AUSTRALIA.**

Messages.	Number Received.			Number Dispatched.			Total Number Received and Dispatched.		
	1929-30.	1930-31.	1931-32.	1929-30.	1930-31.	1931-32.	1929-30.	1930-31.	1931-32.
Number ..	718,339	572,423	564,205	781,982	647,655	610,763	1,500,321	1,220,078	1,174,968



(ii) *States.* The number of cablegrams received and dispatched in each State during the year 1931-32 is given hereunder :—

**CABLEGRAMS AND RADIOGRAMS.—STATES, 1931-32.**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number received ..	287,696	187,894	24,720	27,399	28,343	8,153	564,205
Number dispatched	301,117	202,870	31,618	31,060	35,040	9,058	610,763
Total ..	588,813	390,764	56,338	58,459	63,383	17,211	1,174,968

(a) Exclusive of interstate cablegrams, which are included with interstate telegrams.

5. **Cable and Radio (Beam) Rates.**—(i) *Ordinary Messages.* From 1st February, 1927, the cable rates (per word) between Australia and Great Britain were reduced as follows :—Ordinary, 2s. 6d. to 2s. ; deferred ordinary, 1s. 3d. to 1s. ; and Government, 1s. 4d. to 1s. 0½d., and substantial reductions were also made on the Canadian service (via Pacific) as from the same date. The following are the rates at present operating in regard to traffic with the principal countries :—

**CABLEGRAM AND RADIOGRAM RATES, JUNE, 1932.**

To—	Rate per Word and Route.		
	Via Pacific.	Via Eastern.	Via Beam.
European Countries ..	2s. 6d. to 2s. 7d.	2s. 6d. to 2s. 7d.	1s. 11½d. to 2s. 5½d.
Asiatic Countries ..	5s. 3d. to 6s. 3d.	2s. 5d. to 4s. 7d.	..
Africa .. ..	..	1s. 8d. to 5s. 4d.	2s. 2½d. to 2s. 11d.
North America ..	1s. 7d. to 3s. 5d.	2s. 4d. to 4s. 4d.	1s. 5½d. to 3s. 7d.
Central America ..	3s. 10d. to 4s. 4d.	5s. to 6s. 1d.	3s. 5½d. to 4s. 10d.
West Indies .. ..	3s. to 5s. 3d.	4s. to 5s. 8d.	..
South America ..	4s. 1d. to 6s. 8d.	4s. 1d. to 7s. 5d.	3s. 9d. to 6s.

(ii) *Deferred Telegrams (via Cable or Radio).* Under this system a reduction of 50 per cent. in the ordinary cable or radio charges is made under certain conditions. Any such messages which have not reached their destination within 24 hours may be transmitted in turn with full-rate messages. This service, together with the "Daily Letter Telegram" service, has affected the ordinary business to a considerable extent. "Deferred Press" telegrams, subject to a delay of 18 hours, may be exchanged between Australia and (a) Great Britain at the rate of 4½d. per word by cable and 3d. per word via radio ; (b) Canada, at 2½d. per word by cable and 2½d. per word via radio ; and (c) United States of America, at 3d. to 4d. per word by cable and 3½d. to 4d. per word via radio.

(iii) *Daily Letter Telegrams.* The Daily Letter Telegram service was inaugurated in September, 1923, between Australia and Great Britain and Canada, later being extended to most countries in the British Empire and in Europe, to the United States and to certain other places. In accordance with the decision of the International Telegraph Conference which was held at Madrid in 1932, the charges on Daily Letter Telegrams have, since 1st April, 1933, been based on one-third of the tariff per word for full-rate messages, and are now subject to a minimum charge as for 25 words (in lieu of 20 as previously). These messages are deliverable on the morning of the second day following that of lodgment.

(iv) *Week-end Letter Telegrams.* The Week-end Letter Telegram facility which had been in operation for a number of years between Australia and certain other countries was abolished on 1st April, 1933, in accordance with the decision of the Madrid International Telegraph Conference.

(v) *Press Telegrams.* The rate per word on press messages exchanged with Great Britain is 6d. via cable and 4d. via radio.

(vi) *Night Letter Telegrams.* A Night Letter Telegram service was introduced between Australia and New Zealand on 1st May, 1924, and was extended to Fiji on 1st December, 1924. As from 1st April, 1933, the minimum charge for messages has been fixed as for 25 words (in lieu of 20 as previously) in accordance with a decision of the Madrid Conference, the minimum charges being—to New Zealand, 3s. 9d. minimum, 2d. for each additional word beyond 25; Suva, 5s. 10d. minimum, 3d. each additional word; other places in Fiji, 7s. 4d. minimum, and 4d. for each additional word beyond 25. Night Letter Telegrams are accepted at any time and are delivered by first post on the morning following receipt.

### § 5. Telephones.

1. Telephone Services.—(i) *Mileage, etc., Australia.* The following table shows the mileage of lines, etc., for telephone purposes, giving trunk lines separately, on 30th June, 1930 to 1932:—

#### TELEPHONE LINES.—AUSTRALIA.

Particulars..	1930.	1931.	1932.
<b>Ordinary Lines—</b>			
Conduits .. .. duct miles	5,844	6,047	6,217
" .. .. route miles	3,310	3,416	3,571
Conductors in aerial cables .. loop mileage	5,461	5,213	4,436
Conductors in underground cables .. "	761,723	789,736	800,081
Conductors in cables for junction circuits .. "	101,040	105,047	103,237
Open conductors .. single wire mileage	424,007	422,737	418,264
<b>Trunk Lines—</b>			
Telephone trunk lines only .. .. miles	232,909	233,543	236,209
Telegraph and telephone purposes .. .. "	88,785	98,140	98,369

(ii) *Comparison with Other Countries.* Despite the depressed business conditions Australia still maintains its position in the list of countries showing the most rapid advance in the use of the telephone, and it occupies sixth place, with 74.0 telephones per 1,000 of population. This position may be considered highly satisfactory in view of the area and distribution of population in Australia and the average length of wire required to provide a subscriber's service. The average length of wire per telephone in Australia is 5.3 miles, as compared with 4.4 miles in the United States of America, 3.7 miles in New Zealand and 3.6 miles in Canada.

(iii) *Trunk Line System.* Owing to the financial stringency, extensions of the trunk line system were necessarily on a smaller scale than usual in 1931-32. The objective aimed at is to provide facilities whereby any telephone subscriber may communicate with any other subscriber in the Commonwealth with reasonable promptitude. Following on the provision of a telephone service between Adelaide and Perth in 1930, commercial communication is now available between the whole of the States on the mainland. Communication with Tasmania depends on the construction of the proposed submarine telephone cable from Lorne (Vic.) via King Island to Stanley (Tas.).

The carrier system of telephony, whereby several additional channels of communication may be obtained over one pair of wires, thus obviating the costly expenditure involved in erecting additional wire along important routes where the business justifies extra channels, is being availed of to an increasingly greater extent,

At the 30th June, 1933, there were fifty carrier telephone systems in operation in Australia, giving a total of eighty-five channels with an aggregate channel mileage of approximately 23,700 miles.

(iv) *Automatic Exchanges.* At 30th June, 1932, there were 68 automatic or semi-automatic exchanges in operation providing facilities for 192,390 telephones, 186,979 of which were in the metropolitan areas. Encouraging results have been obtained from the trials made of specially constructed automatic units designed to provide an economical day and night service at rural exchanges, and it is proposed to install an additional number of units so that improved facilities may be made available in districts where, owing to the small volume of traffic, the expense of establishing continuous telephone attendance by other means is not justified.

(v) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1930 to 1932, will be found in the following table:—

TELEPHONE SERVICES.—SUMMARY.

Particulars.	Year (30th June).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
No. of Exchanges ..	1930	1,951	1,656	924	551	652	360	6,094
	1931	1,946	1,652	934	553	646	355	6,086
	1932	1,942	1,641	938	552	648	348	6,069
No. of Telephone Offices (Including Exchanges)	1930	3,008	2,358	1,417	786	970	520	9,059
	1931	2,993	2,353	1,424	787	934	516	9,007
	1932	2,981	2,350	1,429	790	937	513	9,000
No. of lines connected ..	1930	150,606	118,074	49,737	42,868	22,558	11,969	395,812
	1931	141,445	113,282	48,979	39,552	21,258	11,727	376,243
	1932	135,179	110,213	48,346	37,815	20,639	11,380	363,572
No. of instruments con- nected	1930	199,007	160,381	62,607	54,550	29,082	14,542	520,169
	1931	188,345	154,647	62,375	50,656	27,734	14,298	498,055
	1932	181,326	151,455	62,005	48,696	27,117	13,967	484,626
(a) No. of subscribers' instruments	1930	194,253	157,325	60,451	53,189	27,829	13,747	506,794
	1931	183,507	151,190	60,065	49,237	26,505	13,499	484,003
	1932	176,426	147,989	59,740	47,181	25,884	13,148	470,368
(b) No. of public tele- phones	1930	2,879	2,295	1,522	785	957	528	8,966
	1931	2,944	2,213	1,527	788	900	525	8,897
	1932	2,986	2,199	1,532	788	903	544	8,952
(c) No. of other local instruments	1930	1,875	761	634	576	296	267	4,409
	1931	1,894	1,244	783	631	329	274	5,155
	1932	1,914	1,267	793	727	330	275	5,306
Instruments per 100 of population	1930	7.98	8.99	6.64	9.32	6.95	6.75	8.08
	1931	7.49	8.60	6.50	8.61	6.59	6.52	7.66
	1932	7.15	8.39	6.38	8.25	6.42	6.32	7.40
Earnings .. ..		£	£	£	£	£	£	£
	1930	2,361,924	1,685,377	839,531	632,367	363,327	150,507	6,033,033
	1931	2,246,395	1,628,164	819,395	568,925	328,833	139,636	5,731,348
1932	2,087,878	1,556,936	798,088	529,743	303,527	134,905	5,411,077	
Working expenses ..	1930	1,660,982	1,230,603	678,680	563,847	271,644	187,676	4,593,432
	1931	1,643,800	1,219,722	558,500	496,697	272,543	167,225	4,358,487
	1932	1,351,053	1,033,698	485,962	405,252	241,369	143,919	3,661,253
Percentage of working ex- penses on earnings	1930	70.32	73.02	80.84	89.16	74.77	124.70	76.14
	1931	73.18	74.91	68.16	87.30	82.88	119.76	76.05
	1932	64.71	66.39	60.89	76.50	79.52	106.68	67.66

The number of instruments per 100 of population declined from 7.66 in 1930-31 to 7.40 in 1931-32. The actual number of instruments decreased from 498,055 to 484,626, a loss of 2.69 per cent. Of the 484,626 instruments connected at 30th June, 1932, 214,755, or 44.3 per cent., were served by exchanges situated beyond the limits of the telephone networks of the six State capital cities. The metropolitan networks are limited to a radius of 15 miles from the General Post Office in Sydney and Melbourne, and 10 miles in the other State capital cities.

(vi) *Systems in Use.* The following table shows the percentage of automatic, common battery, and magneto telephone lines at 30th June, 1930 to 1932 :—

**PERCENTAGE OF AUTOMATIC, COMMON BATTERY, AND MAGNETO LINES.**

System.		30th June.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Automatic .. ..	1930		42.5	39.2	34.3	38.9	41.3	28.7	39.5
	1931		41.8	37.3	34.1	37.9	40.9	28.7	38.5
	1932		42.6	37.1	35.7	37.3	40.8	29.0	38.9
Common Battery .. ..	1930		3.0	18.6	..	13.7	6.3	16.6	9.1
	1931		2.9	18.6	..	13.4	6.1	16.8	9.0
	1932		2.9	19.0	..	13.5	6.2	17.2	9.1
Magneto .. ..	1930		54.5	42.2	65.7	47.4	52.4	54.7	51.4
	1931		55.3	44.1	65.9	48.7	53.0	54.5	52.5
	1932		54.5	43.9	64.3	49.2	53.0	53.8	51.9

(vii) *Subscribers' Lines and Calling Rates.* The next table gives the number of subscribers' lines and the daily calling rate at central, suburban, and rural telephone exchanges in the several States for the year 1931-32 :—

**TELEPHONES.—SUBSCRIBERS' LINES AND DAILY CALLING RATE, 1931-32.**

State.	Central Exchanges.		Suburban Exchanges.		Rural Exchanges.		Total.	
	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.
New South Wales	13,817	11.13	62,058	3.97	58,903	2.08	134,778	3.88
Victoria ..	7,407	10.00	56,296	3.89	46,527	1.63	110,230	3.35
Queensland ..	6,469	8.92	11,876	3.21	29,488	2.31	47,833	3.43
South Australia ..	5,163	7.95	14,862	3.19	17,978	1.43	38,003	3.00
Western Australia	6,837	5.85	3,868	3.80	9,938	1.36	20,643	3.33
Tasmania ..	2,711	3.96	1,006	2.21	7,552	1.90	11,269	2.42
Australia ..	42,404	8.90	149,966	3.79	170,386	1.88	362,756	3.49

A comparison of the daily calling rates for each class of exchange shows that New South Wales registered the greatest number per line at central and suburban exchanges, and Queensland at rural exchanges. For Australia as a whole, the average number of calls per line at central exchanges was nearly two and a half times the number registered at suburban exchanges, while the average for suburban exchanges was slightly more than double the number shown for rural exchanges.

(viii) *Trunk Line Calls and Revenue.* In the following table the number of telephone trunk line calls recorded, the amount of revenue received, and the average revenue per call are shown for each of the States for the years 1929-30 to 1931-32 :—

**TELEPHONES.—TRUNK LINE CALLS AND REVENUE.**

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
Total Calls for Year—	No.	No.	No.	No.	No.	No.	No.
1929-30 ..	12,250,856	9,380,862	6,190,891	3,966,504	2,075,417	1,524,185	35,388,715
1930-31 ..	10,384,188	8,100,657	5,549,423	3,099,105	1,736,945	1,293,759	30,164,077
1931-32 ..	9,678,897	8,067,603	5,334,890	3,059,101	1,549,363	1,218,231	28,908,085
Total Revenue for Year—	£	£	£	£	£	£	£
1929-30 ..	549,585	382,055	331,305	174,119	110,955	49,048	1,597,067
1930-31 ..	512,403	358,833	318,748	142,557	90,085	43,494	1,466,120
1931-32 ..	480,847	357,688	300,801	140,023	83,831	41,500	1,404,690
Average Revenue per Call—	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1929-30 ..	10.76	9.77	12.84	10.54	12.83	7.72	10.83
1930-31 ..	11.84	10.63	13.78	11.04	12.45	8.07	11.66
1931-32 ..	11.91	10.64	13.53	10.99	12.99	8.18	11.66

The number of trunk line calls originated during 1931-32 decreased by over a million compared with the figures for the previous year, but the average revenue per call remained the same.

2. Revenue from Telephones.—Particulars regarding the revenue from telephone services are included in tables in § 1.

### § 6. Radio Telegraphy and Telephony.

1. Radio Telegraphy and Telephony.—(i) *General.* A statement in regard to the initial steps taken to establish radio telegraphy in Australia was given in Official Year Book No. 18, p. 343.

Under the Wireless Telegraphy Act and Regulations, no wireless station can be installed or operated without a licence from the Postmaster-General. Licences are issued for the following :—(a) Coast Stations, which are operated at various points around the coast and in Papua and New Guinea by Amalgamated Wireless (Australasia) Ltd., under agreement with the Commonwealth; (b) Ship Stations. Regulations under the Navigation Act require that all ships registered in Australia of 1,600 tons or more registered tonnage or carrying more than twelve passengers, shall be fitted with an efficient radio telegraph installation; (c) Land Stations to be operated where no telegraph of telephone facilities exist; (d) Broadcasting Stations, other than those of the National Broadcasting Service; (e) Broadcast Listeners' Receiving Sets; (f) Portable Stations, for transportable sets on motor cars, &c.; (g) Aircraft Stations; (h) Experimental Stations; and (i) Special Stations, for services other than those named above.

The following table shows the number of each class of licence issued in each State, etc., during the years 1931-32 and 1932-33 :—

#### WIRELESS LICENCES, 1931-32.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.	Papua and New Guinea	Grand Total.
Coast .. ..	2	1	6	1	5	3	1	19	9	28
Ship .. ..	10	54	12	20	6	1	..	103	..	103
Land (b) ..	8	3	3	1	2	3	3	23	3	26
Broadcasting (a) ..	16	13	8	6	4	3	..	50	..	50
Broadcast listeners' ..	141,450	139,323	28,938	37,120	12,679	9,540	22	369,072	20	369,092
Experimental ..	295	269	160	93	67	27	..	851	6	857
Portable .. ..	9	1	7	..	1	..	5	23	..	23
Special .. ..	28	12	..	1	6	..	..	47	..	47
<b>Total Licences issued</b>	<b>141,818</b>	<b>139,676</b>	<b>29,074</b>	<b>37,242</b>	<b>12,770</b>	<b>9,577</b>	<b>31</b>	<b>370,188</b>	<b>38</b>	<b>370,226</b>

(a) In addition there are twelve stations operated by the National Broadcasting Service. (b) In addition to the licensed stations, two are operated by the Postmaster-General's Department, viz. :—Wave Hill (N.T.) and Camooweal (Q.).

#### WIRELESS LICENCES, 1932-33.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.	Papua and New Guinea	Grand Total.
Coast .. ..	2	1	6	1	5	3	1	19	9	28
Ship .. ..	21	60	2	12	4	..	..	99	..	99
Land (b) ..	8	3	3	1	2	3	4	24	3	27
Broadcasting (a) ..	15	14	8	4	4	3	..	48	..	48
Broadcast listeners' ..	178,000	170,995	36,146	50,097	20,536	12,563	53	468,390	40	468,430
Experimental ..	387	323	126	111	68	30	..	1,045	2	1,047
Portable .. ..	9	1	7	2	1	..	5	25	..	25
Special .. ..	26	11	..	1	6	..	..	44	..	44
<b>Total Licences Issued</b>	<b>178,468</b>	<b>171,408</b>	<b>36,298</b>	<b>50,229</b>	<b>20,626</b>	<b>12,602</b>	<b>63</b>	<b>469,694</b>	<b>54</b>	<b>469,748</b>

(a) In addition there are twelve stations operated by the National Broadcasting Service. (b) In addition to the licensed stations two are operated by the Postmaster-General's Department, viz. :—Wave Hill (N.T.) and Camooweal (Q.).

(ii) *Broadcasting.* (a) *The National Broadcasting Service.* The technical services for the National Service are provided by the Postmaster-General's Department, and the programmes by the Australian Broadcasting Commission, a body consisting of five members, constituted under the provisions of the Australian Broadcasting Commission Act. The Department receives 9s. and the Commission 12s. from each listener's licence fee of 24s.

There are at present twelve National Stations—2*F.C.* Sydney, 2*B.L.* Sydney, 2*N.C.* Newcastle—regional station—programmes relayed from Sydney, 2*C.O.* Corowa—regional station—programmes relayed from Melbourne, 3*L.O.* Melbourne, 3*A.R.* Melbourne, 4*Q.G.* Brisbane, 4*R.K.* Rockhampton—regional station—programmes relayed from Brisbane, 5*C.L.* Adelaide, 5*C.K.* Crystal Brook—regional station—programmes relayed from Adelaide, 6*W.F.* Perth, 7*H.O.* Hobart.

Additional regional stations will soon be erected with a view to ensuring satisfactory reception in all but the very sparsely populated centres of the Commonwealth.

(b) *Licensed Stations.* The services of other broadcasting stations are conducted by private enterprise under licence from the Postmaster-General. Licences are granted on conditions which ensure satisfactory alternative programmes for listeners. The fee for a broadcasting station licence is £25 and the maximum period of a licence is three years. The licensees of these stations do not share in the listeners' licence fees, but rely for their income on revenue received from the broadcasting of advertisements and other publicity.

(c) *Simultaneous Broadcasts.* Simultaneous broadcasting in the various States has been a regular feature for some years. By means of telephone trunk lines and amplifying apparatus, items of national interest and programmes of special merit are distributed to the various stations of the National Broadcasting Service. In some cases they are relayed overseas by means of short wave stations or the Anglo-Australian radiotelephone service. Frequently, the licensed stations also are linked by telephone trunk lines for simultaneous broadcasts.

(iii) *Beam Wireless.* The Beam wireless stations provided for under the agreement between the Commonwealth Government and Amalgamated Wireless (Australasia) Ltd. were completed early in 1927, and a direct beam wireless service to England was established on 8th April, 1927. A similar service to Canada, United States, and Mexico was opened on 16th June, 1928. Satisfactory communication is maintained daily over a period of hours, and the services are being well patronized by the public. A comparison of the rates charged for "Beam" and Cable messages is given in § 4, Overseas Cable and Wireless Communication. Particulars of international traffic via "Beam" are given in para. (vi) (a) hereunder.

(iv) *International Wireless Telephone Service.* A wireless telephone service between Australia and England was opened on the 30th April, 1930. Since then, additional direct services have been opened to New Zealand and Java, and the Anglo-Australian service has been extended to most of the countries in Europe, and to Egypt, Palestine, certain trans-Atlantic liners, India, South Africa, and North and South America. The fee for a conversation between Australia and England is £6 for a minimum of three minutes' effective conversation and £2 for each additional minute, and to Continental countries is slightly higher. The fee for calls to Egypt, and the trans-Atlantic liners is £2 8s. per minute, and to India, South Africa, and North and South America £3 per minute. The rates to the last-mentioned countries increase slightly on calls made to the western portions. Calls to New Zealand and Java cost £1 and £3 per minute respectively.

The Australian telephone subscriber now has access to about 32,000,000 telephones, or approximately 93 per cent. of the world's total. Since the first overseas radio telephone service was established in 1930, 3,398 calls have been completed, of which 2,436 were between Australia and Great Britain, and 551 between Australia and New Zealand. During the year ended 30th June, 1933, 1,015 calls were completed, 606 originating in Australia and 409 in other countries. Of the total calls, 722 were between Australia and Great Britain, 191 between Australia and New Zealand, 36 between Australia and the United States of America, and 66 between Australia and other foreign countries.

(v) *Radio Stations (Pacific Ocean).* Radiotelegraphic stations have been erected at Suva, Ocean Island, Tulagi, and Vila under the control of the High Commissioner of the Pacific, while the New Zealand Government has erected high-power stations at Awanui (Auckland), Awarua (Bluff), and Apia (Samoa), and low-power stations at Auckland, Chatham Islands, Raratonga (Cook Islands) and Wellington.

(vi) *Radiotelegraphic Traffic.* (a) *International.* The following statement shows particulars of international traffic "via Beam" to and from United Kingdom and other places during the year ended 30th June, 1932 :—

**RADIO TRAFFIC.—INTERNATIONAL, YEAR ENDED 30th JUNE, 1932.**

Class of Traffic.	Number of Words Transmitted.			Number of Words Received.		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary .. ..	885,186	372,106	1,257,292	545,041	123,172	668,213
Deferred .. ..	481,277	197,770	679,047	379,043	70,938	449,981
Government .. ..	72,553	10,763	83,316	65,012	1,954	66,966
Press (including deferred press) ..	196,223	11,817	208,040	935,642	21,933	957,575
Daily letter and week-end telegrams (a) ..	3,147,509	762,534	3,910,043	2,023,127	240,497	2,263,624
<b>Total .. ..</b>	<b>4,782,748</b>	<b>1,354,990</b>	<b>6,137,738</b>	<b>3,947,865</b>	<b>458,494</b>	<b>4,406,359</b>

(a) Includes Christmas and New Year Greeting telegrams.

(b) *Coast Stations.* Particulars of the traffic handled by the several coast stations during the year 1931-32 are as follow :—

**RADIO TRAFFIC.—COAST STATIONS, 1931-32.**

State or Territory.	Particulars.				
	Total, Paying Words.	Messages.			
		Paying.	Service.	Weather.	Total.
	No.	No.	No.	No.	No.
New South Wales .. ..	1,085,495	62,276	1,969	2,229	66,474
Victoria .. ..	87,495	7,827	73	1,121	9,021
Queensland .. ..	164,328	14,311	2,048	2,695	19,054
South Australia .. ..	46,705	4,114	357	684	5,155
Western Australia .. ..	339,431	10,879	1,033	2,482	14,394
Tasmania .. ..	180,059	11,019	866	1,375	13,260
Northern Territory .. ..	32,826	1,578	1,376	1,439	4,393
<b>Australia .. ..</b>	<b>1,936,339</b>	<b>112,004</b>	<b>7,722</b>	<b>12,025</b>	<b>131,751</b>
<b>Papua .. ..</b>	<b>152,075</b>	<b>9,440</b>	<b>746</b>	<b>871</b>	<b>11,057</b>
<b>Grand Total .. ..</b>	<b>2,088,414</b>	<b>121,444</b>	<b>8,468</b>	<b>12,896</b>	<b>142,808</b>

(c) *Island Stations.* Particulars of the island radio traffic dealt with during the year 1931-32 are given hereunder :—

## RADIO TRAFFIC.—ISLAND STATIONS, 1931-32.

Particulars.	To Australia.	From Australia.	Inter- Island.	Ship.	Service.	Total.
Messages .. ..	13,094	9,874	17,142	1,431	..	41,541
Words .. ..	233,421	143,140	203,196	19,873	..	599,630

(vii) *Proficiency Certificates.* Proficiency certificates for commercial wireless operators are issued by the Minister to individuals who pass the specified tests. Limited certificates in radiotelegraphy and radiotelephony, amateur operators' certificates and watchers' certificates are, in addition, issued to successful candidates at the prescribed examinations.

Every station, in respect of which a licence is issued, must be operated by a person holding a certificate of proficiency.

Certificates issued under the International Radiotelegraph Convention of London (1912) ceased to be valid on 31st December, 1929, after which date it became necessary for certificate holders to exchange their certificates for equivalent certificates issued under the provisions of the Washington Convention (1927). To 30th June, 1933, 321 first class and 425 second class certificates had been issued under the new conditions.

At 30th June, 1933, 8 limited certificates in radiotelegraphy, 103 limited certificates in radiotelephony, and 1,112 amateur proficiency certificates, in addition to 114 watchers' certificates, had been issued.



## CHAPTER VII.

## TRADE.

## § 1. Introductory.

**Constitutional Powers of the Commonwealth in regard to Commerce.**—The powers vested in the Commonwealth Parliament by the Commonwealth Constitution Act with respect to oversea trade and commerce will be found in Sub-section 51 (i) and sections 86 to 95 of the Act.

## § 2. Commonwealth Legislation affecting Oversea Trade.

1. **General.**—In previous issues of the Year Book brief particulars of the various Commonwealth Acts and amendments thereof affecting oversea trade have been given in chronological order. It is not proposed to repeat this information in the present issue.

2. **Customs Tariff 1921-1931 and Tariff Proposals, 1932-1933.**—The Tariff Schedule now in operation incorporates Customs Tariff 1921 (Act No. 25 of 1921), Customs Tariff 1922 (Act No. 16 of 1922), Customs Tariff (Sugar) 1922 (Act No. 32 of 1922), Customs Tariff 1923 (Act No. 22 of 1923), Customs Tariff 1924 (Act No. 1 of 1924), Customs Tariff 1926 (Act No. 26 of 1926), Customs Tariff (No. 2) 1926 (Act No. 45 of 1926), Customs Tariff 1928 (Act No. 2 of 1928), Customs Tariff (No. 2) 1928 (Act No. 35 of 1928), Customs Tariff (No. 3) 1928 (Act No. 36 of 1928), Customs Tariff 1930 (Act No. 3 of 1930), Customs Tariff Validation (Act No. 53 of 1931), Customs Tariff (Primage Duties) Validation (Act No. 55 of 1931), Customs Tariff (Special Duties) Validation (Act No. 56 of 1931), and Tariff Proposals hereinafter referred to.

The Customs Tariff 1921-31 provided a British Preferential Tariff, an Intermediate Tariff, and a General Tariff. The rates of duty set out in the Schedule in the column headed "British Preferential Tariff" applied to goods the produce or manufacture of the United Kingdom, subject to the condition that the goods had been shipped in the United Kingdom to Australia, and had not been transhipped, or, if transhipped, then only if it were proved satisfactorily that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia (Section 8 of Act No. 25 of 1921).

The provisions of the British Preferential Tariff applied wholly or in part to any portion of the British Dominions, and the provisions of the Intermediate Tariff applied wholly or in part to any portion of the British Dominions or to any foreign country by negotiation.

The rates of duty set out in the column headed "General Tariff" applied to all goods to which the rates set out in either of the columns headed "British Preferential Tariff" or "Intermediate Tariff" did not apply (Act No. 25 of 1921, Section 10). The General Tariff applied to all importations, excepting importations the produce or manufacture of the United Kingdom shipped in the United Kingdom to Australia, and excepting also goods covered by the Customs Tariff (New Zealand Preference) Acts No. 3 of 1922, No. 36 of 1922, No. 38 of 1926, and No. 25 of 1928, the Proclamation relating to Canadian Preference, and the Customs Tariff (Papua and New Guinea Preference) Act No. 6 of 1926.

The Customs Tariff proposals which came into operation on 14th October, 1932, provided duties of customs under two headings—"British Preferential Tariff" and "General Tariff". No provision was made for an "Intermediate Tariff". The rates of duty set out in the column of the schedule headed "British Preferential Tariff" apply to goods the produce or manufacture of the United Kingdom. Provision is made that

on and after a date specified in a proclamation issued by the Governor-General goods the produce or manufacture of the British Non-Self-Governing Colonies and Protectorates, Mandated Territory of Tanganyika, and so much of the Cameroons and Togoland as is governed under British Mandate will be admitted under the "British Preferential Tariff." Excepting by mutual agreement, or until after six months' notice has been given to the Government of New Zealand, nothing in the resolution shall affect any goods or manufacture of New Zealand entering the Commonwealth. The "General Tariff" applies to all goods other than goods to which, in pursuance of the foregoing provisions, the rates specified in the "British Preferential Tariff" column apply.

On the 24th November, 1927, an amending Tariff Schedule was introduced into the House of Representatives. This Schedule embodied a reduction or abolition of some revenue producing items; a further measure of protection to some Australian industries; and an expansion and extension of preference to British trade. The principal items affected were textiles and metals and machinery. These amendments were ratified by the Customs Tariff Act, 1928 (No. 2 of 1928), and did not affect the operations of the Customs Tariff (New Zealand Preference) Act of 1922-1926, or the Customs Tariff (Papua and New Guinea Preference) Act of 1926.

The Customs Tariff 1921-1928 was amended as from the 23rd August, 1929, by increasing the customs duties payable on ale, spirits, and beverages; tobacco; silk and artificial silk; petroleum; and motor chassis. Certain excise duties were also increased.

On the 22nd November, 1929, another amending schedule to the Customs Tariff 1921-1928 and the Excise Tariff 1921-1928 came into operation. This extensive schedule provided for an increase of import duties under many items, the principal items affected being ale, spirits and beverages; tobacco; agricultural products and groceries; textiles and attire; metals and machinery; petroleum; motor bodies and motor chassis.

On the 11th December, 1929, a further amending schedule came into operation.

The Customs Tariff Act of 1930 amended the schedule so far as the imports of dressed timber n.e.i. are concerned.

Further amending schedules were introduced into the House of Representatives on the following dates, viz.:—19th June, 1930, 9th July, 1930, 25th July, 1930, 5th November, 1930, 3rd December, 1930, 26th March, 1931, and the 29th July, 1931, providing for increased duties on numerous items. Particulars relating to the Acts providing for the validation of collections of Customs duties under these proposals are given on page 228. On the 25th February, 1932, proposals were introduced providing for increased Customs duties on seven items and decreased Customs duties on fifty-six items; also for increased Excise duties on tobacco and decreased Excise duties on certain spirituous liquors. Further amending proposals were introduced on the 17th March, 1932, 3rd May, 1932, 24th May, 1932, 1st September, 1932, 13th October, 1932 (Ottawa proposals), 8th March, 1933, and 28th April, 1933.

A special customs duty of 50 per cent. of the amount of duty already imposed on certain items was introduced as from the 3rd April, 1930. An Act, No. 56 of 1931, to provide for the validation of collections of special duties of customs under Customs Tariff proposals of the 3rd April, 1930, the 19th June, 1930, and the 23rd July, 1931, was assented to on the 26th November, 1931. This special duty was removed in regard to twelve items on the 24th May, 1932. Further items were removed from the list of goods subject to this special duty by resolutions which came into operation on 2nd September, 1932, and on the 14th October, 1932. On and after the 9th March, 1933, the goods subject to special duty were—perfumery, fancy goods, sporting requisites and toys, jewellery and imitation jewellery, rubber, gum and wading boots, and cameras and magic lanterns.

By proclamation of the 4th April, 1930, the importation of 78 classes of goods into the Commonwealth was prohibited; the principal items affected being confectionery, jams and jellies, agricultural implements, platedware, matches, spirits, cigarettes, manufactured tobacco, batteries, and wireless receiving sets. This prohibition of importation was repealed in respect of 43 items on the 24th February, 1932, and in

respect of 11 items on the 18th May, 1932. The proclamation of the 18th May which prohibited the importation of the remaining 24 items was revoked on the 31st August, 1932.

3. **Primage Duty.**—From the 10th July, 1930, a primage duty of  $2\frac{1}{2}$  per cent. *ad valorem* was imposed on all goods, whether dutiable or not dutiable, in addition to the duties collected in accordance with the Customs Tariff 1921-1930, excepting bullion, specie, radium and certain special governmental and other imports.

The rate of primage duty was subsequently increased to 4 per cent. as from the 6th November, 1930.

On the 11th July, 1931, a further amendment came into operation (a) exempting certain aids to primary production and minor imports from primage duty, (b) providing for a rate of 4 per cent. *ad valorem* on a few other items, mainly aids to production, and (c) increasing the *ad valorem* rate of primage duty to 10 per cent. on all other articles imported.

On the 26th February, 1932, and the 14th October, 1932, further amendments of the lists of imports exempted from primage duty, or subject to duty at the rate of 4 per cent. came into operation.

4. **Preferential Tariff.**—(i) *British Preference.* The Commonwealth Tariff 1908 (Act No. 7, 1908) provided Preferential Tariff rates in favour of goods produced or manufactured in the United Kingdom. Subsequent amendments of the Tariff have extended the list of articles to which the preferential rates apply. The favourable treatment of the United Kingdom was again extended by Customs Tariff 1921 (No. 25 of 1921), and when this Act was incorporated in Customs Tariff 1921-1930 further concessions were granted.

On the introduction of the preferential treatment of British goods by the Commonwealth Tariff, it was required that British material or labour should represent not less than one-fourth the value of such goods. From the 1st September, 1911, it was required in regard to goods only partially manufactured in the United Kingdom, that the final process or processes of manufacture should have been performed in the United Kingdom and that the expenditure on material of British production and/or British labour should have been not less than one-fourth of the factory or works cost of the goods in their finished state. These conditions were superseded during the year 1925.

Important alterations in the conditions governing the entry of goods into the Commonwealth under the British Preferential Tariff were made during 1925. The amended conditions applied to goods invoiced to Australia after the 1st April, 1925.

Under the new conditions preference was granted in the Commonwealth as follows:—

(a) To goods which are wholly produced or wholly manufactured in the United Kingdom.

As to manufactured goods, these will be considered "wholly manufactured in the United Kingdom" only if in the raw materials used and in the finished goods no manufacturing process has been performed outside the United Kingdom which is being commercially performed in the United Kingdom.

The Minister shall determine what are to be regarded as raw materials, and in such determination may include partially manufactured Australian materials.

(b) To goods, not wholly produced or wholly manufactured in the United Kingdom in the terms of paragraph (a), provided they contain at least 75 per cent. of United Kingdom labour and/or material in their factory or works cost.

(c) Notwithstanding anything contained in the preceding paragraphs, to goods of a class or kind not commercially manufactured in Australia provided they contain at least 25 per cent. of United Kingdom labour and/or material in their factory or works cost.

- (d) It is essential in every case that the final process or processes of manufacture shall take place in the United Kingdom, and that the goods shall be consigned therefrom direct to Australia.

It was also provided that the conditions of preference set out above should apply (in addition to goods from the United Kingdom) to goods, claiming preference, shipped from any country to which the Commonwealth of Australia had extended tariff preference, whether the rates granted were those of the "British Preferential Tariff," the "Intermediate Tariff," or special rates.

At the Imperial Economic Conference held at Ottawa, Canada, during July and August, 1932, a trade agreement providing increased preference was made between the Government of the United Kingdom and the Government of the Commonwealth of Australia. Tariff proposals embodying the terms of the trade agreement came into operation on the 14th October, 1932. An Act entitled the *United Kingdom and Australia Trade Agreement Act*, No. 57 of 1932, assented to on the 2nd December, 1932, approved the provisions of the trade agreement arising out of the Conference at Ottawa. Further reference to this trade agreement will be found in the Appendix to this volume.

On the basis of the imports during 1913, the preferential provisions of the Tariff of 1908-11 covered 65 per cent. of the imports of merchandise of United Kingdom origin, the margin of preference being equal to 5 per cent. of the value of the goods. On the basis of the imports during 1931-32, the Tariff of 1921-32, extended the application of the Preferential Tariff rates to 90 per cent. of the imports from the United Kingdom, and, at the same time increased the margin of preference to 15.6 per cent. *ad valorem*. These percentages relate to all imports on which preference was granted, whether dutiable or free under the preferential provisions. With regard to imports on which preference was granted, and which were dutiable under both the Preferential and General Tariffs, the average equivalent *ad valorem* rate of duty paid in 1931-32, under the Tariff of 1921-32, on goods of United Kingdom origin was about 25 per cent., whereas the same goods under the General Tariff rates would have been called upon to pay an average rate of about 42 per cent.

An application of the Tariff of 1921-32 to the total imports of £17,824,850 (including outside packages) from the United Kingdom entered for home consumption during the year 1931-32 shows that the value of the goods of United Kingdom origin which participated in the preferential provisions of the Tariff was £16,089,471, upon which, duty to the amount of £2,354,104 was collected. Under the General Tariff, the same goods would have been required to pay £4,867,178 duty. Thus, had the conditions of the General Tariff operated on these goods, £2,513,074 additional duty would have been paid, representing an average of 15.6 per cent. on the value of the goods subject to preference. The principal classes which benefited under the Preferential Tariff and the additional duty that would have been collected under the General Tariff during the year 1931-32 were textiles, £1,104,821; metals and metal manufactures, £377,968; machines and machinery, £153,697; paper, £262,279; drugs, chemicals, etc., £140,758; optical, surgical and scientific instruments, £73,494; spirituous and alcoholic liquors, £67,688; and earthenware, glass, etc., £55,720.

From the preceding paragraph it appears that, if there had been no preference, and the General Tariff had been operating on the goods actually imported under the preferential provisions, there would have been £2,513,074 more collected in Customs duties in Australia. The consumer in Australia has, therefore, benefited approximately to this amount by preference at the expense of the Treasury, which has had, of course, to make up the loss in other ways. It is improper, however, to speak of this sum as the "value" of preference to the United Kingdom. Some of the preferential goods would have come from the United Kingdom in any case without preference. For the rest, it is not possible to assess in money the value to the United Kingdom of £1,000,000 of additional export trade.

The value of goods from countries other than the United Kingdom which were adversely affected by the preferential provisions of the Tariff amounted to £10,508,422, and the duty collected thereon was £3,381,396, or £1,570,627 more than would have been paid under the British Preferential Tariff Rates.

(ii) *Papua and New Guinea Preference.* Customs Tariff (Papua and New Guinea) Preference 1926 provides for Customs Preference on goods the produce of Papua and on goods the produce of the Territory of New Guinea. Imports into Australia, direct from the Territory of Papua or the Territory of New Guinea, of such of the goods specified in the schedule to the Act as were produced in the Territory from which they were imported, shall, notwithstanding anything contained in the Customs Tariff 1921-1932 be free of duty. The goods specified in the schedule are coffee, dried litchi fruit, various native fresh fruits, edible fungi, green ginger, coconuts, Rangoon beans and kapok and sesame seeds. Total imports from Papua during 1931-32 amounted to £154,223, imports of goods entitled to preference to £126,043, and duties remitted to £72,509. Total imports from the Territory of New Guinea during 1931-32 amounted to £419,175, imports of goods entitled to preference to £41,884, and the duties remitted to £22,080.

5. *Reciprocal Tariffs.*—(i) *General.* The Tariff Act of 1921 introduced a new feature into Australian Tariffs in the form of an Intermediate Tariff. In submitting the Schedule to Parliament, the Minister for Trade and Customs made the following statement of the object of the Intermediate Tariff:—" . . . the Minister is empowered under the Bill to enter into reciprocal arrangements with other Dominions of the British Crown. The Minister will be able, if we can arrange a satisfactory reciprocal agreement, to extend to other Dominions in individual items the British preference rate, or the intermediate rate, or, it may be, the general rate. Such agreements will be subject to the ratification of Parliament. The provision simply means that if any of our sister self-governing Dominions desires to enter into reciprocal trade relationships with us, the Minister, with the British Preferential Tariff, the Intermediate Tariff, and the General Tariff before him, may bargain with the sister Dominion and come to an agreement which, as I say, must subsequently be ratified by Parliament. . . There is a provision of a somewhat similar character in regard to other countries than the Dominions, the only difference being that the Minister is empowered to extend to countries other than the Dominions only the Intermediate Tariff; that is to say, in entering into such negotiations, he is precluded from offering to those countries what we might term, for the purposes of this Bill, the Empire rate. He is confined in his negotiations with these other countries to the Intermediate Tariff."

The trade agreement signed at the Imperial Economic Conference, 1932, held at Ottawa, Canada, on behalf of the Government of the United Kingdom and of the Government of the Commonwealth of Australia materially alters the existing conditions of preference. The agreement provides special preferential trade conditions between the Commonwealth of Australia and the United Kingdom and certain of its dependencies. The Tariff proposals introduced into the House of Representatives on the 13th October, 1932, embodied the main provisions of the Ottawa Agreement, and imposed duties of customs under two headings, viz. :—British Preferential Tariff; and General Tariff. No provision was made for an Intermediate Tariff. A review of the trade agreement signed at Ottawa will be found in the Appendix to this volume.

(ii) *Union of South Africa.* Until 1922, the Union of South Africa was the only British Dominion with which Australia had a reciprocal Tariff arrangement. The Commonwealth Customs Tariff (South African Preference) Act (No. 17 of 1906) and subsequent amending Acts provided preferential rates of duty to be applied to certain imported goods " when those goods are imported from and are the produce or manufacture of any of the British South African Colonies or Protectorates which are included within the South African Customs Union."

The Customs Tariff (South African Preference) 1906 was repealed by the Customs Tariff 1926. The repeal came into operation on the 1st July, 1926, since when South African goods imported have had no special tariff treatment.

(iii) *Dominion of New Zealand.* On the 11th April, 1922, an agreement was made between the Commonwealth of Australia and the Dominion of New Zealand whereby goods specified in the schedule attached to the agreement should be admitted at the rates of duty set out in the schedule. In addition to the goods specially mentioned in the schedule, it is provided that " all other goods being the produce or manufacture of

Australia or New Zealand shall be dutiable at the rates applicable to goods being the produce or manufacture of the United Kingdom, upon entry into New Zealand or Australia respectively." This agreement was ratified by the Commonwealth Parliament in the Customs Tariff (New Zealand Preference) 1922, and by Proclamation dated 24th August, 1922, came into operation on the 1st September, 1922. A variation of the original agreement was ratified by the Customs Tariff (New Zealand Preference) No. 38 of 1926, whilst a further amendment of certain rates of duty came into operation from the 15th June, 1928, under the Customs Tariff (New Zealand Preference) Act No. 25 of 1928.

Of the total imports of £988,719 from New Zealand during 1931-32 it is estimated that goods otherwise dutiable and amounting in value to £291,588 were admitted free under the provisions of the Preferential Tariff and the duty thus remitted was £194,625. In addition, goods valued at £43,341, which were dutiable under both general and preferential tariffs, were admitted under the preferential agreement, the duty remitted on such goods being £18,832. The total of the duties remitted on the import of New Zealand goods was thus £213,457, representing a margin of preference of 63.7 per cent. on the value of the goods entitled to preference. The principal items which benefited under the preferential provisions were undressed timber, valued at £232,714; fish, £41,618; and onions, £11,430; the amounts of duty remitted being £178,706, £11,330, and £9,218 respectively.

(iv) *Dominion of Canada.* The negotiations for a reciprocal trade treaty between Canada and Australia reached finality during September, 1925, and a reciprocal Tariff agreement between the two countries is now in operation. The commodities on which Canada grants preferential rates of duty to Australia are:—Beeswax, butter, brandy, champagne, cheese, currants, eggs, eucalyptus oil, fruits (dried, fresh, and pulped), fruits in cans, glue, honey, lard, meat (fresh and canned), onions, raisins, sugar, tallow, vegetables in tins, and wine. Australia's preferential duties apply to the following Canadian imports:—Cash registers, corsets, fish, gloves, goloshes and rubber sand boots, etc., iron and steel tubes or pipes, printing machinery, paper (printing, typewriting and writing), typewriters, and vehicles, viz., motor chassis (unassembled and assembled), and vehicle parts, including undergear, axles, springs, hoods, wheels and bodies. The Customs Tariff (Canadian Preference) Act (No. 13 of 1931), which commenced on 3rd August, 1931, ratified a further trade agreement entered into by Canada and Australia, such agreement affirming the principle of granting tariff preferences for their mutual advantage and extending preference mainly as follows, viz.:—Australian goods imported into Canada—hops, sugar, butter, wines and fruit: Canadian goods imported into Australia—fish, timber, and motor chassis.

During 1931-32 the imports from Canada amounted to £1,392,271 and imports of Canadian origin entitled to preference were valued at £1,131,112, the principal items being paper, £450,813; fish, £269,673; and timber, £238,461. During 1931-32, £424,873 duty would have been payable under the General Tariff of which the duty remitted under the preferential agreement amounted to £298,666, being equivalent to 26.4 per cent. on the total imports of Canadian origin entitled to preference. Australian exports to Canada subject to preference amounted to approximately £800,000, the principal items being dried fruits, £416,805; fruits, preserved, £147,120; meats, £28,536; sugar, £137,427; and butter, £12,446.

6. *Preferential Tariff of the United Kingdom.*—The post-war Tariff of the United Kingdom provides Preferential Customs rates on certain goods where it is shown to the satisfaction of the Commissioners of Customs and Excise that such goods have been consigned from and grown, produced, or manufactured in the British Empire. Manufactured articles generally are not entitled to the preferential rates unless 25 per cent. of their value is the result of labour within the British Empire. The principal items of interest to Australia which are accorded preferential treatment under the Tariff of the United Kingdom are:—Fruits, dried and preserved; jam; fruit pulp; preserved milk; wine; and brandy.

In the Budget submitted to the House of Commons during June, 1925, clauses dealing with increased Imperial preference on Empire-grown tobacco, preserved and dried fruits, jams and jellies, spirits, wine, sugar, and hops were proposed and adopted.

The new rates of duty took effect on 1st July, 1925, excepting that relating to hops, which came into operation on 16th August, 1925. On the basis of the quantities of dried fruits, spirits, wine, sugar, canned fruits and jams and jellies imported into the United Kingdom from Australia during the year 1931, valued at £4,500,311, as shown in the Annual Statement of the Trade of the United Kingdom, it is estimated that £1,435,300 additional duty would have been collected if the same quantities of goods had been dutiable under the rates applicable to imports from foreign countries. The main items receiving preference and the amount of rebate were sugar, £817,872; wine, £453,940; and dried fruits, £155,272.

Revised conditions of preference to goods of Australian origin exported to the United Kingdom were brought into operation by the trade agreement signed at the Ottawa Imperial Economic Conference. Increased preference was granted and the list of commodities entitled to preference was extended. Further reference to the trade agreement will be found in the Appendix to this volume.

**7. Tariff Board Act.**—This Act (No. 21 of 1921), as amended by Tariff Board Act 1923 (No. 25 of 1923), 1924 (No. 29 of 1924) and 1929 (No. 5 of 1929), provides for the appointment of a Tariff Board consisting of four members, one of whom shall be an administrative officer of the Department of Trade and Customs. This member may be appointed Chairman of the Board. Members of the Board are appointed for a term of not less than one year nor more than three years, and two members may be appointed as a Committee for making special inquiries. The purpose of the Tariff Board is to assist the Minister in the administration of matters relating to trade and customs. The more important matters which the Minister shall refer to the Board for inquiry and report include the classification of goods for duty; the determination of the value of goods for duty; any disputes arising out of the interpretation of any Customs or Excise Tariff; the necessity for new, increased or reduced duties; the necessity for granting bonuses; any proposal for the application of the British Preferential Tariff or the Intermediate Tariff to any part of the British Dominions or any foreign country; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the tariff by charging unnecessarily high prices for his goods or acting in restraint of trade. The Minister may refer to the Board for inquiry and report the following matters:—the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws of the Commonwealth, the incidence between the rates of duty on raw materials and on finished or partly finished products; and any other matter affecting the encouragement of primary and secondary industries in relation to the tariff.

Inquiries conducted by the Board relating to any revision of the Tariff, any proposal for a bounty, or any complaints that a manufacturer is taking undue advantage of the protection afforded him by the Tariff, shall be held in public, and evidence in such inquiries shall be taken in public on oath, unless any witness objects to giving any evidence in public which the Board is satisfied is of a confidential nature, when the Board may take such evidence in private. Evidence taken by the Board in connexion with any inquiry under the Customs Tariff (Industries Preservation) Act 1921–22 shall be taken in public on oath.

The latest Annual Report of the Tariff Board, issued in accordance with Section 18 (1) of the Tariff Board Act 1921–29, reviews the work of the Board during the year ended 30th June, 1932. During the year the Board furnished 103 reports to the Minister for Trade and Customs, and of these reports 55 related to matters on which public inquiries had been held. The subjects dealt with comprised:—Tariff revision and requests for bounty, 53; gazettal of goods under Customs Tariff (Industries Preservation) Act, 1; deferred duties, 1. The reports on matters which did not call for public inquiry were:—Questions arising out of existing bounties, 2; admission of goods under by-law, 1; deferred duties, 45.

The Board recommended in the majority of cases against the retention of the increased duties that have been imposed by Tariff Resolutions since November, 1929. The reasons which guided the Board to these recommendations are exemplified in the Report by a

review of the facts surrounding four typical cases, viz.—tobacco ; iron and steel pipes and tubes ; trochus and pearl buttons, and locomotives. Comments by the Board on the following matters are included in the Report :—the high cost of essential plant and raw material in Australia ; the demand for security of markets ; the high cost of landing imported goods under existing conditions ; deferred duties ; violent tariff changes, and the effects of tariff reductions on employment.

**8. Customs Tariff (Industries Preservation) Act.**—This Act (No. 28 of 1921), provides that after inquiry and report by the Tariff Board, special duties shall be collected in the following cases when the importation of the goods referred to might be detrimental to an Australian industry :—In the case of goods sold for export to Australia at a price less than the fair market price for home consumption or at a price which is less than a reasonable price, a special dumping duty shall be collected equal to the difference between the price at which the goods were sold and a fair market price. Similar provision is made for goods consigned to Australia for sale. With regard to goods exported to Australia at rates of freight less than the rates prevailing at the time of shipment, there shall be collected a dumping freight duty equal to 5 per cent. of the fair market value of the goods at the time of shipment. Special duties are also imposed in the case of goods imported from countries whose currency is depreciated. Provision is also made for the protection of the trade of the United Kingdom in the Australian market from depreciated foreign currency.

The Act provides that the Minister for Trade and Customs, after inquiry and report by the Tariff Board, may publish a notice in the *Commonwealth Government Gazette* specifying the goods upon which special rates of duty under this Act shall be charged and collected.

Since the Act came into operation approximately 300 notices have been gazetted, including about 130 which revoked previous gazettals, the majority of the notices being made under Sections 8 and 9 of the Act and relating to commodities from countries with depreciated currency to the detriment of Australian or British industries. Over 50 per cent. of the gazettals relate to goods imported from Germany. Three gazettals affect certain goods imported from all countries, while two affect goods from all countries excepting United Kingdom. Separate notices have been issued relating to goods from 17 different countries. The commodities brought under the various sections of the Act exceed 150, and cover a very wide range of goods.

Several amendments of the Act were recommended by the Tariff Board and put into effect by the Customs Tariff (Industries Preservation) Act 1922.

**9. Commerce (Trade Descriptions) Act.**—This Act (No. 16 of 1905), gives power to compel the placing of a proper description on certain prescribed goods, or on packages containing the same, being imports or exports of the Commonwealth. An amending Act passed in 1926 added brushware to the original list. The goods to which a trade description must be applied are :—(a) Articles used for food or drink by man, or used in the manufacture or preparation of articles used for food or drink by man ; (b) medicines or medicinal preparations for internal or external use ; (c) manures ; (d) apparel (including boots and shoes), and the materials from which apparel is manufactured ; (e) jewellery ; (f) agricultural seeds and plants ; and (g) brushware.

**10. Acts Passed in 1931.**—The following Acts relating to Australian production and trade were assented to during the year 1931 :—

*Wine Export Bounty Act (No. 2 of 1931).* An Act amending the *Wine Export Bounty Act 1930.*

*Customs Tariff (Canadian Preference) Act (No. 13 of 1931).* An Act ratifying the agreement with the Dominion of Canada providing for the application of Preferential Duties of Customs on goods the produce or manufacture of Canada.

*Gold Bounty Act (No. 15 of 1931).* An Act amending the *Gold Bounty Act 1930.*

*Flax and Linseed Bounties Act (No. 43 of 1931).* An Act amending the *Flax and Linseed Bounties Act 1930.*

*Wheat Bounty Act (No. 48 of 1931).* An Act providing for the payment of a bounty on the production of Wheat.



*Customs Tariff Validation Act (No. 53 of 1931).* An Act providing for the validation of collection of Customs duties under Customs Tariff proposals introduced on the 21st November, 1929, 11th December, 1929, 19th June, 1930, 9th July, 1930, 25th July, 1930, 5th November, 1930, 3rd December, 1930, 26th March, 1931, and the 29th July, 1931.

*Excise Tariff Validation Act (No. 54 of 1931).* An Act providing for the validation of collection of Excise duties under Excise Tariff proposals introduced on the 21st November, 1929, 12th March, 1930, 19th June, 1930, 9th July, 1930, 5th November, 1930, 3rd December, 1930, 26th March, 1931, and 29th July, 1931.

*Customs Tariff (Primage Duties) Validation Act (No. 55 of 1931).* An Act providing for the validation of collections of Primage duties under Customs Tariff proposals introduced on the 9th July, 1930, 5th November, 1930, 10th July, 1931, and 14th October, 1931.

*Customs Tariff (Special Duties) Validation Act (No. 56 of 1931).* An Act providing for the validation of collections of special duties under Customs Tariff proposals introduced on the 3rd April, 1930, 19th June, 1930, and 23rd July, 1931.

11. **Acts Passed in 1932.**—The following Acts relating to Australian production and trade were assented to during the year 1932 :—

*Spirits Act (No. 12 of 1932).* An Act amending the *Spirits Act 1906–1923*.

*Cotton Industries Bounty Act (No. 17 of 1932).* An Act to amend the *Cotton Industries Bounty Act 1930*.

*United Kingdom and Australia Trade Agreement Act (No. 57 of 1932).* An Act to approve the provisions of an agreement made between His Majesty's Government in the United Kingdom and His Majesty's Government in the Commonwealth of Australia and arising out of the Conference of Representatives of the Governments of the British Dominions held at Ottawa in July and August, 1932.

*Wheat Bounty (Claims) Act (No. 71 of 1932).* An Act relating to the making of claims under the *Wheat Bounty Act 1931*.

*Sugar Agreement Act (No. 74 of 1932).* An Act to approve an agreement made between His Majesty's Government of the Commonwealth of Australia and His Majesty's Government of the State of Queensland, and for other purposes.

### § 3. Trade Representatives.

1. **Oversea.**—The Commonwealth of Australia is represented in the United Kingdom by the Right Hon. S. M. Bruce, C.H., M.C., M.P., Minister without Portfolio, with headquarters at Australia House, London. Oversea trade matters affecting Australia come within the scope of the duties attaching to the office.

The Commonwealth has a Trade Representative in France, with headquarters at Paris. This official is attached to Australia House, London.

The first appointment of a representative for Australia in the United States of America was made in 1918. The office of the Commissioner-General for Australia in the United States is vacant at present date. The Official Secretary, with headquarters at New York, attends to Australian affairs, including oversea trade matters.

In April, 1929, a Commercial Representative for Australia was appointed in the Dominion of Canada. The functions of this officer are to develop the sales of Australian products in Canada and generally to represent Australia in a commercial capacity. The present occupant of the office was appointed on 1st March, 1930, under the designation of Australian Trade Commissioner in Canada, with headquarters at Toronto.

Early in 1921 a Commonwealth Trade Commissioner was appointed in China, with offices at Shanghai and Hong Kong. This office was terminated in 1923. In 1922, an Australian Trade Representative in the East was appointed, with headquarters at Singapore, but the appointment was terminated in March, 1925.

2. *In Australia.*—Trade Commissioners representing the undermentioned countries are located in Australia, viz. :—The United Kingdom, Canada, New Zealand, United States of America, and France. His Majesty's Senior Trade Commissioner for the United Kingdom has his headquarters in Sydney, and a Trade Commissioner is located at Melbourne, where the Canadian Government Trade Commissioner and the American Trade Commissioner have their headquarters. The New Zealand Tourist and Trade Commissioner and the Trade Commissioner for France are located in Sydney. Trade matters affecting other oversea countries are generally attended to by their Consular representatives.

#### § 4. Method of Recording Imports and Exports.

1. *Value of Imports.*—The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged *ad valorem*. The value of goods is taken to be 10 per cent. in advance of their fair market value in the principal markets of the country whence the goods were exported. Acting upon a recommendation of the Tariff Board the section of the Customs Act relating to the valuation of imports was amended, and Section 154 (1) of the Customs Act 1901-1931 now provides that "when any duty is imposed according to value, the value for duty shall be the sum of the following :—

- (a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or
- (ii) the current domestic value of the goods, whichever is the higher ;
- (b) all charges payable or ordinarily payable for placing the goods free on board at the port of export ; and
- (c) ten per centum of the amounts specified under paragraphs (a) and (b) of this sub-section.

"Current domestic value" is defined as "the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country."

Imports are recorded in British currency values, and Section 157 of the Customs Act provides that when the invoice value of imported goods is shown in any currency other than British currency, the equivalent value in British currency shall be ascertained according to a fair rate of exchange to be declared in case of doubt by the Minister. Under this section it was the practice of the Department of Trade and Customs, until the 8th December, 1920, to convert on the basis of the mint par of exchange. Since the date mentioned, in consequence of a ruling of the High Court, all conversions have been based on the commercial rates of exchange.

The term "British currency values" is not exactly synonymous with "English sterling", since imports already expressed in terms of £. s. d. are regarded for duty purposes as being expressed in British currency values. This exception to the general rule is chiefly important in the case of imports from New Zealand and South Africa, when their currencies are not at par with English currency. In all the tables in this volume no correction has been made on this account, even when for the sake of brevity the term "sterling" has been used as a contraction for "British currency values".

2. *Value of Exports.*—Prior to the 1st July, 1929, the recorded value of all goods exported was taken as representing the value in the principal markets of the Commonwealth in the ordinary commercial acceptance of the term. Owing to the inflated values arbitrarily allotted in recent years to commodities which are subject to governmental control or subsidy, some change in the practice of valuation of exports of such commodities became desirable. Accordingly a new basis was adopted as from

the 1st July, 1929, for the statistical valuation of exports of sugar, butter and goods on which bounty or rebate is paid which will show for—(a) *Sugar*—the value f.o.b. at which sold to overseas buyers, or an f.o.b. value equal to the London market price if shipped on consignment; (b) *Butter*—the current market value less the amount paid as export bonus; (c) *Goods on which bounty or rebate is paid on export*—the value in the principal markets of the Commonwealth in the ordinary commercial acceptance of the term, less the value of any bounty or rebate.

From the 1st July, 1930, the basis adopted for the value of exports of wool provides that the export value of wool sold in Australia for export will be the actual price paid plus the cost of services incurred in placing the wool on board ship, and for wool shipped on consignment the f.o.b. equivalent of ruling Australian prices is to be adopted.

During the year 1930–31 exports of merchandise generally were recorded in Australian currency and exports of bullion and specie in British currency, but from the 1st July, 1931, exports of bullion and specie are recorded in Australian currency also. The exports of bullion and specie during 1930–31 have been re-valued and are shown in the following tables in Australian currency. The comparison of export values for 1930–31 and 1931–32, with those for previous years is complicated by the varying value of the Australian £ in relation to sterling. In all export tables a footnote has been inserted showing the estimated British currency value, and in the summary tables the total oversea trade is shown in British currency.

3. **Customs Area.**—The Customs Area, to which all oversea trade statistics issued by this Bureau apply, is the whole area of the Commonwealth of Australia, comprising the States of New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania and Northern Territory (contiguous territory). Other (non-contiguous) territories and mandated areas are treated as outside countries, and trade transactions between the Commonwealth and these non-contiguous territories are part of the oversea trade of the Commonwealth. Such transactions are shown separately, i.e., the trade of the Commonwealth with each particular country is separately recorded and tabulated.

4. **Statistical Classification of Imports and Exports.**—The Oversea Trade Bulletin No. 29 for the year 1931–32, from which the summary figures in this Year Book are extracted, was compiled according to a revised classification which came into operation on 1st July, 1922. In order to meet the demand for more detailed information relating to imports and exports the statistical classification was revised and considerably extended during the early part of 1922. The new classification is divided into 21 classes, with 1,660 separate import items and 523 export items.

5. **The Trade Year.**—From the 1st July, 1914, the statistics relating to Oversea Trade are shown according to the fiscal year (July to June). Prior to that date the figures related to the calendar year. A table is given in § 14 showing the total value of imports and exports in the calendar years 1928 to 1932 inclusive.

6. **Records of Past Years.**—In the years preceding federation, each State independently recorded its trade, and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. The figures in the following table for years prior to federation have been carefully compiled and may be taken as representative of the oversea trade of Australia as a whole. On the introduction of the Customs Act 1901, the methods of recording values were made uniform throughout the States, but it was not until September, 1903, that a fundamental defect in the system of recording transhipped goods was remedied. Prior to 1905 the value of ships imported or exported was not included in the returns of trade.

7. **Ships' Stores.**—Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and omitted from the return of exports. A table showing the value of these stores shipped each year since 1906 is given later in this Chapter.

### § 5. Oversea Trade.

1. **Total Oversea Trade.**—(i) *Including Gold.* The following table shows the total trade (including gold) of the Commonwealth with oversea countries from the earliest date for which records are available. To economize space, the period 1826 to 1920-21 has been divided into quinquennia, and the figures shown represent the annual averages for the quinquennia specified. The figures for individual years were published in earlier issues of the Year Book. (*See note to table below.*)

#### TOTAL OVERSEA TRADE.—AUSTRALIA. (INCLUDING GOLD.)

Period. (a)	Recorded Value. (c)			Value per Inhabitant.			Percentage of Exports on Imports.
	Imports.	Exports.	Total.	Imports.	Exports.	Total.	
	£1,000.	£1,000.	£1,000.	£ s. d.	£ s. d.	£ s. d.	%
1826 to 30	638	153	791	10 12 5	2 10 11	13 3 4	23.9
1831 „ 35	1,144	613	1,757	11 19 10	6 8 6	18 8 4	53.6
1836 „ 40	2,283	1,112	3,395	14 15 9	7 4 1	21 19 10	48.7
1841 „ 45	1,906	1,378	3,284	9 0 5	6 10 5	15 10 10	72.3
1846 „ 50	2,379	2,264	4,643	6 18 10	6 12 2	13 11 0	95.2
1851 „ 55	11,931	11,414	23,345	19 12 5	18 15 4	38 7 9	95.7
1856 „ 60	18,816	16,019	34,835	18 6 1	15 11 8	33 17 9	85.1
1861 „ 65	20,132	18,699	38,831	15 17 1	14 14 9	30 11 10	93.0
1866 „ 70	18,691	19,417	38,108	12 7 4	12 16 11	25 4 3	103.9
1871 „ 75	21,982	24,247	46,229	12 7 2	13 13 6	26 0 8	110.3
1876 „ 80	24,622	23,772	48,394	11 19 7	11 10 9	23 10 4	96.6
1881 „ 85	34,895	28,055	62,950	14 4 3	11 9 5	25 13 8	80.4
1886 „ 90	34,675	26,579	61,254	11 16 11	9 1 0	20 17 11	76.6
1891 „ 95	27,335	33,683	61,018	8 5 2	10 2 5	18 7 7	123.2
1896 „ 1900	33,763	41,094	74,857	9 5 4	11 5 6	20 10 10	121.7
1901 „ 05	39,258	51,237	90,495	10 1 10	13 2 9	23 4 7	130.5
1906 „ 10	51,508	69,336	120,844	12 4 8	16 9 11	28 14 7	134.6
1911 „ 15-16	73,411	74,504	147,915	15 7 4	15 12 10	31 0 2	101.5
1916-17 to 1920-21	100,735	115,066	215,801	19 7 9	22 2 10	41 10 7	114.2
1921-22 ..	103,066	127,847	230,913	18 14 1	23 4 1	41 18 2	124.0
1922-23 ..	131,758	117,870	249,628	23 7 8	20 18 4	44 6 0	89.5
1923-24 ..	140,618	119,487	260,105	24 9 1	20 15 8	45 4 9	85.0
1924-25 ..	157,143	161,311	318,454	26 15 1	27 9 3	54 4 4	102.7
1925-26 ..	151,638	146,209	297,847	25 6 2	24 8 0	49 14 2	96.4
1926-27 ..	164,717	144,084	308,801	26 19 2	23 11 7	50 10 9	87.5
1927-28 ..	147,945	141,206	289,151	23 14 7	22 12 11	46 7 6	95.4
1928-29 ..	143,648	141,633	285,281	22 13 4	22 7 0	45 0 4	98.6
1929-30 ..	131,081	125,127	256,208	20 8 8	19 10 2	39 18 10	95.5
1930-31 (d)	60,960	104,355	..	9 8 3	16 2 3	..	..
(e)	60,960	88,904	149,864	9 8 3	13 14 7	23 2 10	145.8
1931-32 (d)	44,713	107,967	..	6 17 0	16 10 10	..	..
(e)	44,713	85,003	129,716	6 17 0	13 0 6	19 17 6	190.1

(a) The figures given for the years 1826 to 1920-21 represent the annual averages for the quinquennial periods. The trade of the individual years will be found in Official Year Book No. 21 and earlier issues. From 1914-15 onwards the particulars relate to fiscal years. (b) Prior to 1906, ships' stores were included in the general exports. For value of these goods shipped each year since 1906 see later table, § 9.

(c) For actual values for recent years, showing merchandise and bullion and specie separately, see § 8, 5 and 6. (d) Recorded values. Imports, British currency; Exports, Australian currency. (e) British currency values.

The graphs which accompany this Chapter show the movement of Australian oversea trade from 1855 onwards. In previous issues of the Year Book the fluctuations in this trade have been considered in some detail up to the high imports during the year 1920-21. The enhanced price of commodities and the peculiar conditions affecting Australian trade were responsible for the high value of imports during that year, and in making comparisons with imports during pre-war years, these factors should be taken into consideration.

In 1921-22 the consequent reaction took place and both imports and exports declined. The following year 1922-23, showed an increase in imports, whilst exports decreased still further. In 1923-24, imports had advanced, but exports were practically the same value as in the previous year. The heavy importation of goods continued during 1924-25 and the value of the oversea trade amounted to £318,454,736, of which £157,143,296 represented imports and £161,311,440 exports. These figures, so far as total trade and exports are concerned, are the highest recorded, while the figure of imports has been exceeded on two occasions only. Imports, however, included an exceptionally large quantity of bullion and specie valued at £10,542,807.

During 1925-26 both imports and exports declined, the total oversea trade showing a decrease of £20 millions compared with the previous year. Exports declined over fifteen millions, due to the reduced quantities of wheat and butter exported. In 1926-27 imports were greater than in any previous year, and exceeded those in 1925-26 by £13,078,416. Exports decreased in value, due mainly to smaller exports of sugar, wool, butter, beef, and zinc.

In 1927-28 the total trade was £19,650,280 less than in 1926-27 and was less also than in the two years preceding 1926-27, due to a decline of £16,771,624 in imports and of £2,878,656 in exports when compared with the corresponding figures for 1926-27. Imports of merchandise showed a large decrease of £17,191,219, owing to reduced imports of motor cars; cotton, linen and silk piece goods; petroleum and rubber. A noticeable feature was the increase in exports of merchandise, which was attributable to increased exports of wool, butter, sugar, apples, beef, hides and zinc. The value of imports per head was less than that in any year since 1922-23.

During 1928-29 the total value of oversea trade was £3,870,441 less than that for the previous year, and was responsible for the lowest rate per head of population experienced during the last five years. Imports declined by £4,297,089, but exports increased by £426,648. Substantial reductions were experienced in imports of textiles, machinery, rubber, leather, timber and apparel. There was a large decrease in exports of wool and apples, but exports of wheat, sugar, flour, butter, and beef were in excess of those for the previous year.

In the year 1929-30 the decline in trade continued, the total being £29,072,002 less than the previous year. Imports decreased by £12,566,561, and exports by £16,505,441. The value of trade per head of population was the lowest experienced since the war year of 1917-18. There was a heavy fall in imports of textiles, apparel, yarns, metal manufactures, machines and machinery, the result of increased Customs duties and the efforts to improve the national balance of payments overseas. Exports of wool declined by £25,000,000, mainly due to a fall in prices, and wheat by £10,000,000, but these decreases were partly offset by shipments overseas of gold specie amounting to £27,000,000, the excess of imports for the year being £5,954,172.

In 1930-31 the total trade further declined to £149,863,775 (British currency values), a reduction of 42 per cent. on the previous year, and the rate per head of population recorded was the lowest since the year 1903. Imports were £70,121,687 less in value than

in 1929-30, a fall of 54 per cent. The heavy decrease in value of imports was common to all classes of goods as the result of increased Customs Duties, prohibition of imports of certain items, and the prevailing financial depression. The heaviest decline occurred in the timber, metals, apparel, spirituous liquors and mineral groups. The recorded value of exports in Australian currency was £104,354,638 and the estimated British currency value £88,904,142. The decrease in the exports valued in British currency amounted to £36,223,006, or 29 per cent. less than in 1929-30, due mainly to a further fall in the prices of wool and metals, and decreased, though still large, exports of gold. Exports of wheat and butter, however, were in excess of the previous year.

A further decline in oversea trade was recorded in 1931-32, the total trade showing a decrease of £20,148,276 (British currency values) on the figures for the previous year. Imports declined £16,246,765, and exports £3,901,511, the latter mainly on account of lower exports of gold. Per head of population imports and total trade showed the lowest figures since federation, while exports per head of population were the lowest since the year 1903, with the exception of the year 1914-15. The economic and tariff conditions affecting importation continued during 1931-32, and the decrease in the value of imports was common to all classes of goods. Compared with the previous year a marked decline in imports of the following goods was recorded:—spirituous liquors; unmanufactured tobacco; petroleum spirit; machinery and manufactures of metal; stationery; jewellery and fancy goods. In quantity and value exports of wool (including scoured and tops); wheat; butter; frozen lamb and mutton; wine; sugar and flour were greater than during the previous year. Frozen beef was exported in greater quantity with lower value. Dried fruits declined in quantity and value.

(ii) *Excluding Gold.*—In recent years there have been large gold movements of an exceptional nature, which have been included in the previous table. The fluctuations in merchandise trade (including silver as merchandise) are shown more clearly in the following table, from which all gold movements have been excluded.

## OVERSEA TRADE—AUSTRALIA.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

*British Currency Values.*

Period.	Imports excluding Gold.	Exports excluding Gold.	Total Trade excluding Gold.	Value per Inhabitant.			Percentage of Exports on Imports.
				Imports.	Exports.	Total Trade.	
	£1,000 Stg.	£1,000 Stg.	£1,000 Stg.	£ s. d.	£ s. d.	£ s. d.	%
1927-28	146,934	138,397	285,331	23 11 4	22 3 11	45 15 3	94.2
1928-29	143,300	138,648	281,948	22 12 3	21 17 7	44 9 10	96.8
1929-30	130,788	98,259	229,047	20 7 10	15 6 4	35 14 2	75.1
1930-31	60,586	76,631	137,217	9 7 1	11 16 8	21 3 9	126.5
1931-32	44,059	75,472	119,531	6 15 0	11 11 4	18 6 4	171.3

2. *Balance of Trade.*—The foregoing tables show the percentage of exports on imports for quinquennial periods from 1826 to 1920-21 and for each financial year since 1920-21. Prior to the quinquennial period 1891-95 the balance of trade, with two exceptions, due to temporary dislocations, had been on the side of imports, while from that period to 1919-20 the position was reversed. During the subsequent decennial period to 1929-30, there was an excess of imports, though exports were in excess in the years 1921-22 and 1924-25. In 1930-31 and 1931-32, however, exports were again largely in excess of imports.

In recent years imports and exports of gold for monetary purposes have made the interpretation of the foregoing tables more difficult. In the following table, the balance of commodity trade, including the value of gold currently produced in Australia, has been separated from the monetary movement of gold.

With the exception of reductions in the export totals for the years 1924-25 to 1928-29, in accordance with the amended basis adopted for the valuation of exports of sugar and butter, the total balance of trade is the same as that previously published as being the recorded excess of exports in each year.

### COMMODITY BALANCE OF TRADE AND MONETARY MOVEMENT OF GOLD.

*British Currency Values.*

Year.	A.	B.	C.	D.	E.	F.	G.
	Total Imports other than Gold. (Specie, Bullion and in Matte).	Total Exports, other than Gold. (Specie, Bullion and in Matte).	Gold produced in Australia.	Total of Merchandise exports and Gold. Production.	Commodity Balance of Trade.	Net Exports of Gold (Specie, Bullion and in Matte) in excess of Production.	Total Balance.
				B+C	D-A	F	E+F
	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000
1910 ..	59.0	69.8	11.6	81.4	22.4	- 7.9	14.5
1911 ..	65.4	67.5	10.5	78.0	12.6	- 0.1	12.5
1912 ..	76.8	66.8	9.9	76.7	- 0.1	1.1	1.0
1913 ..	78.4	75.1	9.4	84.5	6.1	- 7.3	- 1.2
1914 (a) ..	39.0	36.5	4.4	40.9	1.9	- 3.7	- 1.8
1914-15 ..	64.0	58.0	8.5	66.5	2.5	- 6.3	- 3.8
1915-16 ..	77.2	64.2	7.7	71.9	- 5.3	2.3	- 3.0
1916-17 ..	76.0	86.3	6.6	92.9	16.9	4.8	21.7
1917-18 ..	60.8	75.0	5.8	80.8	20.0	- 0.9	19.1
1918-19 ..	95.0	106.8	5.4	112.2	17.2	- 5.6	11.6
1919-20 ..	98.9	144.3	5.4	149.7	50.8	0.1	50.9
1920-21 ..	163.8	126.8	4.7	131.5	-32.3	0.6	-31.7
1921-22 ..	103.0	124.3	3.8	128.1	25.1	- 0.3	24.8
1922-23 ..	131.7	115.6	3.3	118.9	-12.8	- 1.1	-13.9
1923-24 ..	140.6	116.7	3.2	119.9	-20.7	- 0.4	-21.1
1924-25 ..	146.7	160.4	2.8	163.2	16.5	-12.3	4.2
1925-26 ..	151.3	141.9	2.3	144.2	- 7.1	1.7	- 5.4
1926-27 ..	164.1	132.7	2.2	134.9	-29.2	8.6	-20.6
1927-28 ..	146.9	138.4	2.1	140.5	- 6.4	- 0.3	- 6.7
1928-29 ..	143.3	138.6	1.9	140.5	- 2.8	0.8	- 2.0
1929-30 ..	130.8	98.2	1.9	100.1	-30.7	24.7	- 6.0
1930-31 ..	60.6	76.6	2.2	78.8	18.2	9.7	27.9
1931-32 ..	44.1	75.5	3.6	79.1	35.0	5.3	40.3

(a) First six months only.

3. **Balance of Payments.**—The balance of visible trade, including the net movement of precious metals, does not present a complete picture of Australia's international transactions during each year. Allowance must also be made for unrecorded imports and exports, for services rendered and received, and for international capital and interest transactions. The values of some of these items are known, and some of those remaining can be estimated with a sufficient measure of accuracy. For many items, however, it is difficult to make even a rough guess. An investigation is at present being conducted into the values of these "invisible" items in the balance of payments, the results of which will be published in detail at a later date. Meanwhile tentative estimates of the balance of payments for the years 1928-29 to 1932-33 inclusive will be found in the Appendix.

### § 6. Direction of Oversea Trade.

1. Imports according to Country of Origin.—The following table shows the value (in British currency) of the imports into Australia of commodities stated to be the produce or manufacture of the undermentioned countries during the past five years :—

#### AUSTRALIAN IMPORTS.—COUNTRIES OF ORIGIN.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

*British Currency Values.*

Country of Origin.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
United Kingdom .. ..	62,694,584	57,022,757	54,248,339	23,283,784	17,408,811
<b>British Possessions—</b>					
Canada .. ..	3,278,095	4,871,529	3,502,421	1,377,217	1,392,271
Ceylon .. ..	1,931,770	1,966,171	2,125,141	1,061,478	598,177
India .. ..	5,559,036	6,052,506	5,021,449	3,778,492	2,775,356
Malaya (British) .. ..	1,804,602	1,133,963	812,513	274,894	276,654
New Zealand .. ..	2,951,259	2,067,143	1,512,774	774,970	702,686
<b>Pacific Islands—</b>					
Nauru .. ..	342,169	516,544	442,516	229,316	217,512
Papua .. ..	131,195	117,894	105,098	134,145	138,072
Territory of New Guinea ..	310,088	320,134	223,412	55,714	68,483
Other Islands .. ..	845,198	848,640	719,391	288,756	228,768
South African Union .. ..	652,283	585,879	302,879	89,823	56,598
Other British Possessions ..	904,745	639,831	867,623	424,887	352,196
<b>Total, British Possessions</b>	<b>18,710,440</b>	<b>19,121,234</b>	<b>15,635,217</b>	<b>8,489,692</b>	<b>6,807,673</b>
<b>Total, British Countries ..</b>	<b>81,405,024</b>	<b>76,143,991</b>	<b>69,883,556</b>	<b>31,773,476</b>	<b>24,216,484</b>
<b>Foreign Countries—</b>					
Belgium .. ..	936,804	910,797	985,005	312, 23	282,131
China .. ..	685,518	633,217	568,664	347,641	314,778
France .. ..	3,876,942	3,700,279	3,070,645	1,498,306	1,145,829
Germany .. ..	4,621,469	4,545,501	4,341,678	1,997,056	1,427,079
Italy .. ..	1,362,061	1,449,629	1,350,849	658,308	453,891
Japan .. ..	4,282,614	4,707,299	4,181,643	2,379,558	2,396,734
Netherlands .. ..	972,633	1,145,378	1,134,921	631,634	361,405
Netherlands East Indies ..	5,703,345	7,091,619	6,282,653	4,011,194	2,648,948
Norway .. ..	925,867	890,414	655,523	214,440	188,300
Pacific Islands .. ..	173,802	220,174	268,409	148,271	73,942
Philippine Islands .. ..	208,547	163,030	174,518	39,957	35,947
Sweden .. ..	1,873,877	1,480,808	1,671,786	822,563	693,433
Switzerland .. ..	2,117,676	1,969,079	1,566,721	926,144	471,054
United States of America ..	35,005,215	35,307,343	39,313,535	11,399,005	7,037,417
Other Foreign Countries ..	2,782,535	2,941,046	2,802,069	1,631,293	1,098,211
<b>Total, Foreign Countries ..</b>	<b>65,528,905</b>	<b>67,155,613</b>	<b>59,368,619</b>	<b>27,017,393</b>	<b>18,629,099</b>
<b>Total .. ..</b>	<b>146,933,929</b>	<b>143,299,604</b>	<b>129,252,175</b> (a)	<b>58,790,869</b> (a)	<b>42,845,583</b> (a)

(a) Excluding Outside Packages 1929-30, £1,535,385, 1930-31, £1,794,965, and 1931-32, £1,213,561.

2. Percentage of Imports from Various Countries.—In view of the fluctuations in the total values of imports, it is somewhat difficult to ascertain from the preceding table the relative importance of the various countries in the import trade of Australia in successive years. A better idea of the proportion of imports supplied by each country during each year may be obtained from the following table of percentages :—



**AUSTRALIAN IMPORTS.—PERCENTAGES FROM COUNTRIES OF ORIGIN.**  
(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country of Origin.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom .. ..	42.67	39.80	41.97	39.60	40.63
British Possessions—					
Canada .. ..	2.23	3.40	2.72	2.34	3.25
Ceylon .. ..	1.31	1.37	1.64	1.81	1.38
India .. ..	3.78	4.22	3.88	6.43	6.48
Malaya (British) .. ..	1.23	0.79	0.63	0.47	0.65
New Zealand .. ..	2.01	1.44	1.17	1.32	1.64
Pacific Islands—					
Nauru .. ..	0.23	0.36	0.34	0.39	0.52
Papua .. ..	0.09	0.08	0.08	0.23	0.32
Territory of New Guinea .. ..	0.21	0.22	0.18	0.09	0.16
Other Islands .. ..	0.58	0.59	0.56	0.49	0.53
South African Union .. ..	0.44	0.42	0.23	0.15	0.13
Other British Possessions .. ..	0.62	0.45	0.67	0.72	0.83
Total, British Possessions .. ..	12.73	13.34	12.10	14.44	15.89
Total, British Countries .. ..	55.40	53.14	54.07	54.04	56.52
Foreign Countries—					
Belgium .. ..	0.64	0.64	0.76	0.53	0.66
China .. ..	0.47	0.44	0.44	0.59	0.73
France .. ..	2.64	2.59	2.38	2.55	2.67
Germany .. ..	3.15	3.17	3.36	3.40	3.33
Italy .. ..	0.93	1.01	1.05	1.12	1.06
Japan .. ..	2.92	3.28	3.24	4.05	5.59
Netherlands .. ..	0.66	0.80	0.88	1.07	0.84
Netherlands East Indies .. ..	3.88	4.96	4.85	6.83	6.18
Norway .. ..	0.63	0.62	0.51	0.36	0.44
Pacific Islands .. ..	0.12	0.15	0.21	0.25	0.17
Philippine Islands .. ..	0.14	0.11	0.13	0.07	0.08
Sweden .. ..	1.27	1.03	1.29	1.40	1.62
Switzerland .. ..	1.44	1.37	1.21	1.58	1.10
United States of America .. ..	23.82	24.64	23.45	19.39	16.43
Other Foreign Countries .. ..	1.89	2.05	2.17	2.77	2.58
Total, Foreign Countries .. ..	44.60	46.86	45.93	45.96	43.48
Total .. ..	100	100	100	100	100

The percentage of imports from the United Kingdom during the period above showed alternate decreases and increases in successive years, with a gradual downward tendency, the percentage for 1931-32 marking an improvement compared with the previous year. The United Kingdom supplied 40.63 per cent. of the imports during 1931-32, compared with 42.67 per cent. in 1927-28, a decline of 2.04 per cent. On the other hand, the proportion of imports from British Possessions increased from 12.73 per cent. in 1927-28 to 15.89 per cent. in 1931-32, owing to the fact that the imports of bags and sacks from India were sustained at a higher level than imports in the aggregate. There were, in addition, small increases in the imports from Canada, Malaya (British) Papua and New Guinea. The proportion of imports supplied by foreign countries declined from 46.86 per cent. in 1928-29 to 43.48 per cent. in 1931-32, a decrease of 3.38 per cent. During the last two years some marked changes occurred in the proportion

of imports from foreign countries, e.g., Japan supplied 5.59 per cent. during 1931-32, as compared with 3.24 per cent. during 1929-30; the proportion of imports from Netherlands East Indies was 4.85 per cent. in 1929-30 and rose, owing to a greater share in the tea trade, to 6.83 per cent. in the following year, but declined to 6.18 per cent. in 1931-32. The share of imports supplied by the United States of America declined from 23.45 per cent. in 1929-30 to 19.39 per cent. in 1930-31 with a further decline in the following year to 16.43 per cent.

For 1931-32 the percentage of imports from the United States declined 2.06 per cent. compared with the previous year, while Japan's share increased by 1.54 per cent., and represented an actual increase in value.

Imports from British countries fell from £31,773,476 in 1930-31 to £24,216,484 in 1931-32, a drop of 24 per cent., whereas the imports from foreign countries declined from £27,017,393 to £18,629,099, a decrease of 31 per cent.

3. **Direction of Exports.**—The following table shows the value, in Australian currency, of commodity exports to the principal countries during the five years 1927-28 to 1931-32 inclusive :—

### EXPORTS FROM AUSTRALIA TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

*Australian Currency Values.*

Country.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
United Kingdom .. ..	52,433,168	50,046,841	43,357,463	39,600,153	47,823,652
British Possessions—					
Canada .. ..	708,010	737,710	743,742	958,730	1,033,782
Ceylon .. ..	495,525	458,919	507,191	373,736	313,243
Fiji .. ..	482,382	478,211	456,733	363,988	268,704
Hong Kong .. ..	481,212	597,666	336,315	379,880	737,280
India .. ..	1,879,296	8,112,847	3,233,919	2,227,457	748,835
Malaya (British) .. ..	2,004,724	1,968,084	1,389,321	818,917	916,462
Mauritius .. ..	87,086	129,752	72,178	52,572	102,757
New Zealand .. ..	3,854,635	3,729,147	3,624,395	2,975,848	2,603,716
Papua .. ..	203,618	173,042	170,692	136,245	128,351
South African Union .. ..	2,847,194	1,953,313	1,050,107	496,455	370,211
Other British Possessions .. ..	1,231,174	1,524,921	1,222,534	1,189,650	1,667,990
Total, British Possessions .. ..	14,274,856	19,863,612	12,807,127	9,973,578	8,891,331
Total, British Countries .. ..	66,708,024	69,910,453	56,164,590	49,573,731	56,714,983
Foreign Countries—					
Belgium .. ..	9,320,508	9,044,614	5,536,231	4,195,186	3,579,143
Chile and Peru .. ..	356,013	428,431	207,014	115,253	208,238
China .. ..	308,429	1,113,854	295,157	3,348,518	4,942,859
Egypt .. ..	3,044,753	3,912,074	1,792,223	1,470,555	1,049,466
France .. ..	15,166,747	15,141,155	10,134,578	6,747,944	4,636,602
Germany .. ..	12,026,949	9,730,330	6,246,960	5,310,575	3,922,479
Italy .. ..	5,138,034	5,169,404	2,761,293	3,494,885	3,631,915
Japan .. ..	12,571,282	11,518,986	6,555,003	9,500,499	11,659,012
Netherlands .. ..	492,466	653,535	451,603	387,611	509,712
Netherlands East Indies .. ..	1,932,194	2,030,023	2,080,722	1,412,525	1,333,959
Norway .. ..	13,646	5,026	21,891	48,076	54,240
Pacific Islands .. ..	448,218	506,367	358,955	243,213	244,262
Philippine Islands .. ..	456,989	430,993	390,750	329,239	315,366
Russia .. ..	2,204,469	1,574,603	343,023	4,141	190,143
Spain .. ..	3,573	22,395	82,899	115,276	360,119
Sweden .. ..	430,266	413,938	135,405	145,523	252,488
United States of America .. ..	6,953,566	5,831,794	4,233,772	2,930,407	1,990,262
Other Foreign Countries .. ..	820,566	1,210,459	466,540	590,069	479,223
Total, Foreign Countries .. ..	71,688,668	68,737,981	42,094,019	40,389,495	39,359,488
Total .. ..	138,396,692	138,648,434	98,258,609	89,963,226	96,074,471

There was an increase in the value of Australian exports to the United Kingdom during the year 1927-28, a slight decrease in 1928-29, heavy declines in 1929-30 and 1930-31, and a substantial increase in 1931-32. Reference to the percentage table hereunder will show, that the proportion of Australian exports shipped to the United Kingdom increased from 36.10 per cent. in 1928-29 to 44.13 in 1929-30, remained practically stationary in 1930-31, and increased to 49.79 per cent. in 1931-32, a rise of 5.8 per cent. over the proportion in the previous year. Although the value of exports to British countries declined from £66,708,024 in 1927-28 to £56,714,983 in 1931-32, the proportion of total exports shipped to British countries in the latter year was actually over 10 per cent. greater than in the former year. The increase in the percentage of exports to British countries was due to the higher proportion taken by the United Kingdom, the share of exports to British Possessions showing a steady decline during the period under review. The proportion of exports to Canada remained constant during the past two years, but the proportion taken by New Zealand declined from 3.31 per cent. to 2.70 per cent. Exports to foreign countries declined from £71,688,668 in 1927-28, or 51.80 per cent. of the total exports, to £39,359,488, or 40.97 per cent. of the total. On a percentage basis an increased proportion of exports is shown for China and Japan. There has been a steady decline in the proportions taken by Belgium, Egypt, France, Germany and the United States of America, mainly due to reduced exports of and lower prices for wheat and wool.

In these comparisons, however, the value of merchandise exports is in Australian currency, so that the 1931-32 merchandise values are inflated by approximately 27 per cent. in terms of sterling, as compared with the values for the year 1929-30. The estimated value in sterling of exports of merchandise, excluding all bullion and specie, shows that exports to British countries declined from £56,164,590 in 1929-30 to £44,657,000 in 1931-32, and exports to foreign countries decreased from £42,094,019 in 1929-30 to £33,992,000 in 1931-32.

4. **Percentage of Exports to Various Countries.**—In consequence of the fluctuations in the total values of exports, the relative importance of various countries as markets for Australian produce is shown more clearly by the following table of percentages:—

#### EXPORTS FROM AUSTRALIA.—PERCENTAGES TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom .. ..	37.89	36.10	44.13	44.02	49.79
British Possessions—					
Canada .. ..	0.51	0.53	0.76	1.07	1.07
Ceylon .. ..	0.36	0.33	0.52	0.42	0.33
Fiji .. ..	0.35	0.34	0.46	0.40	0.28
Hong Kong .. ..	0.35	0.43	0.34	0.42	0.77
India .. ..	1.35	5.85	3.29	2.48	0.78
Malaya (British) .. ..	1.45	1.42	1.42	0.90	0.95
Mauritius .. ..	0.06	0.09	0.07	0.06	0.10
New Zealand .. ..	2.78	2.69	3.69	3.31	2.70
Papua .. ..	0.15	0.12	0.17	0.15	0.13
South African Union .. ..	2.06	1.42	1.07	0.55	0.39
Other British Possessions .. ..	0.89	1.10	1.24	1.32	1.74
Total, British Possessions .. ..	10.31	14.32	13.03	11.08	9.24
Total, British Countries .. ..	48.20	50.42	57.16	55.10	59.03

EXPORTS FROM AUSTRALIA—PERCENTAGES TO VARIOUS  
COUNTRIES—*continued.*

Country.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	per cent.	per cent.	per cent.	per cent.	per cent.
Foreign Countries—					
Belgium .. .. .	6.73	6.52	5.63	4.66	3.72
Chile and Peru .. .. .	0.26	0.31	0.21	0.13	0.23
China .. .. .	0.22	0.80	0.30	3.72	5.14
Egypt .. .. .	2.20	2.82	1.82	1.63	1.09
France .. .. .	10.97	10.92	10.31	7.50	4.83
Germany .. .. .	8.69	7.02	6.36	5.90	4.08
Italy .. .. .	3.72	3.73	2.82	3.88	3.78
Japan .. .. .	9.08	8.31	6.67	10.56	12.13
Netherlands .. .. .	0.36	0.47	0.46	0.43	0.53
Netherlands East Indies .. .. .	1.40	1.46	2.12	1.57	1.39
Norway .. .. .	0.01	0.00	0.02	0.05	0.06
Pacific Islands .. .. .	0.32	0.36	0.37	0.27	0.25
Philippine Islands .. .. .	0.33	0.32	0.40	0.36	0.33
Russia .. .. .	1.59	1.14	0.35	0.05	0.20
Spain .. .. .	0.00	0.02	0.08	0.13	0.37
Sweden .. .. .	0.31	0.30	0.14	0.16	0.26
United States of America .. .. .	5.02	4.21	4.31	3.25	2.07
Other Foreign Countries .. .. .	0.59	0.87	0.47	0.65	0.51
Total, Foreign Countries .. .. .	51.80	49.58	42.84	44.90	40.97
Total .. .. .	100	100	100	100	100

5. Balance of Trade with Principal Countries.—In the following table a comparison is made in British currency values of the total Australian trade in merchandise (excluding bullion and specie) with principal countries during the years 1930-31 and 1931-32 :—

BALANCE OF AUSTRALIAN TRADE WITH PRINCIPAL COUNTRIES.  
(EXCLUDING BULLION AND SPECIE.)

*British Currency Values.*

Country.	Imports from—		Exports to—		Excess of Exports.	
	1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.
	£1,000.	£1,000.	£1,000	£1,000.	£1,000	£1,000.
United Kingdom .. .. .	23,276	17,405	33,490	37,155	10,214	19,750
Canada .. .. .	1,377	1,392	817	814	— 560	— 578
India .. .. .	3,788	2,775	1,412	359	— 2,376	— 2,416
New Zealand .. .. .	775	702	2,532	2,050	1,757	1,348
Other British Countries .. .. .	3,020	1,926	3,238	3,536	218	1,610
Total, British Countries .. .. .	32,236	24,200	41,489	43,914	9,253	19,714
Belgium .. .. .	312	282	3,573	2,818	3,261	2,536
China .. .. .	348	315	2,819	3,858	2,471	3,543
France .. .. .	1,498	1,146	5,748	3,650	4,250	2,504
Germany .. .. .	1,997	1,427	4,522	3,088	2,525	1,661
Italy .. .. .	658	454	2,977	2,859	2,319	2,405
Japan .. .. .	2,380	2,397	8,093	9,179	5,713	6,782
Netherlands East Indies .. .. .	4,011	2,649	1,203	1,050	— 2,808	— 1,599
United States of America .. .. .	11,398	7,037	2,496	1,538	— 8,902	— 5,499
Other Foreign Countries .. .. .	4,414	2,922	2,937	2,885	— 1,477	— 37
Total, Foreign Countries .. .. .	27,016	18,629	34,368	30,925	7,352	12,296

The balance of trade (British currency values) in merchandise with British countries changed from an adverse figure of £14,573,000 in 1929-30 to a favourable one of £9,253,000 in 1930-31 mainly owing to an increase of approximately £21 millions in the balance with the United Kingdom. Trade with foreign countries showed a net improvement of £24 millions on the figures for 1929-30 consequent on a decline of £17 millions in the previous year's unfavourable balance with the United States of America coupled with an increase of £3 millions in the excess of exports to Japan and China. The trade position continued favourable during 1931-32, exports of merchandise being in excess of imports. A favourable balance of £20 millions with British countries was recorded, as compared with £9 millions during the previous year. The excess of exports to foreign countries was £12 millions in 1931-32 as against £7 millions in 1930-31. The increase in exports to and the decline in imports from the United Kingdom were responsible for the improved position with British countries. In 1931-32 there were unfavourable balances with Canada, of £578,000; India, £2,416,000; Netherlands East Indies, £1,599,000; United States of America, £5,499,000, and other foreign countries, £37,000. The figures quoted exclude exports of bullion and specie amounting to £10,164,000 in 1931-32 as compared with £13,047,000 in 1930-31. Exports of bullion and specie to United Kingdom in 1931-32 were £7,986,000 (£11,565,000 in the previous year); to India, £396,000 (£1,275,000); other British countries, £61,000 (£171,000), and to foreign countries, £1,722,000 (£36,000).

The balance of trade with single countries is of little significance, since in the first place, there is still a fair proportion of Australian produce distributed through the United Kingdom either immediately, by transhipment or re-sale, or ultimately, by incorporation in manufactures. Further, in very many cases international balances are equated directly by services or indirectly by exchange of goods between several countries.

**6. Principal Imports and Exports.—Countries.**—The total value of imports from, and exports to, each of the more important countries during 1931-32, together with brief particulars of the principal commodities interchanged with such countries, is given hereunder. The values of imports are shown, as recorded, in British currency, and exports which are recorded in Australian currency are shown in that currency value. Should further details be required, reference may be made to the annual publication "Oversea Trade Bulletin, No. 29," issued by this Bureau, which gives details of the trade with Australia of 23 of the principal countries of the world during the past five years. This publication furnishes information regarding the country of origin of each statistical item of import for the years 1930-31 and 1931-32, showing the value and (where available) the quantity imported from each country, and the value of each item imported into each of the States. The publication referred to also gives information as to the country to which each item of exports was shipped during these years.

**United Kingdom.** *Total Imports of United Kingdom Origin*, £17,409,556. The two outstanding classes of goods imported were—Machines, machinery, and manufactures of metal, £4,206,065; and apparel, textiles, yarns, etc., £7,359,720. Imports of the following goods also contributed largely to the total:—Paper and stationery; drugs and chemicals; whisky; rubber and rubber manufactures; optical, surgical, and scientific instruments; chinaware and earthenware; glass and glassware; ammunition and explosives; paints and varnishes; and fancy goods.

*Total Exports to United Kingdom*, £57,335,857. Of this total, £56,369,689 represented Australian produce. The principal items of export were—Gold specie, £2,440,686; gold bar, dust, etc., £7,071,519; wool, £11,841,995; butter, £8,960,851; wheat, £7,328,610; and sugar, £2,360,970. Other commodities which bulked largely were—Pig lead; frozen meats; hides and skins; dried and fresh fruits; flour; wine; copper; and zinc.

**United States of America.** *Total Imports of United States Origin*, £7,037,751. The following were the more important items of import:—Petroleum and shale spirit, etc., £1,700,942; metal manufactures and machinery, £1,294,220; unmanufactured tobacco,

£561,512; lubricating (mineral) oil, £487,952; apparel and textiles, £430,851; films, £320,759; kerosene; paper and stationery; sulphur; sausage casings; and undressed timber.

*Total Exports to United States*, £4,096,410. Of this total, £3,883,069 represented Australian produce. The principal exports were—Gold specie, £2,103,017; hides and skins, £655,710; wool, £542,242; sausage casings; pearlshell; and ores. The value of the exports of the above commodities represents 88 per cent. of the total exports to the United States.

**France.** *Total Imports of French Origin*, £1,145,829. Chief imports were—Piece goods of silk or containing silk, £316,823; argol, £160,847; velvets, velveteens, plushes, etc., £79,219; trimmings for attire, £52,505; machinery; paper and stationery; perfumery and toilet preparations; gums and resins; lace for attire; gloves; jewellery and fancy goods; fertilizers; and olive oil.

*Total Exports to France*, £4,636,602. Of this total, £4,620,622 was Australian produce. Principal exports were—Wool, £4,004,983; sheep skins, £537,995; wheat; barley; horns; and frozen mutton.

**Japan.** *Total Imports of Japanese Origin*, £2,396,734. Principal imports—Piece goods of silk or containing silk, £1,179,757; raw silk, £301,408; cotton and linen piece goods, £302,232; apparel and attire; crockery and other household ware; glass and glassware; oils; and fancy goods.

*Total Exports to Japan*, £11,659,012. Of this total, £11,651,966 was Australian produce. Chief exports—Wool, £7,513,760; wheat, £3,383,868; tallow; zinc; pig lead; trochus shell; beef; milk and cream; and infants' and invalids' food.

**Germany.** *Total Imports of German Origin*, £1,427,079. Principal imports—Machinery and metal manufactures, £362,035; apparel and textiles, £331,373; drugs, chemicals and fertilizers, £254,998; paper and stationery, £108,434; jewellery and fancy goods, £66,216; rubber and manufactures; earthenware; china; glass; bags and baskets.

*Total Exports to Germany*, £3,922,479. Of this total, £3,882,575 was the produce of Australia. Chief exports were—Wool, £3,223,083; pig lead, £210,392; hides and skins, £127,880; apples, £112,313; sausage casings; wheat; tallow; and eucalyptus oil.

**Belgium.** *Total Imports of Belgium Origin*, £282,131. Principal imports were—Apparel and textiles, £127,579; glass and glassware, £39,996; machinery and metals, £37,303; paper and stationery, £36,048; arms; jewellery; and drugs and chemicals.

*Total Exports to Belgium*, £3,579,143. Of this total, £3,576,441 was the produce of Australia. Chief items were—Wool, £2,284,555; barley, £316,819; wheat, £295,184; zinc bars, blocks, etc., £208,690; beef, £192,834; pig lead, £126,027; fodders; tallow; and concentrates.

**India.** *Total Imports of Produce or Manufacture of India*, £2,775,356. Bags and sacks valued at £1,928,627 represent 69 per cent. of the total imports. The other principal items were—Hessians, £323,446; linseed, £114,561; hides and skins, £88,259; and tea, £85,345; gums and resins; coffee and chicory; rice; mats, matting of coir; paraffin wax; spices; and jute.

*Total Exports to India*, £959,497. Of this total, £945,486 represented Australian produce. The chief exports were—Gold specie, £210,662; silver, £283,471; horses, £30,237; tallow, £76,719; wool, £64,638; milk and cream, £50,332; zinc bars, blocks, etc.; jams and jellies; fruits preserved in liquid; machines and machinery; and coal.

**Netherlands East Indies.** *Total Imports of Netherlands East Indies Origin*, £2,648,948. The principal imports were—Petroleum spirit, including benzine, etc., £850,160; tea, £755,561; residual oil, £311,349; crude petroleum, £283,861; kapok, £89,764; kerosene, £88,226; flax and hemp; coffee and chicory; and crude rubber.

*Total Exports to Netherlands East Indies*, £1,333,959. Of this total, £1,316,251 was the produce of Australia. Chief exports were—Flour, £529,294; butter, £418,976; preserved milk and cream, £101,757; bacon and hams, £36,195; leather, £34,168; fresh fruits, £29,905; coal, £27,607; biscuits, £26,398; fruit juices and syrups; metal manufactures and machinery; and drugs.

**New Zealand.** *Total Imports of New Zealand Origin*, £988,719. The principal items were—Gold bar, dust, £286,007; timber, £232,811; hides and skins, £109,340; wool, £77,908; fish, £41,566; flax and hemp, £24,858; horses; linseed and other seeds; and grain and pulse.

*Total Exports to New Zealand*, £2,603,848. Of this total, £2,225,083 was Australian produce. The chief items were—Machinery and metal manufactures, £388,500; fruits dried or fresh, £327,674; drugs, etc., £244,809; apparel and attire, £231,521; optical and scientific instruments, £165,050; tobacco, etc., £156,968; coal, £119,995; timber, £109,391; paper and stationery, £103,808; grain and pulse, prepared; confectionery; fruits preserved in liquid; wine; horses; seeds; bark, tanning; paints; rubber and leather; and arms.

**Italy.** *Total Imports of Italian Origin*, £453,891. Chief imports were—Silk piece goods, £105,155; apparel, £76,713; flax and hemp, £36,781; drugs and chemicals, £36,626; metals, metal manufactures and machinery, £21,846; paper and stationery, £28,944; essential oils; edible nuts; and olive oil.

*Total Exports to Italy*, £3,631,915. Of this total, £3,631,915 was Australian produce. Chief exports were—Wheat, £1,312,689; wool, £2,174,633; hides and skins, £58,401; tallow, £47,476; and beef, £13,466.

**Canada.** *Total Imports of Canadian Origin*, £1,392,271. The principal imports were—Printing paper, £444,432; timber, £303,295; fish, preserved in tins, £282,221; machinery and metal manufactures, £94,945; surgical, optical, and scientific instruments, £89,596; apparel and textiles, £58,416; and drugs and chemicals, £19,247.

*Total Exports to Canada*, £1,033,782. Of this total, £1,028,620 was Australian produce. Chief items were—Fruits, dried, £416,805; wool, £179,151; fruits, preserved or pulped, £147,120; sugar (cane), £137,427; gelatine and glue, £14,628; fruits, fresh, £22,194; mutton and lamb, £13,217; and wine, £21,248.

**Malaya (British).** *Total Imports of Malayan (British) Origin*, £276,654. Principal items were—Rubber and manufactures thereof, £163,347; spices, £56,984; sago and tapioca, £30,989; tin, ingots, £7,788; vegetable substances and fibres; and bamboo and cane.

*Total Exports to Malaya (British)*, £916,462. Of this total, £882,774 was the produce of Australia. Chief exports were—Flour, £277,781; milk and cream, £260,280; butter, £74,436; frozen meats, £67,411; metals, metal manufactures and machinery, £33,535; fruits, fresh and preserved, £27,130; soap; bacon and hams; leather; sheep; coal; and lard and refined animal fats.

**Pacific Islands (British and Foreign).** *Total Imports of Produce of the Pacific Islands*, £1,093,620. Chief items were—Gold bullion, £365,943; rock phosphates, £363,789; copra, £136,657; edible nuts, £121,931; wood and wicker; hides and skins; timber; fruits, fresh; molasses; and cocoa beans.

*Total Exports to Pacific Islands*, £1,314,010. Of this amount, £972,354 was the produce of Australia. The exports to these islands cover a very wide range of commodities. The outstanding groups were—Foodstuffs of vegetable origin, £296,181; machines, machinery and metal manufactures, £203,899; foodstuffs of animal origin, £139,026; tobacco, cigars and cigarettes, £131,651; apparel, textiles, etc., £79,646; and coal and coke, £71,116. The chief individual items were—Flour; tobacco; coal; biscuits; meats, preserved in tins; timber; bran, pollard and sharps; tea; oils; stationery; soap; rice; and ale, beer, etc.

**South African Union.** *Total Imports of Produce of South African Union*, £56,598. Principal items were—Jewellery and fancy goods, £26,155; fish, £18,255; feathers, £3,952; tobacco; and vegetable substances.

*Total Exports to South African Union*, £370,211. Of this total, £358,979 was the produce of Australia. Chief exports were—Timber, £83,187; wheat, £72,858; tallow, £50,716; metals and machinery, £40,787; apparel and textiles, £18,356; glue and gelatine, £15,599; and soap, £8,370.

**Egypt.** *Total Imports of Egyptian Origin*, £15,751. Chief items were—Gums and resins, £5,935; asphalt, bitumen and natural pitch, £4,029; and paper manufactures, £4,103.

*Total Exports to Egypt*, £1,049,466. Principal items were—Flour, £632,278; wheat, £263,791; frozen meat, £68,665; and butter, £68,389.

**Ceylon.** *Total Imports of Ceylon Origin*, £598,177. The chief items were—Tea, £505,490; rubber, £58,506; nuts, £2,397; fibres; cocoa beans; and yarns.

*Total Exports to Ceylon*, £376,768. Of this total £375,854 was Australian produce. The principal exports were—Flour, £127,137; undressed timber, £65,952; gold specie, £63,525; frozen meats; milk and cream; butter; and fresh fruits.

**Sweden.** *Total Imports of Swedish Origin*, £693,433. Chief items were—Paper, £282,478; wood pulp, £176,646; dairy implements and machinery, £99,228; other machines and machinery, £23,808; vacuum cleaners, £18,220; and timber, £15,093.

*Total Exports to Sweden*, £252,488. Chief items were—Wheat, £102,531; wool, greasy, £88,382; hides and skins, cattle, £20,429; and fruits, fresh, £27,763.

**Russia.** *Total Imports of Russian Origin*, £53,600. Chief items were—Fish, preserved in tins; dressed furs; bristles, horsehair drafts; and hides and skins.

*Total Exports to Russia*, £190,143. Chief items—Wheat, £158,222; and flour, £31,827.

**Switzerland.** *Total Imports of Swiss Origin*, £471,054. Chief items were—Piece goods of silk, £111,430; metal manufactures and machinery, £38,687; apparel and attire, £103,134; clocks and watches, £33,860; handkerchiefs; manufactured fibres and yarns; and drugs and chemicals.

*Total Exports to Switzerland*, £13,293. Chief items were—Butter, £5,993; timepieces and parts, £3,263; and apparel and textiles, £2,700.

**Netherlands.** *Total Imports of Netherlands Origin*, £361,405. Principal items were—Electrical machinery and appliances, £108,366; paper, £14,779; drugs and chemicals, £21,835; caramel, caramel paste, cocoa butter, etc., £6,128; piece goods; and glass and glassware.

*Total Exports to Netherlands*, £509,712. Chief exports were—Wheat, £337,432; apples, fresh, £40,821; wool, £36,651; and flour, £7,879.

**China.** *Total Imports of Chinese Origin*, £314,778. The principal items were—Apparel and textiles, £135,852; nuts, edible, £32,505; tea, £17,656; ginger, £16,819; tung oil, £16,176; rice, £13,790; bristles, £10,558; and vegetable substances, £8,599.

*Total Exports to China*, £4,942,859. Of this total, £4,924,014 was Australian produce. Principal items were—Wheat, £4,506,287; milk and cream, £88,084; butter, £65,349; flour, £49,207; silver, bar, etc., £42,289; tallow, £38,560; leather, £25,822; timber, £23,723; and infants' and invalids' food, £14,349.

**Norway.** *Total Imports of Norwegian Origin*, £188,300. Principal items were—Paper, £102,357; preserved fish, £51,651; metal manufactures, £14,816; timber, £12,642.

*Total Exports to Norway*, £54,240. Chief items were—Wheat, £48,996; and cattle hides, £2,814.

**Philippine Islands.**—*Total Imports of Philippine Islands Origin*, £35,947. Chief items were—Hemp, £33,857; tobacco and cigars; and timber.

*Total Exports to Philippine Islands*, £315,366. Principal items were—Flour, £95,488; coal, £65,970; frozen meats, £62,038; butter, £49,765; milk and cream, £16,433; and bacon and ham, £12,240.



**Hong Kong.** *Total Imports of Hong Kong Origin*, £6,156. Chief items were—Ginger, £2,266; wicker, bamboo and cane, £2,000.

*Total Exports to Hong Kong*, £737,280. Chief items were—Flour, £382,168; leather, £97,162; sandalwood, £38,068; meats, £37,697; butter, £33,552; bêche-de-mer, £26,920; pig lead, £20,530; coal; tallow; and fruits, fresh and dried.

**Spain.** *Total Imports of Spanish Origin*, £99,560. Chief items were—Corks, etc., £35,085; edible nuts, £27,697; chemicals, etc., £11,179; liquorice; wine; and paints and varnishes.

*Total Exports to Spain*, £360,119. Chief items were—Wheat, £262,140; wool, greasy, £89,868; and hides and skins, £6,224.

7. **Imports—States.**—For statistical purposes, imports into Australia are recorded, for the most part, at the port of discharge from the oversea ship, and are credited to the State in which that port is situated, although in some cases the goods are transhipped on a through bill of lading and are then recorded at the port to which they are consigned. The figures given in the following table, therefore, do not represent the value of the imported goods which are ultimately consumed in the several States. Large amounts of imported goods recorded in New South Wales and Victoria are distributed thence by direct re-sale and otherwise to the other States, but the extent of this distributed trade cannot be ascertained. The total imports for the last five years are given hereunder.

#### IMPORTS.(a)—STATES.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
New South Wales ..	65,081,801	63,491,751	57,127,427	26,311,411	18,797,584
Victoria ..	47,911,131	46,005,650	42,301,093	20,305,201	16,043,817
Queensland ..	11,760,214	11,594,348	11,540,083	5,556,434	3,746,131
South Australia ..	12,509,300	11,305,866	9,360,275	3,916,258	2,821,538
Western Australia ..	9,011,294	9,453,169	8,879,010	4,060,261	2,728,963
Tasmania ..	1,640,817	1,765,052	1,834,530	790,817	564,951
Northern Territory ..	30,413	32,045	38,902	19,251	9,884
Total ..	147,944,970	143,647,881	131,081,320	60,959,633 (a)	44,712,868 (a)

(a) British currency value.

8. **Exports—States.**—The following table gives the value of exports shipped from each State during the last five years. It must be noted that the value of goods transferred from one State to another for shipment to oversea countries is shown as an export from the State from which the goods were finally dispatched.

#### EXPORTS(a).—STATES.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£A	£A	£A	£A	£A
New South Wales ..	51,882,915	49,288,900	35,761,807	31,624,592	34,608,871
Victoria ..	31,728,558	39,437,225	36,499,943	26,569,700	27,587,320
Queensland ..	21,855,054	23,251,716	18,821,824	16,922,406	16,106,067
South Australia ..	18,030,143	14,811,542	15,009,496	10,253,176	12,247,406
Western Australia ..	16,252,679	15,301,307	16,004,694	16,629,725	14,816,420
Tasmania ..	3,434,456	2,706,042	2,970,913	2,340,083	2,580,435
Northern Territory ..	29,265	53,720	58,471	14,956	20,624
Total ..	143,213,070	144,850,452	125,127,148	104,354,638 (a)	107,967,143 (a)

(a) Recorded values. Australian currency. The estimated value of exports in British currency is as follows, viz.:—1930-31, £88,904,000; 1931-32, New South Wales, £27,248,000; Victoria, £21,720,000; Queensland, £12,680,000; South Australia, £9,642,000; Western Australia, £11,665,000; Tasmania, £2,032,000; Northern Territory, £16,000; Total, £85,003,000.

9. *Trade of Principal Ports.*—The next table gives the value of imports received at, and exports dispatched from, the principal ports of Australia for the years 1930-31 and 1931-32.

## OVERSEA TRADE.—PRINCIPAL PORTS.

Port.	1930-31.			1931-32.		
	Imports (British Currency Values.)	Exports (Australian Currency Values.)	Total (British Currency Values.) (a)	Imports (British Currency Values.)	Exports (Australian Currency Values.)	Total (British Currency Values.) (a)
<i>New South Wales.</i>	£ (Stg.)	£ (Aust.)	£ (Stg.)	£ (Stg.)	£ (Aust.)	£ (Stg.)
Sydney ..	25,596,681	30,546,889	51,647,520	18,447,287	33,353,627	44,706,629
Newcastle ..	665,028	980,417	1,501,144	325,026	1,117,218	1,204,613
Other Ports ..	49,702	97,286	132,669	25,271	138,026	133,938
<b>Total ..</b>	<b>26,311,411</b>	<b>31,624,592</b>	<b>53,281,333</b>	<b>18,797,584</b>	<b>34,608,871</b>	<b>46,045,180</b>
<i>Victoria.</i>						
Melbourne ..	19,841,286	23,830,177	40,070,585	15,711,978	24,088,784	34,677,100
Geelong ..	380,414	1,915,937	2,006,842	237,555	2,832,767	2,467,795
Other Ports ..	83,501	822,586	782,638	94,284	665,769	618,445
<b>Total ..</b>	<b>20,305,201</b>	<b>26,569,700</b>	<b>42,860,065</b>	<b>16,043,817</b>	<b>27,587,320</b>	<b>37,763,340</b>
<i>Queensland.</i>						
Brisbane ..	4,650,181	12,878,057	15,729,802	3,097,351	11,102,844	11,838,631
Rockhampton ..	139,757	518,006	585,426	93,490	531,075	511,516
Townsville ..	481,978	1,301,913	1,602,086	325,048	1,810,557	1,750,501
Other Ports ..	284,518	2,224,430	2,198,320	230,332	2,661,591	2,325,804
<b>Total ..</b>	<b>5,556,434</b>	<b>16,922,406</b>	<b>20,115,724</b>	<b>3,746,131</b>	<b>16,106,067</b>	<b>16,426,452</b>
<i>South Australia.</i>						
Port Adelaide (in- cluding Adelaide)	3,571,621	6,202,428	8,855,096	2,472,241	7,499,627	8,376,704
Port Pirie ..	301,190	2,630,265	2,541,754	310,035	1,603,771	1,572,685
Wallaroo ..	24,618	750,302	663,755	24,067	1,390,829	1,119,068
Other Ports ..	18,829	670,181	589,716	15,195	1,753,179	1,395,475
<b>Total ..</b>	<b>3,916,258</b>	<b>10,253,176</b>	<b>12,650,321</b>	<b>2,821,538</b>	<b>12,247,406</b>	<b>12,463,932</b>
<i>Western Australia.</i>						
Fremantle (Perth)	3,322,887	13,918,727	15,659,670	2,602,843	11,997,070	12,018,147
Bunbury ..	35,309	959,668	853,500	38,959	923,096	765,713
Other Ports ..	202,065	1,751,330	1,695,208	87,161	1,896,254	1,530,084
<b>Total ..</b>	<b>4,060,261</b>	<b>16,629,725</b>	<b>18,238,378</b>	<b>2,728,963</b>	<b>14,816,420</b>	<b>14,393,944</b>
<i>Tasmania.</i>						
Hobart ..	486,775	1,908,485	2,031,673	308,035	2,192,220	2,033,972
Launceston ..	268,610	341,631	545,157	241,268	338,278	507,594
Other Ports ..	35,432	89,967	108,259	15,648	49,937	54,964
<b>Total ..</b>	<b>790,817</b>	<b>2,340,083</b>	<b>2,685,089</b>	<b>564,951</b>	<b>2,580,435</b>	<b>2,596,530</b>
<i>Northern Territory.</i>						
Darwin ..	19,251	14,956	32,865	9,884	20,624	26,121
<b>Grand Total</b>	<b>60,959,633</b>	<b>104,354,638</b>	<b>149,863,775</b>	<b>44,712,868</b>	<b>107,967,143</b>	<b>129,715,499</b>

(a) For the purposes of calculating this column, the exports have first been converted to British currency values.

### § 7. Trade with Eastern Countries.

1. **Principal Articles Exported.**—The following table shows the value of exports of Australian and other produce from Australia to Eastern countries during the last five years. The countries concerned in this trade are China, India and Ceylon, Japan, Netherlands East Indies, Timor (Portuguese), Philippine Islands, Malaya (British), Hong Kong, British Borneo, Korea, French Indo-China, and Siam. During the years 1930-31 and 1931-32 the export trade with Eastern countries showed an improvement in value over the year 1929-30 owing to increased shipments of wheat to China and of wheat and wool to Japan. Other commodities showing increased trade during 1931-32 were coal, leather and scrap iron and steel. Exports of butter and flour declined during 1930-31, but improved in the following year. Increased trade in milk and cream was recorded in 1931-32 with Malaya (British), but exports of this commodity to Japan and Netherlands East Indies declined.

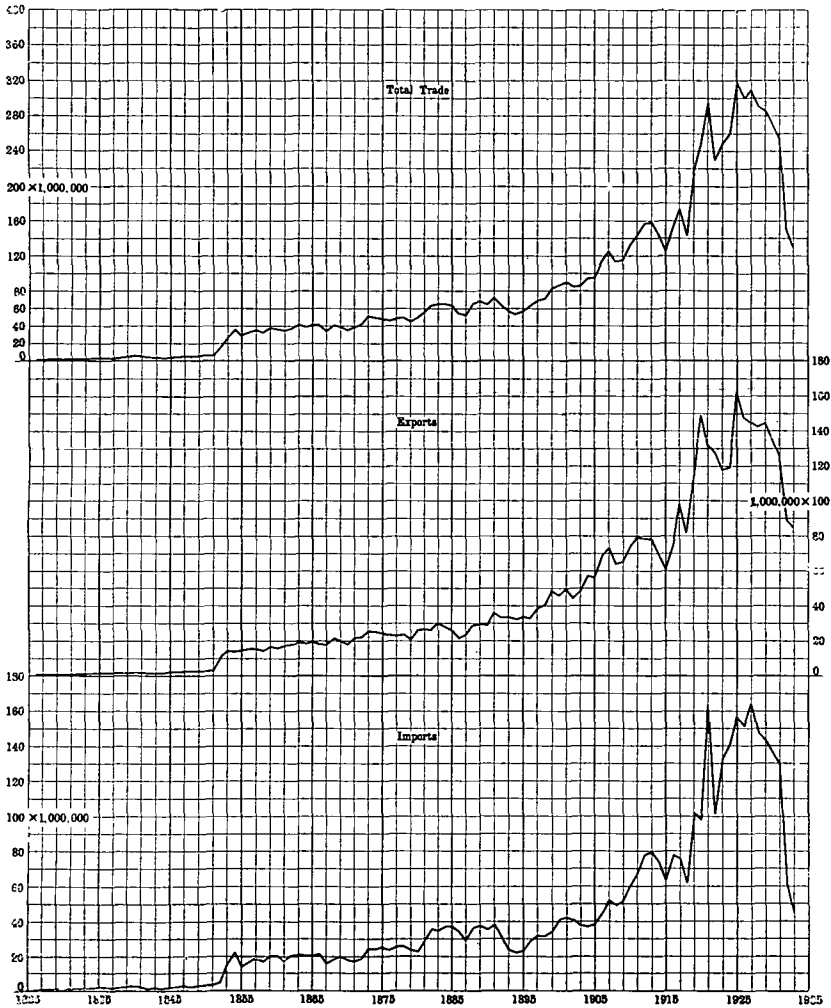
#### TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.

Article.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£(A)	£(A)	£(A)	£(A)	£(A)
Biscuits .. .. .	88,138	79,107	60,411	41,253	32,587
Butter .. .. .	845,177	883,372	836,253	609,734	679,977
Cheese .. .. .	10,708	10,629	12,163	9,963	13,295
Coal .. .. .	180,628	67,006	27,089	82,540	148,086
Grain and pulse—					
Wheat .. .. .	1,415,714	8,756,564	2,645,318	6,540,867	7,929,220
Flour .. .. .	1,832,721	1,978,031	1,969,516	1,193,999	1,534,452
Other (prepared and unprepared) .. .	21,054	56,385	77,226	33,913	18,839
Hay, chaff, and compressed fodder .. .	18,797	16,131	20,362	11,648	13,618
Horses .. .. .	111,698	118,296	124,522	95,857	93,089
Iron Ore .. .. .			92,831	27,492	8,347
Iron and steel (scrap) .. .. .	12,004	18,307	26,597	1,879	35,579
Jams and Jellies .. .. .	55,914	46,493	33,296	29,306	33,648
Lead, Pig .. .. .	112,963	123,953	92,323	70,180	51,745
Leather .. .. .	300,983	327,355	166,551	124,168	182,788
Meats .. .. .	486,228	568,795	560,698	418,749	336,913
Milk and cream .. .. .	1,131,146	1,283,929	920,558	567,170	569,011
Pearl shell and trochus shell .. .. .	95,950	93,327	66,612	45,925	32,544
Sandalwood .. .. .	194,616	278,238	89,427	72,969	62,914
Skins, hoofs, horns, bones, sinews, tallow .. .. .	547,190	578,041	540,389	430,935	435,220
Sulphate of ammonia .. .. .	3,105				
Timber (undressed) .. .. .	239,806	151,712	139,116	165,488	95,210
Wool .. .. .	10,371,126	8,806,489	4,512,341	6,528,817	7,590,943
Other merchandise .. .. .	1,348,213	1,338,164	1,046,900	769,058	829,226
Total merchandise .. .. .	19,423,879	25,582,324	14,060,499	17,871,910	20,727,251
Specie, and gold and silver bullion .. .	1,669,388	1,845,964	3,516,873	1,477,543	600,501
Total Exports .. .. .	21,093,267	27,428,288	17,577,372	19,349,453	21,327,752

(a) Australian currency value. The estimated British currency value is, 1930-31, £16,485,000; 1931-32, £16,791,000.

2. **Destination of Exports of Merchandise.**—The next table shows the destination of the merchandise exported to Eastern countries during the last five years.

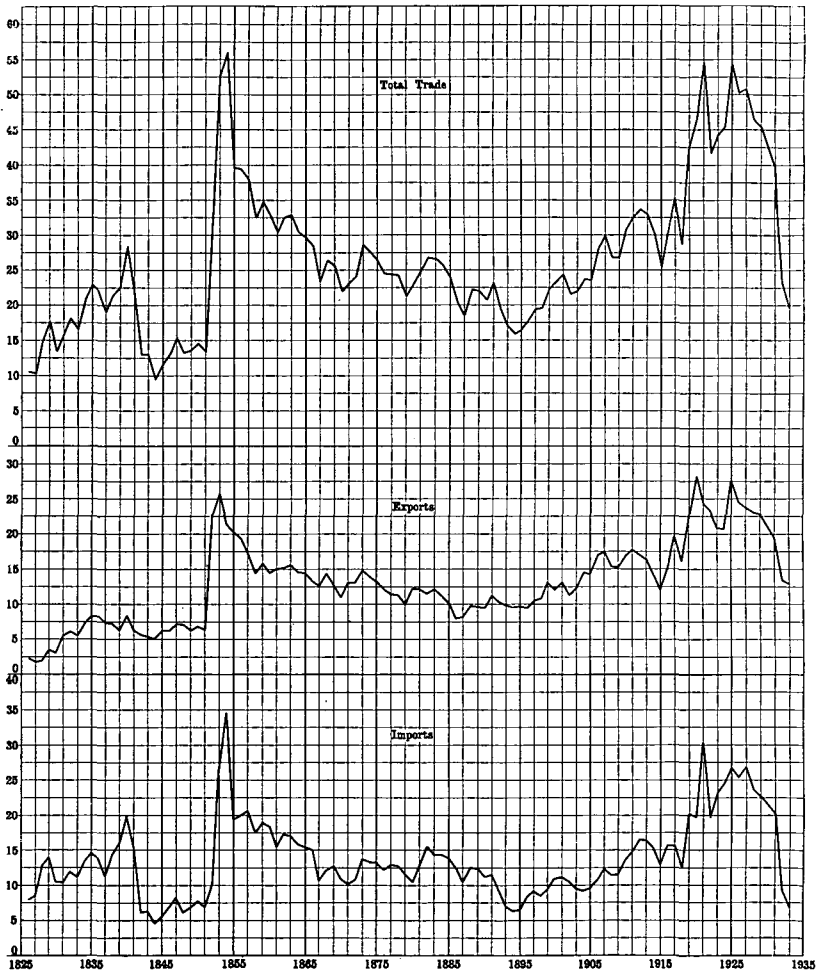
VALUE OF TOTAL TRADE, EXPORTS AND IMPORTS, AUSTRALIA 1826 TO 1931-32.



(See page 231.)

EXPLANATION.—The base of each square represents an interval of two years, and the vertical height ten million pounds sterling for imports and exports, and twenty million pounds sterling for total trade.

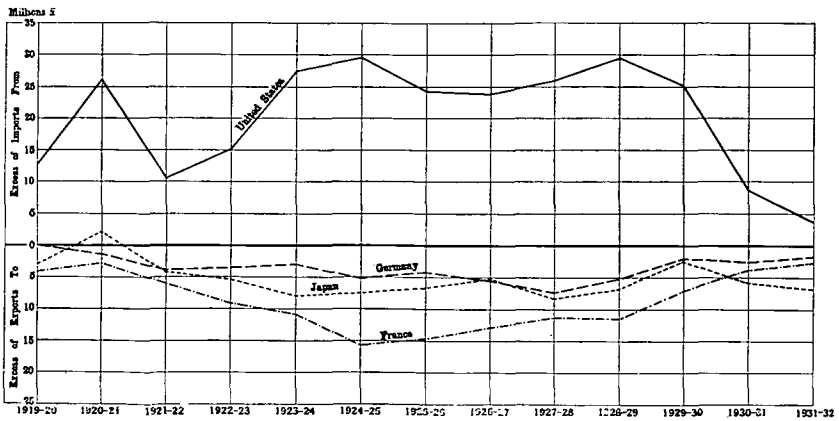
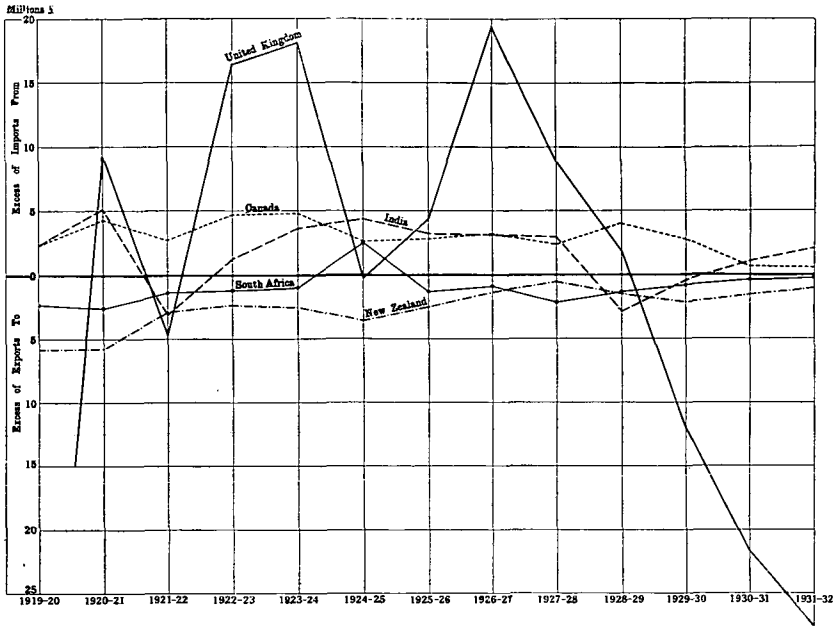
VALUES PER HEAD OF POPULATION OF TOTAL TRADE, EXPORTS AND IMPORTS  
—AUSTRALIA, 1826 TO 1931-2.



(See page 231.)

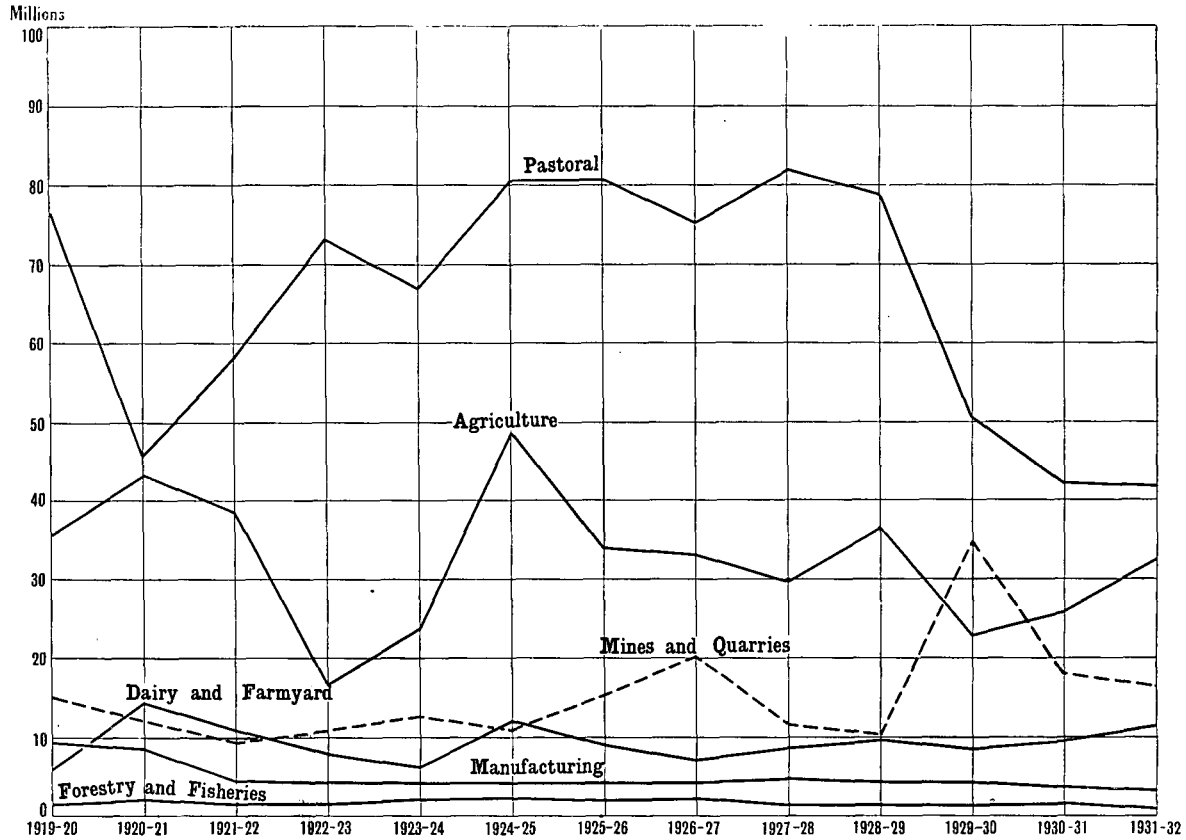
EXPLANATION.—The base of each square represents an interval of two years, and the vertical height £2 ros. od. per head of the population.

BALANCE OF AUSTRALIAN TRADE WITH OTHER COUNTRIES, 1919-20 TO 1931-32.



EXPLANATION.—The base of each square or rectangle represents one year, and the vertical height five million pounds sterling.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIES, 1919-20 TO 1931-32.



EXPLANATION.—The base of each rectangle represents one year, and the vertical height ten million pounds Australian currency. (The Mines and Quarries Group includes exports of Bullion and Specie.)

## EXPORTS OF MERCHANDISE FROM AUSTRALIA TO EASTERN COUNTRIES.

Country of Destination.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£ (A.)	£ (A.)	£ (A.)	£ (A.)	£ (A.)
China .. .. .	310,482	1,075,718	273,507	3,310,048	4,900,020
Hong Kong .. .. .	482,359	600,889	336,315	379,880	737,280
India and Ceylon .. .. .	1,499,102	7,702,149	2,894,139	2,031,033	778,603
Japan .. .. .	12,571,282	11,518,986	6,555,003	9,500,499	11,659,012
Malaya (British) .. .. .	2,007,680	1,974,431	1,389,321	818,917	916,462
Netherlands East Indies .. .. .	1,945,734	2,057,664	2,080,622	1,412,406	1,333,959
Philippine Islands .. .. .	456,989	430,993	390,750	329,239	315,366
Other Eastern Countries .. .. .	150,251	221,494	140,842	89,888	86,549
<b>Total .. .. .</b>	<b>19,423,879</b>	<b>25,582,324</b>	<b>14,060,499</b>	<b>41,787,1910</b>	<b>420,727,251</b>

(a) Australian currency value. Estimated British currency value, 1930-31, £15,225,839.; 1931-32, £16,318,584.

3. Imports of Merchandise from Eastern Countries.—The value of imports into Australia from Eastern countries during the last five years is shown in the following table. The principal commodities imported therefrom in 1931-32, and the countries of origin, were as follows:—Tea—India and Ceylon, £590,835, and Netherlands East Indies, £755,561; Petroleum—Netherlands East Indies, £1,134,021; Bags and Sacks—India, £1,928,404; Silk Piece Goods—Japan, £1,179,757.

## IMPORTS OF MERCHANDISE INTO AUSTRALIA FROM EASTERN COUNTRIES.

*British Currency Values.*

Country of Origin.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
China .. .. .	685,518	633,217	568,013	347,432	314,778
Hong Kong .. .. .	14,421	13,273	17,420	14,436	6,156
India and Ceylon .. .. .	7,490,806	8,018,677	7,146,590	4,839,970	3,373,533
Japan .. .. .	4,282,614	4,707,299	4,181,643	2,379,558	2,396,734
Malaya (British) .. .. .	1,804,602	1,133,963	812,513	274,894	276,654
Netherlands East Indies .. .. .	5,703,345	7,091,619	6,282,653	4,011,194	2,648,919
Philippine Islands .. .. .	208,547	163,030	174,518	39,957	35,947
Other Eastern Countries .. .. .	294,956	52,492	122,321	39,744	27,722
<b>Total .. .. .</b>	<b>20,484,809</b>	<b>21,813,570</b>	<b>19,305,671</b>	<b>11,947,185</b>	<b>9,080,443</b>

By comparison with the previous table, the balance of trade with Eastern countries can be ascertained and shows an excess of imports into Australia in the years 1927-28 and 1929-30, and an excess of exports from Australia in the years 1928-29, 1930-31 and 1931-32.

## § 8. Classified Summary of Australian Oversea Trade.

1. Imports.—The following table shows the value of imports into Australia during each of the last five years, arranged in classified order in accordance with the statistical classification which came into operation on 1st July, 1922:—



## IMPORTS TO AUSTRALIA—CLASSES.

British Currency Values.

Classes.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
I. Animal foodstuffs, etc. . .	2,866,708	2,367,393	2,182,397	911,076	747,110
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	6,605,536	6,246,824	6,037,798	3,372,099	2,387,434
III. Alcoholic liquors, etc. . .	1,767,497	1,876,944	1,583,368	530,166	231,938
IV. Tobacco, etc. . .	2,960,620	2,694,546	2,422,048	1,565,636	614,193
V. Live animals . . .	120,007	159,325	213,229	67,628	34,432
VI. Animal substances, etc. . .	2,182,966	1,972,615	1,953,561	914,821	783,160
VII. Vegetable substances, etc. . .	3,242,367	3,009,229	2,879,321	1,405,258	1,306,047
VIII. Apparel, textiles, etc. . .	38,488,491	36,710,916	32,546,428	15,899,259	13,831,502
IX. Oils, fats, and waxes . . .	9,872,014	11,106,944	11,566,261	6,927,042	4,833,654
X. Paints and varnishes . . .	778,663	784,594	680,195	263,079	249,964
XI. Stones and minerals, etc. . .	1,060,830	1,010,951	1,668,078	401,293	234,595
XII. Metals, metal manufactures, and machinery . . .	42,801,886	42,987,433	36,323,308	12,338,793	6,559,798
XIII. Rubber and leather, etc. . .	4,157,292	2,943,661	2,070,294	769,959	668,101
XIV. Wood and wicker, etc. . .	5,818,341	4,880,755	4,629,167	1,113,854	906,943
XV. Earthenware, etc. . .	2,422,822	2,455,467	2,251,940	818,987	518,637
XVI. Paper and stationery . . .	7,873,998	7,778,529	7,912,167	4,563,813	3,861,802
XVII. Jewellery, etc. . .	2,621,411	2,658,148	2,144,442	895,532	486,432
XVIII. Optical, surgical, and scientific instruments . . .	1,464,794	1,443,356	1,414,638	1,067,162	941,454
XIX. Drugs, chemicals, etc. . .	4,811,212	5,213,338	5,082,161	3,066,287	2,670,688
XX. Miscellaneous . . .	4,979,163	4,979,198	5,189,196	3,664,865	2,174,493
XXI. Gold and silver; and bronze specie . . .	1,048,152	367,715	325,723	399,024	670,491
Total . . . . .	147,944,970	143,647,881	131,081,320	60,959,633	44,712,868

2. Exports.—In the following tables the exports from Australia are shown in classes according to the same classification as for imports, distinguishing (a) Australian Produce; (b) Other Produce (Re-exports); and (c) Total Exports.

## EXPORTS FROM AUSTRALIA.—CLASSES.

Australian Currency Values.

Classes.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
A. AUSTRALIAN PRODUCE.					
	£ (A.)	£ (A.)	£ (A.)	£ (A.)	£ (A.)
I. Animal foodstuffs, etc. . .	13,086,175	15,475,951	14,649,566	15,059,866	17,607,436
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	27,186,943	33,543,785	22,515,068	25,569,838	31,727,701
III. Alcoholic liquors, etc. . .	1,103,910	544,538	601,653	555,713	953,667
IV. Tobacco, etc. . .	379,976	420,499	363,457	282,908	214,774
V. Live animals . . .	235,584	279,189	240,763	136,659	124,033
VI. Animal substances, etc. . .	76,563,648	71,456,567	43,827,255	36,174,451	34,766,515
VII. Vegetable substances, etc. . .	553,415	594,334	337,089	212,657	183,431
VIII. Apparel, textiles, etc. . .	180,923	172,474	200,859	175,401	205,127
IX. Oils, fats, and waxes . . .	1,274,373	1,624,812	1,070,626	689,739	909,397
X. Paints and varnishes . . .	34,858	50,320	51,567	39,428	42,213
XI. Stones and minerals, etc. . .	2,585,864	1,634,414	1,944,020	1,291,729	548,299
XII. Metals, metal manufactures, and machinery . . .	6,097,113	5,395,367	5,774,982	4,312,849	4,111,474
XIII. Rubber and leather, etc. . .	628,192	576,419	523,887	426,172	447,102
XIV. Wood and wicker, etc. . .	1,260,689	1,178,698	1,042,242	783,732	566,552
XV. Earthenware, etc. . .	120,945	77,680	89,260	59,549	68,045
XVI. Paper and stationery . . .	158,884	162,908	178,437	158,848	127,299
XVII. Jewellery, etc. . .	104,037	61,178	110,115	55,356	59,644
XVIII. Optical, surgical, and scientific instruments . . .	182,650	240,604	249,529	174,045	112,984
XIX. Drugs, chemicals, etc. . .	469,740	581,000	535,148	423,801	427,577
XX. Miscellaneous . . .	995,248	577,772	562,722	520,459	453,897
XXI. Gold and silver; and bronze specie . . .	3,738,905	3,892,352	27,748,839	15,018,664	12,118,880
Total . . . . .	136,962,122	138,540,861	122,616,884	102,121,914	105,836,047
			(a)		(a)

(a) Recorded value. Estimated British currency value, 1930-31, £86,988,142; 1931-32, £83,324,817.

EXPORTS FROM AUSTRALIA.—CLASSES—continued.

Classes.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>B. OTHER PRODUCE.—RE-EXPORTS.</b>					
<i>Australian Currency Values.</i>					
	£ (A.)	£ (A.)	£ (A.)	£ (A.)	£ (A.)
I. Animal foodstuffs, etc. . .	21,655	22,379	15,858	15,877	17,023
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	263,571	225,239	215,301	100,862	51,098
III. Alcoholic liquors, etc. . .	40,525	29,873	83,304	40,276	22,141
IV. Tobacco, etc. . .	103,393	108,099	97,191	80,459	76,353
V. Live animals . . .	27,010	25,196	63,403	36,638	25,343
VI. Animal substances, etc. . .	38,627	40,878	34,665	10,759	2,058
VII. Vegetable substances, etc. . .	502,739	499,300	313,210	16,181	5,093
VIII. Apparel, textiles, etc. . .	368,666	358,381	334,686	298,373	171,747
IX. Oils, fats, and waxes . . .	86,180	89,620	78,826	42,519	51,863
X. Paints and varnishes . . .	8,418	10,530	7,981	6,129	9,953
XI. Stones and minerals, etc. . .	2,980	1,589	1,587	2,153	274
XII. Metals, metal manufactures, and machinery . . .	718,443	742,469	636,016	677,535	634,339
XIII. Rubber and leather, etc. . .	67,857	61,404	78,645	65,120	13,902
XIV. Wood and wicker, etc. . .	57,129	61,677	57,310	39,233	26,783
XV. Earthenware, etc. . .	13,828	16,201	15,345	12,580	7,020
XVI. Paper and stationery . . .	91,405	82,647	83,463	65,981	57,470
XVII. Jewellery, etc. . .	53,049	166,093	69,590	63,331	39,853
XVIII. Optical, surgical, and scientific instruments . . .	91,405	106,092	108,785	166,334	160,155
XIX. Drugs, chemicals, etc. . .	47,986	65,962	47,468	40,351	44,419
XX. Miscellaneous . . .	1,626,303	433,871	167,608	172,439	137,493
XXI. Gold and silver; and bronze specie . . .	10,650	34,168	10	279,594	575,906
<b>Total . . . . .</b>	<b>4,243,819</b>	<b>3,091,728</b>	<b>2,510,264</b>	<b>2,232,724</b> (a)	<b>2,131,096</b> (a)

(a) Recorded value. Estimated British currency value, 1930-31, £1,916,000; 1931-32, £1,677,814.

C. TOTAL EXPORTS.—AUSTRALIAN PRODUCE AND RE-EXPORTS.

*Australian Currency Values.*

	£ (A.)	£ (A.)	£ (A.)	£ (A.)	£ (A.)
I. Animal foodstuffs, etc. . .	13,107,830	15,498,330	14,665,424	15,075,743	17,624,459
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	27,450,523	33,769,024	22,730,369	25,670,750	31,778,799
III. Alcoholic liquors, etc. . .	1,144,435	574,411	684,957	595,989	975,808
IV. Tobacco, etc. . .	483,369	528,598	460,648	363,367	291,127
V. Live animals . . .	262,594	304,385	304,166	173,297	149,376
VI. Animal substances, etc. . .	76,602,275	71,497,445	43,861,200	36,185,210	34,768,573
VII. Vegetable substances, etc. . .	1,056,145	1,003,694	650,305	228,838	189,334
VIII. Apparel, textiles, etc. . .	549,589	530,855	535,545	473,774	436,874
IX. Oils, fats, and waxes . . .	1,360,553	1,714,432	1,149,452	732,258	961,260
X. Paints and varnishes . . .	43,276	60,850	59,548	45,557	52,166
XI. Stones and minerals, etc. . .	2,588,844	1,636,003	1,945,607	1,293,882	548,573
XII. Metals, metal manufactures, and machinery . . .	6,815,556	6,137,836	6,410,998	4,990,384	4,745,813
XIII. Rubber and leather, etc. . .	696,049	637,823	602,532	491,292	461,004
XIV. Wood and wicker, etc. . .	1,317,818	1,240,375	1,099,358	822,965	593,335
XV. Earthenware, etc. . .	134,773	93,881	104,605	72,129	75,065
XVI. Paper and stationery . . .	250,289	245,555	261,000	224,829	184,769
XVII. Jewellery, etc. . .	157,136	227,271	179,705	118,687	99,497
XVIII. Optical, surgical, and scientific instruments . . .	274,055	346,696	358,314	340,379	273,139
XIX. Drugs, chemicals, etc. . .	537,726	646,962	582,516	464,152	471,996
XX. Miscellaneous . . .	2,623,551	1,011,643	730,330	692,898	591,390
XXI. Gold and silver; and bronze specie . . .	3,749,555	3,926,520	27,748,849	15,298,258	12,694,786
<b>Total . . . . .</b>	<b>141,205,941</b>	<b>141,632,589</b>	<b>125,127,148</b>	<b>104,354,638</b> (a)	<b>107,967,143</b> (a)

(a) Recorded value. Estimated British currency value, 1930-31, £88,904,142; 1931-32, £85,002,631.

3. Imports of Principal Articles.—The next table shows the quantity, where available, and the value of the principal articles imported into Australia during the last five years. The articles are given in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES IMPORTED.—AUSTRALIA.

British Currency Values.

Article.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Fish, preserved in tins	lb.	23,496,685	28,266,411	28,039,277	13,126,217	14,478,827
	£	1,141,493	1,265,510	1,342,016	501,080	442,510
Tea	lb.	45,378,944	50,038,049	50,799,402	46,433,350	44,140,136
	£	3,473,808	3,506,605	3,298,705	2,245,567	1,365,626
Whisky	gal.	1,031,212	1,024,807	946,523	385,896	150,191
	£	1,104,257	1,216,154	1,113,512	446,418	166,369
Tobacco and preparations thereof	£	2,960,620	2,694,546	2,422,648	1,565,636	614,193
Copra	cwt.	611,367	576,414	520,262	190,312	249,956
	£	701,156	651,683	497,320	97,999	136,657
Socks and stockings	£	1,348,950	1,148,409	792,456	67,297	3,516
Gloves	£	505,512	520,121	487,869	220,492	225,321
Hats and caps	£	952,126	983,059	683,501	121,386	94,514
Trimmings and ornaments	£	917,323	869,714	721,257	454,962	327,805
Carpets and carpeting	£	1,428,745	1,389,022	1,343,932	468,461	307,850
Floorcloths and linoleums	£	1,202,198	1,046,787	796,865	218,219	134,811
Piece Goods—						
Canvas and duck	£	711,209	689,991	645,828	285,527	252,495
Cotton and linen	£	8,593,908	7,571,863	7,488,675	4,123,483	4,068,299
Silk or containing silk	£	5,963,339	6,532,742	5,500,268	3,017,936	2,471,972
Woolen or containing wool	£	2,525,179	1,490,957	1,201,018	185,235	51,451
Sewing silks, cottons, etc.	£	916,949	789,032	873,935	468,591	466,120
Bags and sacks	£	3,640,348	4,098,972	2,906,817	2,753,911	1,931,355
Yarns—						
Cotton	£	672,496	858,986	939,609	454,050	470,801
Woolen	£	315,157	283,890	301,829	44,736	35,603
Kerosene	gal.	34,704,643	40,091,368	41,162,038	35,158,991	25,940,524
	£	1,036,323	1,159,438	1,089,938	707,806	434,589
Lubricating (mineral) oil	gal.	12,232,088	16,861,428	13,532,413	10,957,159	7,783,073
	£	936,253	1,319,081	1,139,580	738,310	534,997
Petroleum	gal.	252,287,568	304,582,469	361,975,366	264,085,522	205,506,148
	£	6,878,983	7,674,965	8,547,817	4,877,840	3,071,065
Electrical machinery and appliances	£	5,405,227	4,809,652	4,583,660	2,334,260	927,242
Electrical cable and wire, covered	cwt.	331,348	283,484	306,163	127,568	43,441
	£	1,721,688	1,317,115	1,517,817	507,669	274,082
Agricultural machinery	£	601,343	611,875	443,707	174,942	47,690
Metal-working machinery	£	509,574	398,684	407,190	110,344	32,421
Traction engines and road rollers	£	1,196,060	1,239,124	1,059,300	313,589	24,825
Iron and Steel—						
Pipes and tubes	£	1,554,577	1,805,565	1,390,469	461,715	272,480
Plate and sheet	£	4,703,837	3,954,003	3,713,883	1,339,715	1,033,954
Cutlery and Platedware	£	819,994	812,659	673,658	324,308	195,502
Tools of trade	£	1,057,318	1,074,219	922,499	413,028	304,030
Motor cars, chassis, bodies, and parts	£	8,255,671	10,677,344	6,794,769	860,037	436,096
Rubber and rubber manufactures	£	3,721,194	2,497,423	1,684,621	682,755	611,262
Timber, undressed, including Logs (a)	sp. ft.	431,852,406	323,088,698	338,462,347	116,452,047	121,600,530
	£	3,754,288	3,054,597	2,915,619	629,673	629,692
Crockery	£	748,167	741,481	604,740	391,531	260,305
Glass and glassware	£	1,120,591	1,124,100	1,046,109	280,532	176,634
Paper, printing	£	3,086,023	3,046,868	3,129,705	1,651,410	1,661,603
Stationery and paper manufactures	£	2,926,753	2,800,175	2,738,781	1,805,769	1,198,587
Drugs, chemicals, and fertilizers	£	4,811,212	5,213,338	5,082,161	3,069,287	2,670,688
Musical instruments, pianos, etc.	£	961,052	646,638	343,242	66,873	26,296
Outside Packages	£	..	..	1,535,385	1,794,965	1,213,561
All other articles	£	52,973,469	50,061,494	46,268,610	19,682,289	15,107,999
<b>Total Imports</b>	<b>£</b>	<b>147,944,970</b>	<b>143,647,881</b>	<b>131,081,320</b>	<b>60,959,633</b>	<b>44,712,868</b>

(a) Exclusive of undressed timber not measured in super. feet.

4. Exports of Principal Articles of Australian Produce.—(a) Quantities. The following table shows the quantities of the principal articles of Australian produce exported during the last five years. The articles are given in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES EXPORTED.—QUANTITIES, AUSTRALIA.

Article.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Butter .. .. .	991,649	1,024,428	1,073,661	1,631,807	2,016,394
Cheese .. .. .	69,267	83,310	30,894	85,947	72,677
Eggs in shell .. .. .	1,104,005	2,916,338	3,570,219	5,970,696	9,921,829
Milk and cream .. .. .	206,228	253,852	104,935	123,510	159,963
Fruits, dried .. .. .	631,851	1,071,543	1,144,081	1,233,706	909,076
Fruits, fresh .. .. .	1,865,851	826,523	1,959,418	1,680,254	2,254,665
Barley .. .. .	625,722	639,507	323,771	1,664,326	1,657,555
Wheat .. .. .	31,825,414	49,137,747	24,234,424	71,533,974	76,440,603
Flour .. .. .	8,675,900	11,276,066	9,314,664	10,484,864	12,217,163
Sugar (cane) .. .. .	3,051,227	3,988,837	3,634,216	3,383,096	5,753,158
Wine .. .. .	3,769,257	1,736,787	2,181,533	2,205,542	3,471,604
Tobacco, manufactured .. .. .	13,656	16,780	13,727	10,309	7,671
Wool (in terms of greasy wool) .. .. .	7,965,466	8,577,417	7,892,288	8,602,152	8,936,266
Pearlshell .. .. .	44,119	45,058	58,503	48,353	26,779
Sandalwood .. .. .	128,248	189,403	72,435	59,273	46,890
Tallow (unrefined) .. .. .	668,714	777,563	59,533	52,007	772,760
Coal .. .. .	555,617	346,658	294,503	387,851	344,015
Concentrates .. .. .	6,432,199	3,944,942	4,154,519	3,604,319	1,248,296
Copper .. .. .	146,473	131,991	219,582	241,121	249,471
Lead .. .. .	3,276,400	2,892,551	2,322,401	3,093,195	2,997,615
Zinc—bar, block, dust .. .. .	840,832	652,931	658,846	909,535	910,691
Tin—Ingots .. .. .	30,235	25,034	17,128	11,990	15,577
Timber, undressed, including Logs (a) .. .. .	97,964,091	91,190,142	81,348,857	62,396,283	47,038,823
Soap .. .. .	174,307	168,393	159,822	137,699	108,955

(a) Exclusive of undressed timber not measured in super. feet.

(b) Values. The values of the principal articles of Australian produce exported during the same period as in the preceding table are given in the table hereunder.

PRINCIPAL COMMODITIES EXPORTED.—VALUES, AUSTRALIA.

Australian Currency Values.

Article.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£A	£A	£A	£A	£A
Butter .. .. .	6,727,323	7,159,446	7,001,540	8,120,165	9,812,827
Cheese .. .. .	260,235	329,700	124,716	244,066	212,870
Eggs in shell .. .. .	85,844	218,929	255,571	321,627	494,032
Meats .. .. .	4,811,522	6,335,949	6,259,924	5,747,995	6,368,245
Milk and cream .. .. .	1,188,504	1,424,313	997,512	610,653	642,016
Fruits, dried .. .. .	1,600,093	2,299,330	2,169,832	2,248,791	1,965,310
Fruits, fresh .. .. .	1,818,624	941,880	1,861,428	1,588,027	2,085,595
Barley .. .. .	291,636	228,707	99,046	403,919	450,477
Wheat .. .. .	14,629,899	20,336,199	10,036,535	14,744,468	19,220,203
Flour .. .. .	5,229,463	5,998,600	4,948,927	3,513,573	3,833,237
Sugar (cane) .. .. .	2,161,916	2,390,810	2,216,468	1,805,777	2,514,502
Wine .. .. .	1,058,626	496,739	553,658	508,110	904,518
Tobacco, manufactured .. .. .	352,931	399,036	347,717	272,418	200,701
Hides and skins .. .. .	9,896,827	9,280,898	6,584,614	3,635,577	2,314,279
Wool .. .. .	66,095,901	61,612,995	36,596,600	32,001,760	32,102,246
Pearlshell .. .. .	337,469	339,016	450,615	354,992	194,351
Sandalwood .. .. .	193,222	278,238	89,427	72,969	62,914
Tallow (unrefined) .. .. .	1,080,308	1,384,191	991,592	643,405	831,415
Coal .. .. .	690,995	428,754	346,916	411,612	341,800
Concentrates .. .. .	1,689,520	994,821	1,036,377	744,098	141,633
Copper .. .. .	265,708	319,192	625,649	485,548	469,184
Lead .. .. .	3,516,236	3,233,390	3,431,939	2,418,974	2,267,924
Zinc—bar, block, dust .. .. .	1,231,752	913,191	810,457	723,894	697,236
Tin—Ingots .. .. .	389,388	282,636	167,863	81,660	121,963
Leather .. .. .	537,700	489,375	444,439	366,558	386,027
Timber, undressed, including Logs (a) .. .. .	1,164,801	1,100,325	965,647	712,501	499,008
Soap .. .. .	310,695	297,937	292,469	258,591	194,673
Gold .. .. .	2,804,249	2,958,137	26,868,534	14,279,829	11,526,304
Silver .. .. .	934,623	934,198	880,249	733,471	592,576
All other articles .. .. .	5,606,112	5,133,929	5,160,623	4,066,886	4,384,981
<b>Total Exports (Australian Produce)</b> .. .. .	<b>136,962,122</b>	<b>138,540,861</b>	<b>122,616,884</b>	<b>102,121,914</b>	<b>105,836,047</b>

(a) Exclusive of undressed timber not measured in super. feet.

(b) Recorded value.

The estimated British currency value is : 1930-31, £86,988,142 ; 1931-32, £83,324,817.

5. Imports of Merchandise, Specie and Bullion.—The table hereunder gives the value in British currency of imports into Australia during each of the last five years, grouped under the headings—Merchandise, and Specie and Bullion. The imports of merchandise are shown under the sub-headings of “ free ” and “ dutiable ” goods.

### IMPORTS OF MERCHANDISE, SPECIE AND BULLION—AUSTRALIA.

*British Currency Values.*

Year.	Merchandise.			Specie and Bullion.	Total Imports.
	Free Goods.	Dutiable Goods.	Total Merchandise.		
	£	£	£	£	£
1927-28 ..	53,243,691	93,692,849	146,936,540	1,008,430	147,944,970
1928-29 ..	53,607,067	89,674,382	143,281,449	366,432	143,647,881
1929-30 ..	53,971,857	76,786,677	130,758,534	322,786	131,081,320
1930-31 ..	25,625,776	34,935,011	60,560,787	398,846	60,959,633
1931-32 ..	18,255,502	25,787,160	44,042,662	670,206	44,712,868

(a) The estimated Australian currency value was 1930-31, £68,808,280; 1931-32, £56,967,274.

6. Exports of Merchandise, Specie and Bullion.—The next table shows the recorded value of exports from Australia during each of the last five years, grouped under the headings—Merchandise, and Specie and Bullion, giving the exports of Australian Produce and Other Produce separately.

### EXPORTS OF MERCHANDISE, SPECIE AND BULLION.—AUSTRALIA.

*Australian Currency Values.*

Year.	Merchandise.			Specie and Bullion.			Total Exports. (a)
	Australian Produce.	Other Produce.	Total Merchandise.	Australian Produce.	Other Produce.	Total Specie and Bullion.	
	£A	£A	£A	£A	£A	£A	£A
1927-28..	133,232,024	4,233,169	137,465,193	3,730,098	10,650	3,740,748	141,205,941
1928-29..	134,648,509	3,057,560	137,706,069	3,892,352	34,168	3,926,520	141,632,589
1929-30..	94,868,045	2,510,254	97,378,299	27,748,839	10	27,748,839	125,127,148
1930-31	(b) 87,103,250	1,953,130	89,056,380	15,018,664	279,594	15,298,258	104,354,038
	(c) 74,171,063	1,686,123	75,857,186	12,817,079	229,877	13,046,956	88,904,142
1931-32	(b) 93,717,167	1,555,190	95,272,357	12,118,880	575,906	12,694,786	107,967,143
	(c) 73,614,468	1,223,917	74,838,385	9,710,349	453,897	10,164,246	85,002,631

(a) Does not include the value of Ships' Stores. See later table. (b) Recorded values. (c) British currency values.

7. Imports in Tariff Divisions.—In the following table the imports into Australia during the last five years have been classified in accordance with the sixteen divisions of the Customs Tariff.

## IMPORTS IN TARIFF DIVISIONS—AUSTRALIA.

*British Currency Values.*

Tariff Division.	Imports.				
	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
I. Ale, Spirits, and Beverages .. ..	2,043,132	2,157,814	1,823,775	619,909	272,661
II. Tobacco and preparations thereof ..	2,960,620	2,694,546	2,422,648	1,565,636	614,193
III. Sugar .. ..	56,446	44,080	49,282	16,752	9,461
IV. Agricultural Products and Groceries ..	11,401,193	10,732,856	10,156,619	6,824,198	3,752,673
V. Textiles, Felts and Furs, and Manufactures thereof, and Attire .. ..	35,243,751	33,291,416	28,935,639	14,332,883	12,502,068
VI. Metals and Machinery	32,154,389	29,278,935	27,311,871	10,946,912	5,943,193
VII. Oils, Paints, and Varnishes .. ..	10,694,945	11,939,811	12,330,568	7,233,924	5,208,357
VIII. Earthenware, Cement, China, Glass, and Stone .. ..	3,396,286	3,221,320	2,851,314	1,106,687	791,154
IX. Drugs and Chemicals	3,238,754	3,253,824	3,326,255	2,179,831	1,999,799
X. Wood, Wicker, and Cane .. ..	5,815,279	4,877,474	4,629,167	1,113,854	906,943
XI. Jewellery and Fancy Goods .. ..	3,187,725	3,282,764	2,773,249	1,515,943	1,122,774
XII. Hides, Leather, and Rubber .. ..	4,650,108	3,433,966	3,418,138	1,252,068	1,085,344
XIII. Paper and Stationery	7,852,230	7,767,229	8,224,459	4,777,302	4,034,606
XIV. Vehicles .. ..	10,762,597	13,830,380	9,121,772	1,485,644	743,448
XV. Musical Instruments	962,576	648,261	344,925	66,873	26,296
XVI. Miscellaneous ..	8,576,785	9,186,039	8,455,167	4,285,951	4,236,598
— Free Goods not specially mentioned in Tariff .. ..	3,939,724	3,640,734	4,583,686	1,236,420	793,094
Total Merchandise ..	146,936,540	143,281,449	130,758,534	60,560,787	44,042,662
Specie and Bullion ..	1,008,430	366,432	322,786	398,846	670,206
Grand Total .. ..	147,944,970	143,647,881	131,081,320	60,959,633	44,712,868

The decline in imports which commenced in 1930-31 owing to increased customs duties, prohibition of imports of certain goods, and the economic depression continued during the following year. Comparing imports in tariff divisions in 1931-32 with those for 1929-30, the following classes of goods show marked decreases. Imports of vehicles (mainly motors) were only 8 per cent. of those in 1929-30; ales and spirits, 15 per cent.; wood and wicker, 20 per cent.; metals and machinery, 22 per cent.; tobacco, etc., 25 per cent.; and textiles, attire, etc., 43 per cent. Imports of musical instruments were valued at £345,000 in 1929-30 as compared with £26,000 in 1931-32.

8. **Imports and Net Customs Revenue.**—The percentage of net Customs revenue collected on the total value of all merchandise imported in each year was as follows :— 1927–28, 20.3 per cent. ; 1928–29, 20.5 per cent. ; 1929–30, 23.0 per cent. ; 1930–31, 23.0 per cent., and 1931–32, 26.5 per cent. Primage duty was imposed during the last two years, and taking this extra duty into account, the percentages were as follow :— 1930–31, 25.6 per cent., and 1931–32, 33.1 per cent. The percentages of net Customs revenue, omitting primage, on the total value of dutiable goods only were—1927–28, 31.8 per cent. ; 1928–29, 32.8 per cent. ; 1929–30, 39.2 per cent. ; 1930–31, 39.9 per cent. ; and 1931–32, 45.3 per cent. The calculations are based on British currency values and on the assumption that the value of clearances approximated to the value of imports.

### § 9. Ships' Stores.

Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and have been omitted from the export figures. The value of these stores shipped each year during the period 1906 to 1931–32, showing bunker coal separately, is given in the following table :—

VALUE OF STORES SHIPPED ON OVERSEA VESSELS—AUSTRALIA.

Period.	Bunker Coal.	All stores (including Coal.)	Period.	Bunker Coal.	All Stores (including Coal.)
	£	£		£	£
1906 .. ..	575,471	875,966	1919–20 .. ..	1,487,872	2,688,371
1907 .. ..	663,724	998,897	1920–21 .. ..	2,027,133	3,560,648
1908 .. ..	867,707	1,196,106	1921–22 .. ..	2,178,101	3,152,604
1909 .. ..	781,113	1,071,677	1922–23 .. ..	1,988,890	2,887,399
1910 .. ..	740,567	1,080,133	1923–24 .. ..	1,672,160	2,614,948
1911 .. ..	858,783	1,238,446	1924–25 .. ..	1,485,957	2,714,562
1912 .. ..	1,008,259	1,431,985	1925–26 .. ..	1,331,789	2,773,422
1913 .. ..	1,018,595	1,458,702	1926–27 .. ..	1,421,927	2,781,312
1914 (1st six mths.)	533,288	771,581	1927–28 .. ..	1,306,225	2,601,034
1914–15 .. ..	829,875	1,587,757	1928–29 .. ..	1,009,163	2,316,116
1915–16 .. ..	719,510	1,544,872	1929–30 .. ..	742,383	2,046,561
1916–17 .. ..	748,852	1,676,116	1930–31 .. ..	607,537	1,653,141
1917–18 .. ..	632,910	1,389,291	1931–32 .. ..	534,897	1,559,574
1918–19 .. ..	857,507	1,765,367			

In addition to bunker coal, the principal items of ships' stores supplied to oversea vessels in 1931–32 were—Oils, £496,603; meats, £151,094; butter, £40,444; fish, £37,012; and vegetables, £19,542.

The Customs duty collected on ships' stores carried to Australia on oversea vessels and consumed in Australian waters amounted in 1931–32 to £61,360.

### § 10. Movement of Specie and Bullion.

1. Imports and Exports.—The following tables show the value of gold and silver, specie and bullion, and of bronze specie imported into and exported from Australia during the years 1927-28 to 1931-32 :—

#### IMPORTS AND EXPORTS, SPECIE AND BULLION—AUSTRALIA.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
IMPORTS.					
Gold—Specie ..	£ 539,532	£ 502	£ 17,372	£ 5,357	£ 459
Bullion ..	432,566	346,948	273,451	368,378	653,253
Total ..	972,098	347,450	290,823	373,735	653,712
Silver—Specie ..	30,778	13,932	25,419	23,074	14,094
Bullion ..	5,298	4,923	6,480	1,947	2,305
Total ..	36,076	18,855	31,899	25,021	16,399
Bronze—Specie ..	256	127	64	90	95
GRAND TOTAL ..	1,008,430	366,432	322,786	(a) 398,846	(a) 670,206

(a) British currency values. The estimated Australian currency values are: 1930-31, £468,000; 1931-32, £852,000.

#### EXPORTS.

	£	£	£	£	£
Gold—Specie ..	2,197,297	2,915,797	26,866,824	12,909,567	4,817,890
Bullion ..	610,861	68,358	1,715	1,481,845	7,074,782
Total ..	2,808,158	2,984,155	26,868,539	14,391,412	11,892,672
Silver—Specie ..	52,007	33,327	32,605	235,110	168,939
Bullion ..	880,550	908,971	847,635	649,767	583,498
Total ..	932,557	942,298	880,240	884,877	752,437
Bronze—Specie ..	33	67	70	21,969	49,677
Total—					
Australian Produce ..	3,730,098	3,892,352	27,748,839	15,018,664	12,118,880
Other Produce ..	10,650	34,168	10	279,594	575,906
GRAND TOTAL ..	3,740,748	3,926,520	27,748,849	15,298,258	12,694,786
				(a)	(a)

(a) Australian currency values. The estimated British currency values are: 1930-31, £13,047,000; 1931-32, £10,164,000.



2. Imports and Exports by Countries.—The next table shows the imports and exports of specie and bullion from and to various countries during the year 1931-32.

**IMPORTS AND EXPORTS OF SPECIE AND BULLION BY COUNTRIES—AUSTRALIA, 1931-32.**

Country.	Imports.			Exports.		
	Specie.	Bullion.	Total.	Specie.	Bullion.	Total.
	£	£	£	£	£	£
Australia (a) ..	10,870	231	11,101	..	..	..
United Kingdom ..	3,024	1,714	4,738	2,645,942	7,328,547	9,974,489
India and Ceylon ..	..	..	..	274,191	283,471	557,662
New Zealand ..	754	286,303	287,057	20	231	251
Pacific Islands—						
Fiji .. ..	..	..	..	..	61	61
Papua .. ..	..	15,351	15,351	669	..	669
Solomon Islands ..	..	..	..	1,536	..	1,536
Territory of New Guinea ..	..	351,596	351,596	1,265	..	1,265
Tonga .. ..	..	..	..	7,530	..	7,530
South African Union ..	..	..	..	941	..	941
Total British Countries..	14,648	655,195	669,843	2,932,094	7,612,310	10,544,404
China .. ..	..	..	..	..	42,839	42,839
Germany .. ..	..	..	..	105	..	105
Netherlands East Indies .. ..	..	29	29	..	..	..
Pacific Islands :						
Samoa .. ..	..	..	..	391	..	391
United States of America ..	..	334	334	2,103,916	3,131	2,107,047
Total Foreign Countries ..	..	363	363	2,104,412	45,970	2,150,382
<b>GRAND TOTAL ..</b>	<b>14,648</b>	<b>655,558</b>	<b>670,206</b>	<b>5,036,506</b>	<b>7,658,280</b>	<b>12,694,786</b>

(a) Australian produce re-imported. (b) British currency value. The estimated Australian currency value is £852,000. (c) Australian currency value. The estimated British currency value is £10,164,000.

**§ 11. Exports according to Industries.**

1. Classification.—The following table gives an analysis of the exports of Australian produce according to the main classes of industry in which the goods were produced for the years 1930-31 and 1931-32 in comparison with those for the year 1913. The index-number based on the year 1913 shows the variations in the total recorded value only of exports in each industrial group, and has not been adjusted either for price-changes or in accordance with the variation of the Australian £ in relation to sterling.

**EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL ORIGIN.**

VALUE OF EXPORTS AS RECORDED.

Industrial Group.	1913. (a)		1930-31.		1931-32.	
	£	Index No.	£	Index No.	£	Index No.
Agriculture .. ..	10,677,734	100	25,889,696	242	32,428,418	304
Pastoral .. ..	42,057,346	100	42,102,801	100	41,789,304	99
Dairy and Farmyard ..	3,854,734	100	9,458,515	245	11,392,537	296
Mines and Quarries ..	21,926,310	100	8,063,470	37	9,265,632	42
Fisheries .. ..	424,849	100	406,984	96	233,228	55
Forestry .. ..	1,106,549	100	849,574	77	625,150	56
Total Primary Produce ..	80,047,522	100	86,771,040	108	95,734,269	120
Manufacturing .. ..	2,304,693	100	3,419,893	148	3,087,148	134
Total .. ..	82,352,215	100	90,190,933	110	98,821,417	120

(a) Base year. (b) Recorded value; estimated British currency value, 1930-31, £76,837,000 and corresponding index number 93; 1931-32, £77,802,202, index number, 94.

2. **Relative Importance of Industrial Groups.**—In the above table the value of commodities in each industrial group of exports of Australian produce is that recorded at date of shipment from Australia, with the exception that the value of the production of gold in Australia in each year has been substituted in the Mines and Quarries group for actual shipments of gold in each year. In order of importance the pastoral group occupies the highest place, and in 1913 the value of commodities included in this group represented 51.1 per cent. of the total exports, as compared with 46.7 per cent. in 1930-31 and 42.3 per cent. in 1931-32. Exports of pastoral produce generally realized lower prices during 1931-32, and although greater quantities of wool and meat were sent overseas the value of the exports of pastoral products was slightly lower than during the previous year. Wool constitutes the greater part of the exports in the pastoral group.

Exports of agricultural produce rank next in importance. Compared with the previous year the value of agricultural exports was over six millions higher in 1931-32. This group, which was equivalent to 13.0 per cent. of the total exports in 1913, increased to 28.7 per cent. in 1930-31, with a further increase to 32.8 per cent. in 1931-32.

According to value, exports of dairy and farmyard produce increased from 4.7 per cent. in 1913 to 11.5 per cent. in 1931-32, mainly due to the increase in the exports of butter. Exports included in the fisheries and forestry groups have not varied to any marked extent, but the value of exports in these groups was lower in 1931-32 than during the previous year. The manufacturing group of exports, which represented 2.8 per cent. in 1913, increased to 3.1 per cent. in 1931-32.

Compared with the year 1913, exports of agricultural produce in 1931-32 showed an increase of 204 per cent., dairy and farmyard produce, 196 per cent., manufacturing group, 34 per cent., and total exports, 20 per cent. On the other hand, pastoral exports remained stationary, and forestry and fishing products showed decreases.

3. **Australian Production and Exports according to Industry.**—The following table shows the total value of Australian Production and Australian Exports during the period of ten years, 1922-23 to 1931-32, classified according to industries; the proportion of each industrial group to total production and to total exports; and in the last column the percentage exported of the production of each industrial group:—

**VALUE OF AUSTRALIAN PRODUCTION AND EXPORTS, ACCORDING TO INDUSTRY.**

AUSTRALIAN CURRENCY VALUES.

Industrial Group.	Value of Production during Ten Years.	Percentage on Total Production.	Value of Exports during Ten Years.	Percentage on Total Exports.	Percentage Exported of the Production in each Industrial Group.
	£A.1,000.	%	£A.1,000.	%	%
Agriculture .. ..	855,940	21.25	295,542	24.11	34.53
Pastoral .. ..	1,016,805	25.24	672,574	54.87	66.15
Dairy and Farmyard .. ..	461,023	11.45	89,457	7.30	19.40
Mining .. ..	204,743	5.08	109,611	8.94	53.54
Forestry and Fisheries .. ..	112,106	2.78	17,758	1.45	15.84
<b>Total Primary Produce .. ..</b>	<b>2,650,617</b>	<b>65.80</b>	<b>1,184,942</b>	<b>96.67</b>	<b>44.70</b>
<b>Manufacturing .. ..</b>	<b>1,377,714</b>	<b>34.20</b>	<b>40,854</b>	<b>3.33</b>	<b>2.97</b>
<b>Total .. ..</b>	<b>4,028,331</b>	<b>100.00</b>	<b>1,225,796</b>	<b>100.00</b>	<b>30.43</b>

The figures relating to value of production and value of exports are subject to the qualifications mentioned previously. A period of ten years is embraced, and the values of production and of exports therein give a very fair index of the relative importance of the several industrial groups. Of the total production 66.0 per cent. was classified as primary produce and 34.0 per cent. as manufactured articles. The main contributing groups in the primary produce section were pastoral with 25.2 per cent., and agriculture with 21.3 per cent. of the total production.

Exports of primary produce represented 96.7 per cent. of the total exports. The pastoral group, with 54.9 per cent. of the total, shows the highest percentage, followed by the agricultural and mining groups with 24.1 per cent. and 8.9 per cent. respectively. Exports of goods classified in the manufacturing group represented only 3.3 per cent. of the total.

The figures in the last column of the table are of special interest, as they show the percentage exported of the production of each industrial group. Of the total primary production during the period, 45.0 per cent. was exported. Over one-third of the agricultural production and two-thirds of the pastoral production were sent abroad.

The total exports of bullion and specie are not included as part of the production of the mining industry, the actual production during the period being taken. Nineteen per cent. of the produce included in the dairy and farmyard group was exported.

On account of the inherent difficulties of classifying production and exports by industries, the figures given for the manufacturing industry should not be interpreted too literally. In the first place, the value of manufacturing "production" stated is not the total value of output, but only the "value added" by manufacturing processes, while the value of manufactured exports represents the total value of the goods, including raw materials, etc. Secondly, some of the exported goods classified as primary produce have been increased in value by manufacturing processes, but have not been changed in form sufficiently to warrant their inclusion as manufactured products, e.g., flour, butter and sugar.

## § 12. External Trade of Australia and other Countries.

1. **Essentials of Comparisons.**—Direct comparisons of the external trade of any two countries are possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance, and charges may be added thereto. Again, the values of imports and exports in the one may be declared by merchants, whereas in the other they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would arise from the different methods of converting the moneys of foreign countries, *i.e.*, from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand the same class of trade represents a comparatively small proportion of the total trade.

2. **"Special Trade" of Various Countries.**—Special trade may be defined according to the interpretation of the British Board of Trade, as (*a*) imports entered for consumption in the country (as distinguished from imports for transshipment or re-export) and (*b*) exports of domestic products.

In the following table the figures relate as nearly as possible to imports entered for consumption in the various countries specified, and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption, and, after undergoing some process of manufacture or further modification, are re-exported as

domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The figures relating to foreign countries have been extracted from the League of Nations Review of World Trade.

**IMPORTS FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS  
(MERCHANDISE ONLY), VARIOUS COUNTRIES, 1931.**

Country.	Trade.			Trade per Inhabitant.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
	£1,000,000 Stg.	£1,000,000 Stg.	£1,000,000 Stg.	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Stg.
Australia (a) ..	44.0	74.8	118.8	6 14 10	11 9 3	18 4 1
United Kingdom ..	791.5	390.7	1182.2	17 14 3	8 14 10	26 9 1
Canada ..	134.1	137.4	271.5	13 9 10	13 16 8	27 6 6
India ..	102.4	122.4	224.8	0 5 10	0 6 11	0 12 9
New Zealand ..	24.3	31.1	55.4	16 6 1	20 17 4	37 3 5
Union of South Africa ..	58.0	73.5	131.5	7 6 11	9 6 3	16 13 2
United States of America ..	461.5	524.6	986.1	3 15 2	4 5 6	8 0 8
Argentine Republic ..	77.0	94.4	171.4	6 17 7	8 8 8	15 6 3
Belgium ..	145.6	141.8	287.4	18 1 3	17 11 10	35 13 1
China ..	107.0	65.3	172.3	0 4 10	0 3 0	0 7 10
Denmark ..	77.7	69.7	147.4	21 18 8	19 13 6	41 12 2
France ..	364.9	263.2	628.1	8 17 5	6 8 0	15 5 5
Germany ..	353.4	504.3	857.7	5 11 10	7 19 8	13 11 6
Italy ..	135.0	116.5	251.5	3 3 0	2 14 4	5 17 4
Japan ..	129.9	120.7	250.6	2 0 4	1 17 6	3 17 10
Netherlands ..	167.9	116.3	284.2	21 8 9	14 17 6	36 6 3
Norway ..	46.8	24.9	71.7	16 3 10	8 12 4	24 16 2
Sweden ..	79.0	61.8	140.8	12 18 2	10 1 11	23 0 1
Switzerland ..	94.2	56.9	151.1	23 3 2	13 19 9	37 2 11

(a) Year ended 30th June, 1932.

**§ 13. Trade of the United Kingdom with Australia compared with that of Competing Countries.**

Proportion of Trade from United Kingdom and Competing Countries.—The failure of the United Kingdom to maintain the position formerly held in the import trade of Australia has been a matter of more than ordinary interest for some years. Since 1908 permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From the 8th August, 1907, the Commonwealth Customs Tariffs have provided preferential rates of Customs Duties on certain goods the produce or manufacture of the United Kingdom, with the object of assisting the British manufacturer to retain or improve his position in this market. The main provisions in these Acts relating to preference are dealt with on previous pages in this Chapter.

In an investigation into the relative position, as compared with other countries, occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. The imports to Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom could not supply. These items, in addition to others not available from that country, have, therefore, been omitted from the computation hereunder.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, Germany, Japan, and the United States. These countries have been selected as the principal competitors with the United Kingdom for the trade of Australia under the specified headings. Totals for the five years 1913 and 1928-29 to 1931-32 are shown in the table hereunder.

### AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES.

BRITISH CURRENCY VALUES.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
		£	£	£	£	£	£
Foodstuffs of animal origin	1913 ..	301,025	3,093	12,071	6,988	259,229	947,697
	1928-29	563,780	4,670	2,619	101,843	488,882	2,367,393
	1929-30	497,727	3,776	1,752	136,663	399,159	2,182,397
	1930-31	259,365	870	325	69,058	131,767	911,076
	1931-32	196,695	581	770	12,534	86,945	747,110
Spirituous and alcoholic liquors	1913 ..	1,227,561	343,394	143,426	1,689	2,805	1,947,248
	1928-29	1,548,720	189,731	7,649	69	67	1,876,944
	1929-30	1,307,566	148,424	7,472	..	65	1,583,368
	1930-31	488,775	20,456	784	6	159	530,166
	1931-32	198,357	11,730	108	3	1	231,938
Apparel, textiles, and manufactured fibres	1913 ..	12,254,561	961,025	1,712,395	475,973	623,542	19,935,750
	1928-29	18,947,016	2,144,072	1,194,409	3,620,535	2,727,318	36,710,916
	1929-30	18,427,684	1,593,457	1,021,931	2,988,352	2,093,022	32,546,428
	1930-31	7,913,673	673,087	448,170	1,641,178	744,615	15,898,259
	1931-32	7,359,720	565,332	331,373	1,689,419	430,851	13,831,502
Metals, metal manufactures and machinery	1913 ..	13,905,483	217,148	2,380,152	7,657	3,817,705	21,670,212
	1928-29	20,593,894	151,183	1,418,883	26,218	16,472,338	42,987,433
	1929-30	19,279,528	136,187	1,417,616	23,205	12,591,938	36,323,308
	1930-31	7,167,899	57,010	629,340	21,602	2,967,405	12,338,793
	1931-32	4,206,065	51,043	362,035	36,482	1,294,220	6,559,798
Paper and stationery	1913 ..	1,789,577	21,930	266,483	10,656	403,679	3,134,750
	1928-29	4,689,952	156,192	221,447	20,457	744,437	7,778,529
	1929-30	4,824,866	171,983	238,806	19,687	733,526	7,912,167
	1930-31	2,838,433	181,026	138,365	14,343	384,099	4,565,813
	1931-32	2,306,655	100,685	108,434	22,084	293,901	3,861,802
Jewellery, time-pieces, and fancy goods	1913 ..	521,290	88,070	263,688	19,307	138,217	1,442,292
	1928-29	745,533	103,615	430,623	101,251	234,998	2,658,148
	1929-30	645,323	94,202	380,120	97,398	207,541	2,144,442
	1930-31	310,268	42,549	168,182	65,438	74,640	895,532
	1931-32	134,737	17,723	66,216	62,898	29,762	486,432
Earthenware, cements, glass, etc.	1913 ..	650,138	40,245	453,188	21,493	62,887	1,565,727
	1928-29	1,400,213	34,721	192,494	148,560	170,096	2,453,467
	1929-30	1,291,885	27,919	169,449	123,118	140,907	2,251,940
	1930-31	464,241	9,096	56,447	74,940	61,844	818,987
	1931-32	261,531	5,821	25,350	100,551	45,032	518,637
Drugs, chemicals, and fertilizers	1913 ..	1,020,647	245,426	304,179	139,178	210,758	2,721,902
	1928-29	1,868,485	327,529	281,381	55,452	933,344	5,213,338
	1929-30	1,835,367	273,687	355,118	46,264	1,053,804	5,082,161
	1930-31	1,094,371	320,574	247,625	24,823	452,695	3,069,287
	1931-32	1,100,644	233,006	234,998	45,171	433,623	2,670,688
Rubber and leather and manufactures thereof and substitutes therefor	1913 ..	485,216	68,686	347,045	688	433,837	1,717,035
	1928-29	588,855	124,684	98,736	1,835	633,750	2,943,661
	1929-30	509,313	67,006	91,271	968	408,702	2,070,294
	1930-31	225,955	5,696	37,229	807	121,190	769,959
	1931-32	177,711	5,240	42,798	4,167	81,941	668,101
Total above-mentioned imports	1913 ..	32,155,498	1,989,017	5,882,627	68,3629	5,982,659	55,082,613
	1928-29	50,936,448	3,236,397	3,848,241	4,076,220	22,405,230	104,991,829
	1929-30	48,619,259	2,516,041	3,683,535	3,435,655	17,628,660	92,096,505
	1930-31	20,762,980	1,310,364	1,726,407	1,912,285	4,938,414	39,797,872
	1931-32	15,942,115	1,011,161	1,192,082	1,973,309	2,696,336	29,576,008
Total imports (less bullion and specie)	1913 ..	40,948,803	2,222,631	7,029,325	950,300	10,907,512	78,196,109
	1928-29	57,012,018	3,700,279	4,545,501	4,707,299	35,307,341	143,281,449
	1929-30	54,241,400	3,070,645	4,341,078	4,181,643	30,313,532	130,758,534
	1930-31	23,275,830	1,498,160	1,997,056	2,379,558	11,398,537	60,560,787
	1931-32	17,404,818	1,145,829	1,427,079	2,396,734	7,937,417	44,042,662

Stated as percentages the figures in the preceding table are shown below :—  
**AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES—PERCENTAGES.**

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
		%	%	%	%	%	%
Foodstuffs of animal origin	1913 ..	31.77	0.33	1.27	0.74	30.52	100
	1928-29	23.81	0.20	0.11	4.30	20.65	100
	1929-30	22.81	0.17	0.08	6.26	18.29	100
	1930-31	28.47	0.10	0.04	7.58	14.46	100
	1931-32	26.33	0.07	0.10	1.68	11.64	100
Spirituous and alcoholic liquors	1913 ..	63.04	17.64	7.37	0.09	0.14	100
	1928-29	82.51	10.11	0.40	0.00	0.00	100
	1929-30	82.58	9.37	0.47	0.00	0.00	100
	1930-31	92.19	3.86	0.15	0.00	0.03	100
	1931-32	85.52	5.06	0.05	0.00	0.00	100
Apparel, textiles, and manufactured fibres	1913 ..	61.48	4.82	8.59	2.39	3.13	100
	1928-29	51.61	5.84	3.25	9.86	7.43	100
	1929-30	56.61	4.90	3.14	9.18	6.43	100
	1930-31	49.78	4.23	4.23	10.32	4.68	100
	1931-32	53.21	4.09	2.40	12.21	3.11	100
Metals, metal manufactures, and machinery	1913 ..	64.17	1.00	10.98	0.04	17.62	100
	1928-29	47.90	0.35	3.30	0.06	38.32	100
	1929-30	53.08	0.37	3.90	0.06	34.66	100
	1930-31	58.09	0.46	5.10	0.18	24.04	100
	1931-32	64.12	0.78	5.51	0.56	19.73	100
Paper and Stationery	1913 ..	57.41	0.70	8.50	0.34	12.88	100
	1928-29	60.29	2.01	2.84	0.26	9.57	100
	1929-30	60.98	2.17	3.02	0.25	9.27	100
	1930-31	62.17	3.96	3.03	0.31	8.41	100
	1931-32	59.73	2.61	2.81	0.57	7.61	100
Jewellery, timepieces, and fancy goods	1913 ..	36.14	6.11	18.28	1.34	9.58	100
	1928-29	28.05	3.90	16.20	3.80	8.84	100
	1929-30	30.01	4.39	17.73	4.54	9.67	100
	1930-31	34.64	4.75	18.78	7.31	8.33	100
	1931-32	27.70	3.64	13.61	12.91	6.12	100
Earthenware, cements, glass, etc.	1913 ..	41.52	2.57	28.94	1.37	4.02	100
	1928-29	57.02	1.41	7.84	6.05	6.93	100
	1929-30	57.36	1.24	7.52	5.47	6.26	100
	1930-31	56.68	1.11	6.89	9.15	7.55	100
	1931-32	50.43	1.12	4.89	19.39	8.68	100
Drugs, chemicals, and fertilizers	1913 ..	37.49	9.02	11.18	5.11	7.74	100
	1928-29	35.22	6.28	5.40	1.06	17.90	100
	1929-30	36.11	5.39	6.99	0.91	20.73	100
	1930-31	35.65	10.44	8.07	0.81	14.75	100
	1931-32	41.21	9.47	9.55	1.69	16.24	100
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	28.26	4.00	20.21	0.04	25.27	100
	1928-29	18.98	4.24	3.35	0.06	21.53	100
	1929-30	24.60	3.24	4.41	0.04	19.74	100
	1930-31	29.34	0.74	4.83	0.12	15.73	100
	1931-32	26.60	0.78	6.41	0.62	12.26	100
Total above-mentioned articles	1913 ..	58.38	3.61	10.68	1.24	10.86	100
	1928-29	53.48	3.40	4.04	4.28	23.52	100
	1929-30	52.79	2.73	4.00	3.73	19.14	100
	1930-31	52.17	3.29	4.34	4.80	12.41	100
	1931-32	53.90	3.41	4.03	6.67	9.12	100
Total imports (less bullion and specie)	1913 ..	52.37	2.84	8.99	1.22	13.95	100
	1928-29	39.79	2.58	3.17	3.29	24.64	100
	1929-30	41.48	2.35	3.32	3.20	23.18	100
	1930-31	38.43	2.47	3.30	3.93	18.82	100
	1931-32	39.52	2.60	3.25	5.44	15.98	100

The total value of the commodities included in the competitive classes increased from £55,082,613 during 1913 to £104,991,829 during 1928-29, and thereafter declined each year to £29,576,008 in 1931-32. The principal classes of goods in the latter year were—(a) apparel, attire, and manufactured fibres, £13,831,502 and (b) metals, metal

manufactures and machinery, £6,559,798. The value of goods included in these two groups represented 69 per cent. of the total value of competitive commodities during 1931-32, as compared with 71 per cent. during 1930-31. In previous years imports of the latter group were greater than those in the apparel and textiles group, but in the last two years the position was reversed owing to the particularly heavy decline in imports of motor cars, electrical machinery, and iron and steel.

Of the total value of competitive goods, the United Kingdom supplied 53.90 per cent. during 1931-32, as against 58.38 per cent. during 1913, and 52.17 per cent. in 1930-31. In three of the nine competitive groups of imports, the proportion supplied by the United Kingdom increased during 1931-32 as compared with the previous year. The groups which showed increased proportions were drugs, chemicals and fertilizers, and the two main groups, apparel and textiles; and metals, metal manufactures and machinery. In six groups the proportion from the United Kingdom declined, the two groups in which marked declines were recorded being: jewellery, timepieces and fancy goods, and earthenware, cements, glass, etc. In these groups the proportion supplied by Japan increased noticeably during 1931-32. The United Kingdom supplied Australia during 1931-32 with 85.52 per cent. of the total oversea purchases of spirituous and alcoholic liquors; 53.21 per cent. of apparel and attire; 59.73 per cent. of paper and stationery; 50.43 per cent. of earthenware, glassware, etc.; and 64.12 per cent. of metal manufactures and machinery.

The share of Japan in the competitive trade increased from 1.24 per cent. in 1913 to 6.67 per cent. in 1931-32, as compared with 4.80 per cent. in 1930-31. In seven of the competitive groups of imports the proportion of the trade supplied by Japan increased, the groups showing marked increases being: earthenware, cements, glass, etc.; jewellery and fancy goods, and apparel, textiles, etc. The most important classes of goods imported from Japan are as follows:—Silk piece goods, cotton and linen piece goods, raw silk, crockery, and fancy goods. The total value of imports from Japan in the competitive groups during 1931-32 was £1,973,309, and of this total silk piece goods valued at £1,179,757 represented 60 per cent., and cotton and linen piece goods valued at £302,232 represented 15 per cent., or 75 per cent. of the total competitive goods imported from Japan.

The position of the United States of America in this competitive trade improved from 10.86 per cent. in 1913 to 23.52 in 1928-29, but was not maintained in 1929-30, during which year a decrease to 19.14 per cent. was experienced. The trade declined in 1930-31 to 12.41 per cent., with a further downward movement to 9.12 per cent. in 1931-32. In the latest pre-war year (1913) the value of goods from the United States in the "competitive" groups was £5,982,659, and in 1931-32 it was £2,696,336. The only group of commodities in which United States sales to Australia during 1931-32 was greater than those of 1913 was drugs, chemicals, and fertilizers. Imports of machinery and metal manufactures (including motor vehicles) from the United States declined from £16,472,338 in 1928-29 to £1,294,220 in 1931-32.

The position of France declined from 3.61 per cent. in 1913 to 2.73 per cent. in 1929-30, with an increase to 3.41 per cent. in 1931-32. Apparel, textiles, and drugs, chemicals and fertilizers are the most important imports from France.

The proportion of the imports supplied by Germany in 1913 was 10.68 per cent. as compared with 58.38 per cent. from the United Kingdom; 3.61 per cent. from France; 1.24 per cent. from Japan; and 10.86 per cent. from the United States. From 1918-19 to 1921-22 imports from Germany were on a very small scale, but have increased since the latter year. The percentage of the imports for 1931-32 was 4.03 per cent., as compared with 0.86 per cent. in 1923-24. The principal classes of imports from Germany are manufactured metals and machinery, apparel and textiles, and drugs and chemicals.

The percentages for the total value of competitive goods decreased in the year 1931-32 for Germany and the United States of America, and increased for the United Kingdom, France, and Japan. The largest decrease is shown in the percentage imported from the United States of America, which fell from 12.41 per cent. in 1930-31 to 9.12 per cent. in 1931-32.

## § 14. Oversea Trade in Calendar Years.

For the purpose of comparison with countries which record oversea trade in calendar years the following table has been compiled to show Australian imports and exports for each quarter of the calendar years 1928 to 1932 inclusive.

## OVERSEA TRADE, AUSTRALIA.—CALENDAR YEARS.

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£1,000 (s).	£1,000 (s).	£1,000 (s).	£1,000 (s).	£1,000 (s).	£1,000 (s).
QUARTER ENDED 31ST MARCH.						
1928 ..	35,195	42,552	104	517	35,299	43,069
1929 ..	35,416	44,921	99	1,490	35,515	46,411
1930 ..	32,208	24,246	56	13,853	32,264	38,099
		24,246		13,853		38,099
1931 ..	12,782	(R) 24,119	139	(R) 1,224	12,921	(R) 25,343
		(S) 18,973		(S) 1,224		(S) 20,197
1932 ..	10,518	(R) 27,814	158	(R) 2,505	10,676	(R) 30,319
		(S) 22,163		(S) 2,027		(S) 24,190
QUARTER ENDED 30TH JUNE.						
1928 ..	31,166	27,373	592	493	31,758	27,866
1929 ..	35,089	28,602	74	549	35,163	29,151
1930 ..	23,883	23,607	118	3,214	24,001	26,821
		23,607		3,214		26,821
1931 ..	9,422	(R) 21,623	99	(R) 4,762	9,521	(R) 26,385
		(S) 16,560		(S) 4,762		(S) 21,322
1932 ..	12,283	(R) 21,719	230	(R) 5,818	12,513	(R) 27,537
		(S) 17,305		(S) 4,712		(S) 22,017
QUARTER ENDED 30TH SEPTEMBER.						
1928 ..	32,456	21,665	108	1,522	32,564	23,187
1929 ..	37,763	20,048	83	2,879	37,846	22,927
1930 ..	20,297	(R) 17,005	72	6,412	20,369	(R) 23,417
		(S) 16,021		6,412		(S) 22,433
1931 ..	10,222	(R) 15,960	144	(R) 2,044	10,366	(R) 18,004
		(S) 12,236		(S) 1,586		(S) 13,822
1932 ..	15,023	(R) 16,639	330	(R) 2,377	15,353	(R) 19,016
		(S) 13,285		(S) 1,923		(S) 15,208
QUARTER ENDED 31ST DECEMBER.						
1928 ..	40,321	42,518	85	366	40,406	42,884
1929 ..	36,904	29,477	66	7,803	36,970	37,280
1930 ..	18,060	(R) 26,310	89	(R) 648	18,149	(R) 26,958
		(S) 24,292		(S) 648		(S) 24,940
1931 ..	11,019	(R) 29,779	139	(R) 2,328	11,158	(R) 32,107
		(S) 23,150		(S) 1,824		(S) 24,974
1932 ..	15,343	(R) 29,610	255	(R) 2,022	15,598	(R) 31,632
		(S) 23,639		(S) 1,637		(S) 25,276
TOTAL FOR YEAR.						
1928 ..	139,138	134,108	889	2,898	140,027	137,006
1929 ..	145,172	123,048	322	12,721	145,494	135,769
1930 ..	94,448	(R) 91,168	335	(R) 24,127	94,783	(R) 115,295
		(S) 88,166		(S) 24,127		(S) 112,293
1931 ..	43,445	(R) 91,481	521	(R) 10,358	43,966	(R) 101,839
		(S) 70,919		(S) 9,396		(S) 80,315
1932 ..	53,167	(R) 95,782	973	(R) 12,722	54,140	(R) 108,504
		(S) 76,392		(S) 10,299		(S) 86,691

(R) Recorded values.

(S) British currency values.



## § 15. Excise.

The accompanying information in regard to excise has been inserted here for purpose of convenience. The following table shows, in detail, the quantities of spirits, beer, tobacco, etc., on which excise duty was paid in Australia during each of the five years 1927-28 to 1931-32. Particulars of Customs and Excise Revenue are shown in Chapter XIV.—Public Finance, Section 2.

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID—AUSTRALIA.

Article.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>Spirits—</b>	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Brandy (Pure Australian Standard Brandy) ..	230,817	226,756	210,309	139,378	143,297
Brandy (Blended Wine Brandy, etc.) ..	1,224	831	1,337	339	1,103
Gin (Distilled from Barley, Malt, Grain, or Grape Wine, etc.) ..	48,429	59,136	118,476	148,891	137,353
Whisky (Australian Standard Malt Whisky) ..	206,922	217,372	265,905	150,225	142,107
Whisky (Australian Blended Whisky) ..	..	152	278	5	67
Rum (Australian Standard Rum) ..	550,211	518,176	487,024	287,733	283,129
Liqueurs ..	163	358	852	838	1,148
Spirits, n.e.i. ..	1,759	923	172	44	148
Spirits for Industrial or Scientific Purposes ..	138,279	137,887	124,636	93,205	98,738
Spirits for Fortifying Wine (Distilled from Doradillo Grapes) ..	406,489	248,263	258,827	238,607	280,365
Spirits for Fortifying Wine	797,258	571,399	502,061	296,044	450,624
Spirits for making Vinegar	43,303	45,005	39,426	37,283	29,906
Spirits for Manufacture of Scents, etc. (a) ..	36,173	36,109	44,113	39,641	40,967
Amylic Alcohol and Fusel Oil ..	25	55	115	200	69
Concentrated Grape Must ..	..	..	..	22,224	14,149
<b>Total, Spirits ..</b>	<b>2,461,052</b>	<b>2,062,422</b>	<b>2,053,531</b>	<b>1,454,657</b>	<b>1,623,170</b>
	gal.	gal.	gal.	gal.	gal.
<b>Beer .. ..</b>	<b>70,755,600</b>	<b>71,160,596</b>	<b>65,095,178</b>	<b>52,459,070</b>	<b>47,667,903</b>
<b>Tobacco — Manufactured, n.e.i. ..</b>	<b>13,110,308</b>	<b>13,529,775</b>	<b>13,859,202</b>	<b>13,180,577</b>	<b>13,370,263</b>
<b>Tobacco—Hand-made ..</b>	<b>308,574</b>	<b>274,213</b>	<b>206,161</b>	<b>147,537</b>	<b>122,566</b>
<b>Tobacco—Fine-cut, suitable for Cigarettes ..</b>	<b>24,396</b>	<b>18,110</b>	<b>2,991</b>	<b>532</b>	<b>..</b>
<b>Total, Tobacco ..</b>	<b>13,443,278</b>	<b>13,822,098</b>	<b>14,068,354</b>	<b>13,328,646</b>	<b>13,492,829</b>
<b>Cigars—Machine-made ..</b>	<b>36,425</b>	<b>46,442</b>	<b>48,627</b>	<b>53,349</b>	<b>39,582</b>
<b>Cigars—Hand-made ..</b>	<b>348,002</b>	<b>291,842</b>	<b>287,618</b>	<b>257,019</b>	<b>199,120</b>
<b>Total, Cigars ..</b>	<b>384,427</b>	<b>338,284</b>	<b>336,245</b>	<b>310,368</b>	<b>238,702</b>

(a) Liquid gallons.

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID—AUSTRALIA—*continued.*

Article.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	lb.	lb.	lb.	lb.	lb.
Cigarettes—Machine-made	5,318,668	5,336,298	5,243,588	4,324,679	4,054,064
Cigarettes—Hand-made ..	6,939	4,807	463	403	826
Total Cigarettes ..	5,325,607	5,341,105	5,244,051	4,325,082	4,054,890
Cigarette Tubes and Papers	..	..	..	..	60 papers or tubes. 1,579,456
Matches.. ..	..	..	..	..	gross of boxes. 333,190
Petrol .. ..	..	..	..	gal. 19,402,032	gal. 19,044,324
Playing Cards .. ..	..	..	..	doz. packs. 104,331	doz. packs. 111,719

§ 16. Interstate Trade.

Arrangements for collecting and compiling complete statistics of interstate trade have been in operation in Western Australia and Tasmania for many years, and at the Conference of Statisticians held in January, 1928, it was resolved that efforts be made in the other States to collect data concerning the interstate movement of certain principal commodities. Since January, 1931, statistics have been compiled for Queensland showing the trade with individual States in the main classes of goods. Many difficulties are associated with the recording of interstate trade in Australia, as commodities are conveyed by sea, railway, road, river or air, and although efforts are being made in the other three States to extend the arrangements for collecting the required information, the returns so far are incomplete.

## CHAPTER VIII.

## EDUCATION.

## § 1. Evolution of Educational Systems in Australia.

1. **Educational Systems of the States.**—(i) *Place of New South Wales in Australian Education.* The first settlement in Australia being in New South Wales, it is but natural that Australian Education should have had its beginning in that State. In the evolution of educational method and system in Australia, New South Wales also has played a leading part, and has had practically a dominating influence. The subject is dealt with in some detail in No. I. and No. II. issues of the Commonwealth Official Year Book, but it is not proposed to repeat it in the present volume. (See also 2 hereunder.)

(ii) *Educational Systems of other Commonwealth States.* A more or less detailed account of the origin and development of the educational systems of the other States also appears in No. I. and No. II. issues of the Year Book.

(iii) *Medical Inspection of State School Children.* See Chapter XI., Public Hygiene.

2. **Later Development in State Educational Systems.**—Preceding issues of the Official Year Book contained an outline of later developments of the educational systems of the various States (see No. 22, pp. 426-29), but it has been decided to omit this information from the present volume.

As pointed out in previous issues, the educational system of New South Wales may now be considered as a more or less homogeneous entity, the various stages succeeding one another by logical gradation from kindergarten to university. In the other States development is proceeding on somewhat similar lines, activity in this respect being greatly helped by interstate conferences of directors of education and of inspectors and teachers as well as by the Council alluded to in 3. hereunder.

3. **Australian Council for Educational Research.**—This Council, which was constituted on 10th February, 1930, receives from the Carnegie Corporation an endowment of £5,000 a year for ten years for general purposes, and a further sum of £2,500 a year for five years for administrative purposes. It consists of nine members of whom six are elected by the State Institutes for Educational Research, and three are co-opted members. The publications of the Council appear in the form of a Research Series published by the Melbourne University, and up to the end of 1932, fifteen numbers had appeared. Since its inception the Council has granted 108 applications for assistance to persons who wished to carry out investigations, or have their works published. During the same period, the Council itself initiated a number of investigations. In addition to organizing the carrying out of research, the Council acts as a centre for the collection and dissemination of information concerning Australian education. Expenditure to the end of June, 1932, amounted to £6,716.

4. **Imperial Educational Conference.**—A meeting of the Advisory Committee was held in London in June, 1931. No formal resolutions were passed, but it was decided that the next meeting of the Conference should be held in July, 1933, and that the main subjects for consideration should be the more practical aspects of education, including the relation of education to industry and the development of technical, commercial, and agricultural education. The provision of greater facilities for post-graduate research in educational theory and practice, for interchanges of teachers, &c., will also be discussed.

## § 2. State Schools.

1. **General.**—The State Schools, or, as they are sometimes termed, the “public” schools, of Australia comprise all schools directly under State control, in contradistinction to the so-called “private” schools, the bulk of which, though privately managed, nevertheless cater for all classes of the community. Separate information regarding Technical Education is given in § 6, but the junior technical schools are included hereunder. The returns include figures relating to correspondence schools as well as subsidized schools, but evening schools and continuation classes where such are in existence, are not included, but are dealt with separately in 4. iv hereinafter.

2. **Returns for Year 1931.**—(i) *General.* The following table shows the number of State Schools, together with the teachers employed and the enrolment and average attendance in each State during the year 1931 :—

STATE SCHOOLS.—RETURNS, 1931.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance.	Percentage of Attendance on Enrolment
New South Wales (a) ..	3,191	13,120	366,378	322,816	88.1
Victoria ..	2,747	9,382	243,434	215,691	88.6
Queensland ..	1,724	4,299	144,299	115,896	80.3
South Australia ..	1,055	3,479	89,928	78,620	87.4
Western Australia ..	866	2,202	58,675	53,630	91.4
Tasmania ..	508	(b)1,268	33,868	30,328	89.6
Northern Territory ..	6	12	319	281	88.1
Australia ..	10,097	33,762	936,901	817,262	87.2

(a) Including Federal Capital Territory.

(b) Exclusive of 33 teachers in junior technical schools.

During recent years the percentage of attendance on enrolment has risen considerably. This is due partly to the greater attractiveness of school life consequent on improved methods in teaching and school management, and partly to more effective administration of the compulsory provisions of the Education Acts. Due weight must also be given to the excellent help given by parents' and citizens' associations, mothers' clubs, etc., in connexion with many of the schools. Allowance, moreover, must be made for the fact that in periods of depression, when employment is difficult to obtain, there is a tendency for pupils to remain longer at school. In New South Wales, for example, the enrolment figures for 1931 show an excess of over 9,000 on those for the previous year, the increase occurring chiefly in classes above the primary course. Owing to the necessity for rigid economy, consequent on the restriction in the funds available, this increase in enrolment created difficult problems in the provision of staff, accommodation, equipment, etc.

The methods of calculating enrolment are not quite identical throughout the States, but the figures may be taken as representing the net number on the rolls after allowing for repeated enrolments. The matter of securing uniformity in this respect has been under consideration for some time, and the Educational Research Council, alluded to in § 1, 3 *ante*, is devoting attention to the question of securing greater uniformity in methods of collection and presentation of educational data generally. Uniformity in educational statistics also was included in the agenda set down for discussion at the eighth Conference of Directors of Education in Australia and New Zealand held in Melbourne in May, 1930.

(ii) *Schools in the Federal Capital Area.*—(a) *General.* During the year 1931 fourteen State Schools were in operation in the Federal Capital Territory (Yass-Canberra). The individual pupils enrolled numbered 1,425 and the average attendance 1,077. Cost of upkeep amounted to £12,922. By arrangement with the Federal Government these schools are conducted by the New South Wales Education Department on the same lines as the ordinary State Schools, the Department being recouped for expenditure. Ample provision has been made for both primary and secondary education, and this

will be increased to meet requirements. The figures quoted, other than expenditure, do not include enrolment, etc., at the Trade School and the Evening Continuation School. (b) *The Canberra University College* (see § 5-6 hereinafter).

3. **Increase in Average Attendance.**—The average attendance at the State Schools in Australia is shown below for the years 1891, 1901, 1911, and for each year of the period 1927 to 1931:—

**STATE SCHOOLS.—AVERAGE ATTENDANCE.—AUSTRALIA.**

Year.	Total Population. (a)	Average Attendance.	Year.	Total Population. (a)	Average Attendance.
1891 .. ..	3,421	350,773	1928 .. ..	6,337	764,496
1901 .. ..	3,825	450,246	1929 .. ..	6,414	777,626
1911 .. ..	4,573	463,799	1930 .. ..	6,476	801,729
1927 .. ..	6,235	748,712	1931 .. ..	6,526	817,262

(a) At 31st December, in thousands.

During the last five years the average attendance increased by about 9.2 per cent., the figures ranging from about 14 per cent. in New South Wales to about 5 per cent. in Queensland.

4. **Distribution of Educational Facilities.**—(i) *In Sparsely-settled Districts.*—(a) *General.* The methods adopted in the various States to carry the benefits of education into the remotest and most sparsely-settled areas are set out in some detail in previous issues of the Official Year Book (see No. 22, pp. 430-31), but limitations of space preclude their repetition in the present volume. (b) *Correspondence Teaching.* Teaching by correspondence has been adopted to meet the needs of children out of reach of the ordinary means of education, including those incapacitated from attending school by reason of physical ailment. Over 14,500 children were receiving instruction in this way during 1931, the respective numbers in each State being New South Wales, 4,885; Victoria, 743; Queensland, 4,980; South Australia, 1,470; Western Australia, 2,148; Tasmania, 295. In the Northern Territory, 31 children were receiving tuition by correspondence during the year.

(ii) *Centralization of Schools.* The question of centralization of schools adopted so successfully in America and Canada has received some attention in Australia, and particularly in New South Wales. It is recognized that a single adequately staffed and well equipped central institution can give more efficient teaching than a congeries of small scattered schools in the hands of less highly trained teachers, and the small schools in some districts were therefore closed and the children conveyed to the central institution. The principle was first adopted in New South Wales in 1904, and in 1931 a sum of £53,332 was expended in boarding allowance and conveyance to central schools. Cost of conveyance to State Schools in Victoria during 1931 was returned as £12,343. In South Australia the sum of £13,964 was disbursed in connexion with travelling expenses of school children in 1931, while £13,666 was spent in Western Australia, and about £5,076 in Tasmania. (It may be pointed out, however, that the parents are often reluctant to part with the small schools which form, as it were, "heart centres" in their little community, while the kindly help of the teachers is a great asset in the social and intellectual life of the districts served by the schools.)

(iii) *Education of Retarded and Defective Children.* This subject was alluded to at some length in preceding issues of the Official Year Book (see No. 22, pp. 431-2), but the information cannot be repeated in this issue.

(iv) *Evening Schools.* Evening Public Schools have been in existence for many years in some of the States, but their progress has been uncertain. In New South Wales the 45 Evening Continuation Schools had an average weekly enrolment in 1931 of 5,464 and an average attendance of 4,386. The schools for boys are classed as commercial,

commercial preparatory, junior technical, and junior technical preparatory, and for girls as domestic and domestic preparatory. Attendances at the schools for boys numbered 3,098, and at those for girls 1,288. The comparatively high proportion of attendance to enrolment shows that the institutions are attractive. In Western Australia evening continuation classes were held at 23 centres in 1930, with an average enrolment of 2,777 pupils, but the classes were discontinued at the end of the year specified, and preparatory technical classes were substituted wherever there was a technical school in operation.

(v) *Higher State Schools.* In all the States higher schools have been established which provide advanced courses of instruction for pupils who have completed the primary grades. Reference to the development of these schools will be found in preceding Official Year Books (see No. 22, pp. 433-4), but considerations of space preclude the repetition of this information herein.

(vi) *Agricultural Training in State Schools.* Extended reference to the methods adopted in the teaching of agriculture in State Schools was incorporated in preceding Official Year Books (see No. 22, pp. 434-7), but considerations of space preclude the repetition of this matter herein.

5. *Teachers.*—The distribution of the teaching staff in the State Schools during the year 1931, including teachers of needlework, was as follows:—

## STATE SCHOOLS.—TEACHING STAFF, 1931.

State.	Principal Teachers.		Assistants.		Pupil or Junior Teachers.		Sewing Mis-tresses.	Total.		
	Males.	Fem.	Males.	Fem.	Males.	Fem.		Males.	Fem.	Total.
New South Wales	2,579	1,054	3,086	6,189	..	..	212	5,665	7,455	13,120
Victoria ..	1,877	850	1,351	3,049	678	1,248	329	3,906	5,476	9,382
Queensland ..	1,138	615	909	1,574	26	37	..	2,073	2,226	4,299
South Australia	732	379	655	1,254	53	122	284	1,440	2,039	3,479
Western Australia	477	393	237	737	30	176	152	744	1,458	2,202
Tasmania ..	233	311	104	438	33	146	3	370	898	1,268
Northern Territory	2	3	2	3	..	2	..	4	8	12
<b>Total ..</b>	<b>7,038</b>	<b>3,605</b>	<b>6,344</b>	<b>13,244</b>	<b>820</b>	<b>1,731</b>	<b>980</b>	<b>14,202</b>	<b>19,560</b>	<b>33,762</b>

The figures for principal teachers include mistresses of departments, while students in training colleges, visiting teachers, and teachers of special subjects have been grouped with assistants. This group also includes in the case of Queensland about 40 junior technical school teachers. Some of the teachers in sole charge of small schools have had very little training, but future permanent appointments will be confined as far as possible to those who have gone through a regular course of instruction.

It will be observed that there is a fairly large number of junior teachers, or pupil teachers, as they are called in some of the States. Although expert pedagogical opinion throughout the world is against the pupil-teacher system, motives of practical expediency compel its retention, or some modification thereof, in most countries.

In New South Wales and in some of the other States attention has recently been drawn to the difficulty of securing an adequate supply of teachers, particularly male teachers for small schools in out-back districts. Difficulty is also experienced in some of the States in securing suitable living accommodation for teachers of these small schools.

6. *Training Colleges.*—The development of the training systems of the various States has been alluded to at some length in earlier issues of the Year Book (see No 22, pp. 437-9), but considerations of space will not permit of its retention herein.

7. *Expenditure.*—(i) *Maintenance—All Schools.* The net expenditure on maintenance in all grades of schools, excepting senior technical schools, and the cost per head of average attendance for the five years ended 1931 are shown below. The figures do not include expenditure on buildings, which is given separately in a

subsequent table. In the case of Queensland allowance has been made in calculating cost per head of average attendance for the number of State scholarship holders attending non-State schools.

STATE SCHOOLS.—EXPENDITURE ON MAINTENANCE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
TOTAL.								
	£	£	£	£	£	£	£	£
1927	3,751,913	2,340,581	1,438,969	743,274	605,704	257,653	4,406	9,142,500
1928	4,004,495	2,464,714	1,471,322	778,715	624,271	266,281	5,153	9,614,951
1929	4,282,083	2,536,674	1,547,076	813,485	633,306	269,202	5,744	10,087,570
1930	3,996,517	2,445,861	1,514,456	792,981	648,508	269,764	5,626	9,673,713
1931	3,781,614	2,145,573	1,168,195	762,934	472,318	227,466	4,471	8,562,571

PER HEAD OF AVERAGE ATTENDANCE.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1927	13 4 7	11 14 6	12 14 6	10 3 2	12 1 5	9 4 11	18 10 2	12 5 4	
1928	13 15 4	12 1 11	12 13 7	10 6 6	12 5 1	9 17 3	21 4 1	12 12 9	
1929	14 6 8	12 4 10	13 6 3	10 13 3	12 10 11	9 12 0	24 17 4	13 0 10	
1930	12 12 10	11 9 7	12 17 11	10 2 0	12 11 4	9 3 6	31 19 4	12 1 4	
1931	11 14 3	9 18 11	9 17 2	9 14 1	8 16 2	7 10 0	15 18 3	10 9 6	

The comparatively large cost of maintenance during the three years 1927-29 was brought about chiefly by the higher salaries and allowances paid to teachers, and the increased expenditure in connexion with the supply of materials and equipment, while the necessity for economy is reflected in the considerable drop in the total and average expenditure for 1930 and 1931. In New South Wales the heavy fall was occasioned by reductions in teachers' salaries and curtailment of maintenance expenditure generally. Savings in maintenance costs were effected in various ways in the other States mentioned, e.g., South Australia, where considerable reductions were made in salaries and administration, and further general reductions were effected in 1931, the total for the year being considerably over a million lower than that for 1930.

(ii) *Maintenance—Secondary Schools.* The figures given in the preceding table refer to expenditure on maintenance of all State primary and secondary schools, exclusive of technical colleges. It has been thought desirable by the State Education Departments to give separate information in regard to the cost of secondary education. Any satisfactory estimate of this nature is, however, rendered difficult by the circumstance that there is no exactly comparable definition of the term "secondary" as applied in the various States, while difficulties arise in connexion with the correct apportionment amongst the various branches of expenses of administration, inspection, and the training of teachers. A further complication is caused by the fact that both elementary and higher education are in some instances given in the same school and by the same teacher. The figures quoted in regard to cost hereunder have been extracted from the Reports of the State Education Departments, and are subject to the qualifications above enumerated.

STATE SECONDARY SCHOOLS.—EXPENDITURE ON MAINTENANCE, 1931.

	State.					Cost.	Cost Per Head of Population.
						£	s. d.
New South Wales .. .. .	..	..	..	..	..	547,193	4 4
Victoria .. .. .	..	..	..	..	..	308,010	3 5
Queensland .. .. .	..	..	..	..	..	131,544	2 9
South Australia .. .. .	..	..	..	..	..	110,453	3 9
Western Australia .. .. .	..	..	..	..	..	138,060	5 10
Tasmania .. .. .	..	..	..	..	..	19,063	1 9

The figures in all cases are exclusive of cost of buildings. In the case of Victoria the total includes the expenditure on "intermediate" education amounting (excluding administration costs) to £90,446. For Queensland, the figure quoted does not include the cost of the Agricultural High School and College, which amounted in 1931 to £20,341. For Western Australia the total includes £79,190 on account of "post primary" education. The figures for South Australia as published by the Department in 1931 differ somewhat from those given in previous years, owing to the inclusion in the returns for 1931 of portion of the cost of higher primary education, and to a different system of allocation of expenditure on scholarships.

(iii) *Buildings.* Expenditure on school buildings exclusive of Technical Colleges in each of the years quoted was as follows:—

## STATE SCHOOLS.—EXPENDITURE ON BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
1927	668,412	578,691	98,905	156,520	53,506	21,751	..	1,577,785
1928	1,004,252	398,939	143,995	102,477	68,957	44,150	..	1,762,770
1929	772,296	360,262	127,504	111,137	76,025	32,801	..	1,480,025
1930	488,776	114,826	110,196	68,006	63,578	23,065	920	869,367
1931	416,217	43,817	44,462	22,471	56,267	10,719	122	594,075

The large increases in expenditure shown in several instances up to the year 1928 were due to the efforts made to overtake arrears in necessary buildings and repairs, while the growing necessity for economy is reflected in the figures for the last three years.

(iv) *Total.* The net total cost during the year 1931 was as follows:—

## STATE SCHOOLS.—NET TOTAL COST, 1931.

Item.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
Net cost of education, including buildings	4,197,831	2,189,390	1,212,657	785,405	528,585	238,185	4,593	9,156,646

The figures in this and the preceding tables refer to all grades of State Schools (with the exception of senior technical schools). Including buildings, the net cost per scholar in average attendance for the whole of the State schools in Australia amounted in 1931 to £11 4s. 1d., as compared with £4 9s. 3d. in 1901.

8. *School Savings Banks.*—In New South Wales the control of these institutions was taken over in 1924 by the Government Savings Bank, which allows interest on the children's deposits. At the 30th June, 1931, there were 142,746 depositors having at credit £184,377. In Victoria banks were in operation at 2,556 schools at the 30th June, 1932. On the same date the number of depositors amounted to 170,839 and balances at credit to £283,786. School Savings Banks began operations in Queensland in July, 1928, and at the 30th June, 1931, there were 959 banks, with 53,547 depositors, and balances amounting to £45,893. In South Australia, there were 73,000 depositors in 1931 at 1,092 banks with £96,042 to their credit; and in Western Australia, there were 719 school banks, with 57,042 depositors and £78,430 to their credit.



## § 3. Private Schools.\*

1. Returns for 1931.—The following table shows the number of private schools, together with the teachers engaged therein, and the enrolment and average attendance in 1931 :—

PRIVATE SCHOOLS, 1931.

State.	Schools.	Teachers.	Enrolment.	Average Attendance.
New South Wales .. .. .	733	4,708	92,285	78,435
Victoria .. .. .	505	2,286	66,671	56,670
Queensland .. .. .	195	1,259	30,644	26,500
South Australia .. .. .	179	886	13,994	12,714
Western Australia .. .. .	128	553	11,367	10,515
Tasmania .. .. .	65	298	6,327	4,749
Northern Territory .. .. .	1	5	99	82
Total .. .. .	1,806	9,995	221,387	189,665

The figures for Queensland include the returns from Grammar Schools, of which there are ten—six for boys and four for girls, with an enrolment of 1,526 boys and 860 girls. These schools are governed by boards of trustees, partly nominated by Government, and partly by the subscribers to the funds. The trustees make regulations regarding the fees of scholars, the salaries of teachers, and generally for the management of the schools. The Government endowment received in 1931 amounted to £15,942. In addition, a sum of £15,946 was received by way of fees for the tuition of State scholarship holders. The Grammar schools are inspected annually by officers of the Department of Public Instruction. In the Northern Territory there is a privately conducted school for natives and half-castes at Hermannsburg Mission Station with an enrolment of 90. Returns regarding this institution have not been included in the preceding table.

2. Growth of Private Schools.—The enrolment and average attendance at private schools during 1891, 1901, 1911, and in each year of the period 1927 to 1931 are as follows :—

PRIVATE SCHOOLS.—ENROLMENT AND ATTENDANCE.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891 .. .. .	124,485	99,588	1928 .. .. .	237,713	184,464
1901 .. .. .	148,659	120,742	1929 .. .. .	242,077	189,018
1911 .. .. .	160,794	132,588	1930 .. .. .	242,024	193,691
1927 .. .. .	235,074	181,396	1931 .. .. .	221,387	189,665

The increase in average attendance at private schools during the last five years amounted to about 4.6 per cent., or only half the rate for the State schools during the same period.

3. Registration of Private Schools.—Conditions in regard to the registration of private schools were alluded to in previous Year Books (*vide* No. 18, p. 451), but considerations of space preclude the repetition of this information in the present issue.

\* Private schools include all schools not wholly under State control. The term "private," though popularly applied, is, of course, a misnomer.

### § 4. Free Kindergartens.

The following information regarding Free Kindergartens has been compiled from particulars supplied by the principals of the chief institutions or the organizing secretary in each State, except in the case of Western Australia, the details for which were furnished by the Education Department.

#### FREE KINDERGARTENS, 1932.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales ..	16	910	30	61	60
Victoria .. ..	30	1,801	74	59	415
Queensland .. ..	6	(a)320	10	20	16
South Australia ..	9	361	13	28	22
Western Australia (Perth) ..	7	314	15	6	10
Tasmania .. ..	4	126	6	7	..
Total .. ..	72	3,832	148	181	523

(a) Estimate.

The kindergartens in New South Wales are all in the metropolitan area, but there is a Kindergarten Holiday Home at Thirroul at which a small staff is maintained for the purpose of looking after delicate children sent to the Home to recuperate. In Victoria, the schools at Ballarat and Geelong were attended by about 50 children respectively in 1932. In New South Wales there were 117 students at the Kindergarten Training College. At the Melbourne College, 45 students were in training. The Brisbane Training College had 20 students in training, the Training College at Adelaide 41, and at Perth, 18. Seven students were in training at Hobart.

The information given above refers to institutions under private kindergarten unions or associations, and is exclusive of the kindergarten branches in the Government schools of the various States.

### § 5. Universities.

1. **Origin and Development.**—A brief account of the origin and development of the Universities in the various States is given in preceding issues of the Official Year Book (see No. 22, pp. 442-3), but this information cannot be repeated herein.

2. **Teachers and Students.**—The following table shows the number of professors and lecturers, and the students in attendance at each of the State Universities during the year 1931 :—

#### UNIVERSITIES.—TEACHERS AND STUDENTS, 1931.

University.	Professors.	Lecturers and Demonstrators.	Students attending Lectures.		
			Matriculated.	Non-matriculated.	Total.
Sydney .. ..	48	170	2,657	366	3,023
Melbourne .. ..	34	188	..	..	(a) 2,858
Queensland (Brisbane) ..	14	44	663	136	799
Adelaide .. ..	18	111	1,192	900	(b)2,092
Western Australia (Perth) ..	14	41	724	85	809
Tasmania (Hobart) ..	9	12	195	54	(c)249

(a) Exclusive of 243 students at Conservatorium of Music.

(b) Exclusive of 336 students at

Conservatorium of Music. (c) Exclusive of 228 students attending tutorial classes or extension lectures.

The Conservatorium in Sydney, while attached to the Education Department, is not under the control of the University. The enrolment of students for the year 1931 was 924.

3. **University Revenue.**—The income of the Universities from all sources during the year 1931 was as shown in the table below. The figures in the column "private foundations" refer to income received from foundations, the cash value of benefactions received during the year being shown separately in the appended note.

UNIVERSITIES.—REVENUE, 1931.

University.	Government Grants.		Fees.	Private Foundations. (a)	Other.	Total.
	Endowment.	Other.				
	£	£				
Sydney .. ..	28,800	32,696	59,606	112,585	13,133	246,820
Melbourne .. ..	58,068	11,308	96,807	31,050	15,634	212,867
Queensland (Brisbane)	18,000	2,695	18,317	24,437	3,681	67,130
Adelaide .. ..	4,000	(b)47,067	28,493	19,885	9,120	108,565
Western Australia (Perth) .. ..	27,900	..	3,743	20,239	4,037	55,919
Tasmania (Hobart)	4,000	9,418	2,940	2,363	385	19,106
<b>Total .. ..</b>	<b>140,768</b>	<b>103,184</b>	<b>209,906</b>	<b>210,559</b>	<b>45,990</b>	<b>710,407</b>

(a) Not including value of new foundations received during the year as follows:—New Wales South £27,636; Victoria, £28,050; South Australia, £584. (b) Including £14,100 yearly parliamentary appropriation and £32,967 special vote.

In preceding issues of the Official Year Book information was given in some detail in regard to the extent to which the Universities have benefited from private munificence. Space will permit of reference to the most important benefactions only herein. Thus the Challis bequest to the Sydney University amounted to £277,000 (now valued at £408,000): Mr. G. H. Bosch contributed £240,000: Sir P. N. Russell £100,000: Mr. W. O. Watt £81,000: Mr. Thos. Fisher £30,000. Mr. Sidney Myer's gifts to the Melbourne University amounted to £50,000, while Sir Samuel Gillott, Mr. Edward Wilson (Argus Trust), and Sir Samuel Wilson contributed £41,000, £34,000, and £30,000 respectively. Mr. R. B. Ritchie's gifts for the endowment of a Chair of Economics amount to £30,000, and a similar sum was received from the Supreme Court Library Fund for the endowment of a Chair of Public Law. The Hon. Francis Ormond contributed £20,000 to the University as well as benefactions to Ormond College amounting to considerably over £100,000. Queensland University received about £200,000 from the McCaughey estate, and up to the end of April, 1931, had benefited to the extent of £26,800 from the Walter and Eliza Hall Trust. The chief benefactors to Adelaide University were Sir Thomas Elder, £99,000; Sir Langdon Bonython, £62,000; Mr. T. E. Barr Smith £30,000; Mrs. Jane Marks, £30,000; Family of John Darling, £25,000; and R. B. Smith and family, £21,000. Several very valuable properties, in addition to shares which produced a sum of £58,450, were also bequeathed to this University by Mr. Peter Waite. Under the will of Sir Winthrop Hackett the University of Western Australia received £425,000, while the late Robert Gladden bequeathed an estate valued at £60,000.

4. **University Expenditure.**—For the year 1931 the expenditure by the Universities under various headings was as follows :—

## UNIVERSITIES.—EXPENDITURE, 1931.

University.	Salaries and Administration.	Scholarships, Bursaries, etc.	Equipment Publications, &c.	Buildings and Grounds.	Other.	Total.
	£	£	£	£	£	£
Sydney .. ..	157,741	7,022	32,110	(a)19,616	414	216,903
Melbourne .. ..	122,853	7,850	13,057	(b)14,016	35,239	193,015
Queensland (Brisbane) ..	31,833	1,414	3,533	(c) 735	20,462	57,977
Adelaide .. ..	56,013	1,236	(d)20,696	(e) 2,088	22,937	102,970
Western Australia (Perth)	28,388	7,733	4,392	(f)45,602	5,304	91,419
Tasmania (Hobart) ..	13,994	1,264	3,451	630	..	19,339
<b>Total .. ..</b>	<b>410,822</b>	<b>26,519</b>	<b>77,239</b>	<b>82,687</b>	<b>84,356</b>	<b>681,623</b>

(a) Including £17,047, new expenditure. (b) Includes new expenditure, £8,931. (c) New expenditure, £481. (d) Research. (e) New Expenditure. In addition a sum of £19,189 was spent from Endowment Fund. (f) New expenditure, £44,437.

5. **University Extension.**—Some account of the initiation and progress of university extension is given in preceding Official Year Books (see No. 22, p. 446), but considerations of space preclude the insertion of this matter in the present issue.

6. **The Canberra University College.**—The question of the establishment of a University at the Federal Capital is still under consideration, and in the meantime a University College has been established under the *Canberra University College Ordinance*, 1929–32. By virtue of a regulation of the University of Melbourne, the College is empowered to provide approved lectures in the subjects of the Arts, Science, Commerce, and Law courses in preparation for certain degrees and diplomas of that University. Lectures commenced in 1930 with the aid of several part-time lecturers, and 30 students were enrolled during the year. The curriculum was extended in 1931 and two full-time lecturers were appointed. In 1931 and 1932 the students numbered 62 and 61 respectively. The examinations are conducted by the University of Melbourne.

7. **Workers' Educational Association.**—In 1913, Workers' Educational Associations were formed in all the States of Australia, and later in New Zealand. The movement has for its object the bringing of the University into closer relationship with the masses of the people, and thereby providing for the higher education of the workers in civic and cultural subjects. There are now direct grants from all State Governments except Western Australia, and an additional University grant in New Zealand. The particulars of grants for classes in 1932 were as follow :—New South Wales, £3,800, 36 classes and 3 study circles; Victoria, £3,450, 34 tutorial classes and extension work; Tasmania, £1,135, 5 classes; South Australia, £2,025, 6 tutorial classes and 23 lecture classes and 6 study circles; Queensland, £1,000, 11 classes and 118 correspondence students. In addition, the New South Wales Association receives a Government grant for general organizing purposes of £500, paid on the basis of £1 for £1 on subscriptions and donations up to this amount. The Queensland and South Australian Associations received grants of £600 and £240 respectively. The Carnegie Corporation has in recent years shown its interest in the work by allotting substantial grants to the Associations and to the Universities. The principal subjects chosen in all States are Industrial History, Economics, Political Science, and Sociology, but there is an increasing number of classes in other subjects such as History, Psychology, Philosophy, Literature, Music, Physiology and Biology. Each University co-operates with the W.E.A. in the formation of a joint committee for tutorial classes, which supervises the work with the assistance of a University officer with the title of *Director of Tutorial Classes*. In addition to the longer University tutorial classes, many preparatory classes, study circles, and summer schools are organized by the Association, numerous courses of public lectures are delivered, educational conferences promoted, and an extensive book service is spreading educational literature throughout Australia.

### § 6. Technical Education.

1. **General.**—Although provision has been made in all of the States in respect to many necessary forms of technical education; the total provision made would imply that this branch of education has not been regarded as of outstanding importance. As will be seen later on, the expenditure on technical education for the whole of Australia is comparatively small. In preceding issues of the Official Year Book an outline was given of the origin and development of technical education in each State (see No. 22, pp. 447-51), but considerations of space preclude the inclusion of more up-to-date information in later volumes.

2. **Returns for Year 1931.**—Returns for the year 1931 in regard to enrolments and attendances, etc., in each State are given in the table hereunder.

#### TECHNICAL EDUCATION.—ENROLMENTS, ETC., 1931.

State.	Number of Classes.	Teachers.	Enrolments.	Average Attendance.	Fees Received.
					£
New South Wales ..	747	574	(a) 15,152	(b)	(c) 34,228
Victoria ..	320	628	16,224	11,463	36,024
Queensland ..	(b)	366	11,690	(b)	13,895
South Australia ..	636	211	10,564	8,376	7,983
Western Australia ..	447	116	(d) 9,060	8,032	2,583
Tasmania(e) ..	(b)	58	759	667	1,455
<b>Total ..</b>	<b>2,150</b>	<b>1,953</b>	<b>63,449</b>	<b>..</b>	<b>96,168</b>

(a) Individual Students. fees approximately, £23,000.

(b) Not available.

(c) Includes receipts from other sources: average enrolments: individual students, 4,067.

(e) Includes the School of Mines.

Figures for earlier years will be found in preceding volumes. Owing to the considerable differences in scope and methods in the States, and in the presentation of the returns in connexion therewith, effective comparison of the results is somewhat difficult. With regard to the figure quoted for number of classes in Victoria, it is stated that each grade of a subject is counted as a class. Special classes for young people out of work were conducted in 1931 in New South Wales, payment of fees being deferred. In Victoria, fees have been remitted in the case of deserving students under the provisions of regulations empowering school councils to grant remissions up to 10 per cent. of the number of paying students. Towards the end of the year, the Education Department in Queensland in conjunction with the Department of Labour and Industry established a series of free classes in various centres for unemployed young men and women.

3. **Expenditure on Technical Education.**—The expenditure on technical education in each State for the year 1931 is shown below:—

#### TECHNICAL EDUCATION.—EXPENDITURE, 1931.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1931 { (a)	175,598	258,938	65,593	(c) 90,912	17,867	19,026	627,934
{ (b)	3,442	1,925	2,323	475	387	179	8,731

(a) Maintenance.

(b) Buildings.

(c) Includes Junior Technical Schools.

The expenditure on maintenance for technical education in 1931 amounted to 1s. 11d. per head of the population of Australia, as compared with 26s. 4d. per head expended on maintenance for primary and secondary education.

### § 7. Business Colleges and Shorthand Schools.

There has been a considerable development in recent years both in the number and scope of privately conducted institutions which aim at giving instruction in business methods, shorthand, typewriting, the use of calculating machines, etc. Particulars for all States, so far as they are available, are given in the following table:—

#### BUSINESS COLLEGES, SHORTHAND SCHOOLS, ETC., 1931.

State.	Schools.	Teachers.	Students Enrolled.		Average Attendance.		Fees Received.
			Males.	Females.	Males.	Females.	
New South Wales ..	25	180	1,573	4,481	837	2,403	£ (a)
Victoria ..	16	127	2,375	2,082	2,212	1,787	(a)
Queensland ..	7	23	186	637	139	557	(a)
South Australia ..	7	31	659	983	519	459	8,948
Western Australia ..	12	50	2,428	1,006	(a)	(a)	22,758
Tasmania ..	3	12	75	184	67	174	(a)
Total ..	70	423	7,296	9,373	(b) 3,774	(b) 5,380	..

(a) Not available.

(b) Exclusive of Western Australia.

The figures for New South Wales are exclusive of students instructed at home through the medium of correspondence classes.

### § 8. Diffusion of Education.

1. **General Education.**—A rough indication of the state of education of the people is obtained at each Census under the three headings, "read and write," "read only," and "cannot read." Particulars for each State and Territory were included in previous issues of the Official Year Book (see No. 19, p. 439). Detailed tables dealing with various aspects of education were published in connexion with the Census of 1921. Here it must suffice to mention that during the period 1871 to 1921 the proportion per 10,000 of the population of Australia able to read and write advanced from a little over 6,000 to nearly 8,500, while that of those able to read only fell from about 1,100 to under 30.

2. **Education as shown by Marriage Registers.**—Another common method of testing the spread of education is to compare the number of mark signatures in the marriage registers with the total number of persons married during each year of a series. The percentage signing with a mark on the total persons married in the Census year 1921 was only 0.17, as compared with 24.60 in 1861.

### § 9. Miscellaneous.

1. **Scientific Societies.**—(i) *Royal Societies.* In previous issues of the Official Year Book an outline was given of the origin and progress of the Royal Society in each State (see No. 22, pp. 454-5), but considerations of space preclude the retention of this matter in the present volume. The accompanying table, however, contains the latest available statistical information regarding these institutions, which in every case have their headquarters in the capital cities.

#### ROYAL SOCIETIES—PARTICULARS, 1932.(a)

Heading.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
Year of origin ..	1821	1854	1884	1853	1897	1843
Number of members ..	288	198	180	167	203	200
Vols. of transactions issued	66	74	44	56	18	82
Number of books in library	31,000	18,000	6,000	6,300	3,400	17,000
Societies on exchange list ..	303	314	177	225	140	300
Income ..	..£ 1,451	463	154	311	211	238
Expenditure ..	..£ 1,929	346	236	334	183	238

(a) The Royal Society of Australia, with headquarters at Canberra, was founded on the 25th July, 1930, and received permission to use its title on the 14th January, 1931. The members, including associates, numbered 62 in 1932. Receipts and expenditure for the year amounted to £36 and £12 respectively.

In connexion with the year of origin it may be pointed out that the title Royal Society was in most cases assumed at a later date than that shown in the table, as the Societies originated under different names.

(ii) *The Australasian Association for the Advancement of Science.* This Association was founded in 1887, with headquarters at the Royal Society's House in Sydney. Its meetings are usually held biennially within the various States and in the Dominion of New Zealand. The next meeting will be held in Melbourne in January, 1935. The library of the Association contains 4,000 volumes, and is now housed by the Council for Scientific and Industrial Research.

(iii) *Other Scientific Societies.* The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874. The soundness of its present position is due to the benefactions of Sir William Macleay, who during his lifetime and by his will endowed the Society to the amount of £67,000, which has been increased by judicious investment to over £80,000. The Society maintains a research bacteriologist and offers annually 4 research fellowships in various branches of natural history. Four fellowships were awarded in 1932. The library comprises some 14,000 volumes, valued at about £7,000. Fifty-seven volumes of proceedings have been issued, and the Society exchanges with some 228 kindred institutions. The ordinary membership at the end of 1932 was 180.

The British Astronomical Society has a branch in Sydney, and in some of the States the British Medical Association has branches.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.

2. **Public Libraries.**—(i) *States.* In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere. The following statement gives the number of volumes in the Public Library of each capital city:—

**METROPOLITAN PUBLIC LIBRARIES, 1931-32.**

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Sydney(c) .. .. .	(a) 379,040	(b) .. .. .	74,146	453,186
Melbourne .. .. .	388,233	63,739	.. .. .	451,972
Brisbane .. .. .	57,428	.. .. .	.. .. .	57,428
Adelaide(c) .. .. .	161,179	81,617	.. .. .	242,796
Perth(c) .. .. .	138,867	.. .. .	(d) 23,042	161,909
Hobart .. .. .	29,252	(e) 7,771	.. .. .	37,023

(a) Including the Mitchell Library. (b) The maintenance and control of the ordinary lending branch of the Public Library at Sydney were transferred in 1908 to the Municipal Council. In 1931, the books numbered 53,508. (c) Year ended June, 1932. (d) Includes 4,289 volumes in School Childrens' Lending Library. (e) Includes 1,500 volumes in the Children's Branch.

In connexion with the Country Lending Branch of the Sydney Public Library, it may be noted that books are forwarded on loan to State schools, to approved associations, to Schools of Art and to individual students. During the year 1931-32, over 78,000 books were lent to small State schools, 13,000 to Schools of Arts, 6,200 to branches of the Teachers' Federation, 3,400 to Agricultural Bureaux, and 44,000 to individual borrowers.

A special research staff attached to the Public Library gives valuable assistance in making readily available to inquirers the store of information contained in books, etc., which, owing to limitations of space, are not in open access. About 8,000 books, and nearly 2,500 periodicals were added to the library in 1931-32.

The Mitchell Library in Sydney consisted of over 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia, valued at £100,000, and bequeathed in 1907 by Mr. D. S. Mitchell, together with an endowment of £70,000. The testators stipulated that the regulations of the British Museum were to be adopted as far as practicable, hence the library is the resort of specialists. There are now over 128,000 volumes in the library in addition to valuable manuscripts, collections of Australian postage and fiscal stamps, and various pictures, coins, etc.

Amongst other important libraries in New South Wales may be mentioned the "Fisher" Library at Sydney University, with 199,500 volumes; the library at the Australian Museum, 27,300; the Teachers' College library, 41,600; Sydney Technical College library, 16,000; and the library at the Botanic Gardens, 10,100.

The reading room at the Melbourne Public Library ranks among the finest in the world. It was opened in 1913, and has a diameter of 114 feet, with a similar height, and is capable of seating 320 readers at a time, all of whom are under efficient supervision from the centre of the room. The Library forwards volumes on loan to Mechanics' Institutes and Free Libraries, and to individual borrowers in the country. During the year 1930-31 the volumes added to the Reference branch by purchase, donation, etc., numbered 11,837, while additions to the lending branch numbered 1,708.

The library at Brisbane (South) contained about 14,500 volumes at the end of June, 1931.

For some years past efforts have been made in South Australia to collect original documents likely to be of service in compiling a history of the State. So far back as 1914, Professor Henderson, of Adelaide University, under commission from the South Australian Government, visited and reported on the system of keeping archives in England, France, Belgium, Holland, and Ceylon, and obtained valuable information also from the United States and Canada. A department of historical documents has been created under the care of an archivist, and valuable work has been done in connexion with examination, classification, and permanent preservation of the available papers. A suitable building for housing the documents and the staff was provided in 1921. At the 30th June, 1932, the collection numbered 291,353 documents, 12,865 views, and 1,253 maps.

For the year ended 30th June, 1922, accessions to the Public Library at Perth numbered 1905 books and 243 periodicals.

During 1922 the Tasmanian Public Library adopted the plan of lending books to individual country borrowers and to families or committees of residents in country districts. The Public Library at Launceston contains 36,000 volumes. Books added to the Public Libraries at Hobart and Launceston during the year 1931 numbered 1,000 and 1,025 respectively.

Statistics in regard to other libraries are not available for all States, while the information supplied is not in all cases complete. Returns for Victoria in 1931 showed a total of 420 libraries in receipt of State or municipal aid, but statistics are now only collected from institutions in Greater Melbourne and the chief extra metropolitan towns. The 75 libraries from which returns were received contained a total of about 481,000 volumes. Queensland returned 259 libraries, with 530,000 books; South Australia, 215 suburban and country institutes with 602,000 books; Tasmania, 20 libraries and 68,000 books; while there were 3 libraries, with 6,000 books, in the Northern Territory.

(ii) *Commonwealth*—(a) *Parliamentary and National Library*. When the Commonwealth Parliamentary Library was created in 1902, it was recognized that at such time as the Federal Capital was established it would be necessary to have available there, for the use of members and the public servants, a library whose scope was wider than that usually associated with a purely Parliamentary one. To this end, therefore, this library was developed on lines similar to those of a State Public Library, and particular attention was given to the acquisition of works relating to or published in Australia.



In pursuance of this policy it acquired in 1909 a valuable collection of *Australiana*, comprising about 10,000 volumes and 6,500 pamphlets and other matter which had been formed by Mr. E. A. Petherick. In 1912, also, a provision was included in the Commonwealth Copyright Act requiring the publisher of any book, pamphlet, etc., printed in the Commonwealth to supply a free copy to this library. In the same year it undertook the publication of the Historical Records of Australia, and 34 volumes were issued before publication was temporarily suspended in 1926. The rapid development of the Australian and National Sections of the library led the Library Committee in 1923 to decide that the title "Commonwealth National Library" should be given to these, and that at Canberra the library should be divided into two sections—a Parliamentary and a National Section—the former to be housed in Parliament House, the latter in a separate building, to which the public would be given free access. As the accommodation for the National Section is not at present available, the whole library is maintained at the Parliament building, but to meet the requirements of University students and the general public the privileges of the Library have been extended to them in respect to borrowing as well as reference.

The total number of volumes at the beginning of 1932 was 99,669 books and 7,000 pamphlets, the chief feature being a unique collection of Captain Cook's manuscripts and early works relating to Australia, also an extensive series of official publications of Great Britain and all the Dominions.

(b) *Patents Office Library.* The free library attached to the Commonwealth Patents Office contains over 46,000 volumes, and includes literature dealing with patents in the principal countries of the world. This library is now situated in Canberra.

3. **Public Museums and Art Galleries.**—Previous issues of the Official Year Book contained a brief description of the public museums and art galleries in each State (see No. 22, pp. 457-9), but considerations of space preclude the incorporation of this matter in the present volume.

4. **State Expenditure on Education, Science and Art.**—The gross and net expenditure in each State on education, science and art during the year 1931-32 were as follow:—

**STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART, 1931-32.**

State.	Expenditure from—				Receipts.	Net Expenditure.
	Revenue.	Loan.	Other Funds.	Total.		
	£	£	£	£	£	£
New South Wales	4,175,204	43,124	50,662	4,268,990	68,480	4,200,510
Victoria ..	2,607,024	3,354	8,364	2,618,742	62,125	2,556,617
Queensland ..	1,424,354	39,787	..	1,464,141	13,951	1,450,190
South Australia ..	869,218	14,823	6,047	890,088	20,437	869,651
Western Australia	614,254	..	8,817	623,071	16,434	606,637
Tasmania ..	253,818	401	..	254,219	763	253,456
Total ..	9,943,872	101,489	73,890	10,119,251	182,190	9,937,061

In the case of New South Wales, repayments to credit of votes of previous years have not been taken into account, and expenditure in connexion with agriculture, agricultural and viticultural colleges, and agricultural, pastoral, and horticultural societies has been excluded. The total receipts in Victoria include an amount of £37,273 expended by the Councils of technical schools, and which may be considered as not necessarily a set-off to the total expenditure. Figures for expenditure in South Australia include a sum of about £6,000 in connexion with sinking funds. The amount of £50,662 expended in New South Wales under the heading of "other" funds represents payments from the Unemployed Relief Fund.

## CHAPTER IX. PUBLIC JUSTICE.

### § 1. Police.

1. **General.**—In early issues of the Year Book a résumé was given of the evolution of the police force in Australia up to the passing of the Police Act of 1862 (25 Vic. No. 16) in New South Wales, but considerations of space preclude its inclusion in the present volume.

2. **Strength of Police Force.**—(i) *General.* The strength of the police force in each State during the five years ended 1931 is given in the table hereunder. It may be mentioned that the police forces (with the exception of the small body of Commonwealth police maintained in the Northern Territory and at the Federal Capital) are entirely under State control, but, by arrangement, the Commonwealth Government utilizes their services in various directions, such as the collection of particulars for Commonwealth electoral rolls, etc.

#### POLICE FORCES.—STRENGTH.

State.	Area of State in Sq. Miles.	1927.	1928.	1929.	1930.	1931.
New South Wales ..	309,432	3,109	3,444	3,631	3,709	3,653
Victoria ..	87,884	1,977	2,112	2,141	2,115	2,107
Queensland ..	670,500	1,191	1,125	1,229	1,236	1,233
South Australia ..	380,070	716	801	784	762	742
Western Australia	975,920	541	549	581	562	573
Tasmania ..	26,215	246	239	237	252	261
Northern Territory	523,620	39	39	42	41	40
Fed. Cap. Territory	940	13	13	13	13	13
<b>Total ..</b>	<b>2,974,581</b>	<b>7,832</b>	<b>8,322</b>	<b>8,658</b>	<b>8,600</b>	<b>8,622</b>

The figures for New South Wales for 1931 are exclusive of 21 "black trackers," i.e., natives employed in detection of offenders chiefly in outlying districts, and 4 matrons, while the Victorian returns are exclusive of 3 matrons and 2 black trackers. For Queensland the figures exclude 68 native trackers and 1 female searcher; for South Australia 2 black trackers and 1 female searcher, and for the Northern Territory 23 "black trackers." There are also 44 "black trackers" and 4 female searchers in Western Australia, not included in the table. According to the returns, women police are employed in all the States, the respective numbers being—New South Wales 8, Victoria 8, Queensland 2, South Australia 11, Western Australia 5, and Tasmania 1. Their work is mainly preventive, and the importance and usefulness of their duties have been referred to in very high terms by the Commissioners of Police.

(ii) *Proportion to Population.*—The average number of inhabitants to each officer in each State during the same period is as follows. In considering these figures, allowance must, of course, be made for the unequal area and unequal distribution of the population of the various States.

#### POLICE FORCES.—COMPARISON WITH POPULATION.

State.	Number Persons per Sq. Mile, 1921 Census.	Inhabitants to each Police Officer.				
		1927.	1928.	1929.	1930.	1931.
New South Wales ..	6.80	772	710	682	674	686
Victoria ..	17.42	881	834	830	847	855
Queensland ..	1.13	755	815	757	767	782
South Australia ..	1.30	804	723	740	764	788
Western Australia	0.34	725	739	717	748	736
Tasmania ..	8.15	877	906	924	875	856
Northern Territory	..	112	102	106	113	111
Fed. Cap. Territory	..	441	622	637	657	672
<b>Total ..</b>	<b>1.83</b>	<b>796</b>	<b>761</b>	<b>741</b>	<b>745</b>	<b>757</b>

The above figures show, therefore, that the rate of protection maintained for Australia as a whole has remained fairly constant.

3. **Duties of the Police.**—In addition to the ordinary employment attaching to their office, the police are called upon to perform many duties which in other countries are carried out by various functionaries. Thus, in New South Wales, according to the Report of the Inspector-General, the time of one-fifth of the force was taken up during 1921 in extraneous duties unconnected with the protection of life and property, while the cash value of the services rendered to other Government departments was stated as over £200,000 per annum. The Queensland Commissioner refers to the circumstance that in 1930 no less than 72 subsidiary offices were held by the police. In South Australia, the Commissioner alludes to the large number of subsidiary duties performed by police officers, and mentions that for the year ended June, 1932, nearly 245,000 inquiries were made on behalf of other departments. While these special tasks doubtless involve some degree of sacrifice of ordinary routine duties, the fact that the general intelligence of the police is adequate for their performance, besides being most creditable, results in a large saving of the public money.

4. **Cost of Police Forces.**—The expenditure from Consolidated Revenue on the police forces in each State, and the cost per head of population during the five years 1927-28 to 1931-32, are given in the following table:—

<b>POLICE FORCES.—COST.</b>					
State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>TOTAL.</b>					
	£	£	£	£	£
New South Wales ..	1,364,609	1,749,575	1,863,021	1,811,469	1,430,933
Victoria ..	894,121	917,454	921,383	850,372	783,390
Queensland ..	571,706	595,490	596,057	550,473	499,330
South Australia ..	275,342	315,338	327,572	323,541	294,244
Western Australia ..	220,511	236,332	250,200	237,996	207,653
Tasmania ..	91,645	93,609	96,214	93,732	80,505
<b>Total ..</b>	<b>3,417,934</b>	<b>3,907,798</b>	<b>4,054,447</b>	<b>3,867,583</b>	<b>3,295,155</b>
<b>PER HEAD OF POPULATION.</b>					
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
New South Wales ..	11 4	14 4	15 0	14 6	11 4
Victoria ..	10 3	10 5	10 4	9 6	8 8
Queensland ..	12 9	13 0	12 10	11 7	10 4
South Australia ..	9 7	10 11	11 3	11 1	10 1
Western Australia ..	11 3	11 8	12 0	11 4	9 10
Tasmania ..	8 6	8 8	8 9	8 7	7 3
<b>Total ..</b>	<b>11 0</b>	<b>12 4</b>	<b>12 8</b>	<b>12 0</b>	<b>10 1</b>

The totals quoted above refer exclusively to the State police forces, and are based on returns supplied by the States for the respective financial years. As shown in the first table in this chapter, the Commonwealth Government maintains small police forces in the Northern Territory and in the Federal Capital Territory, the expenditure on which in 1931-32 amounted to £20,764 and £4,500 respectively.

5. **Interstate Police Conferences.**—In February, 1921, a Conference of the chief officers of the police forces of the various States was held in Melbourne. In addition to the discussion of matters of common interest, arrangements were made for the interchange of detectives. The results were so satisfactory that it was decided to hold similar Conferences annually. Amongst other matters discussed at the Hobart

Conference in 1927, particular attention was given to the subject of traffic regulation in view of the large and increasing number of motor vehicles. The Conference was held at Melbourne in 1928, and at Perth in 1929. Owing to the need for economy meetings were not held in 1930 and 1931, and the usual interchange of detectives was not carried out during these years.

**§ 2. Lower (Magistrates') Courts.**

1. **General.**—In considering the criminal returns of the various States, due allowance must be made on account of several factors, such as the relative powers of the courts, both lower and higher, etc. In the case of lower courts, the actual number of laws in each State the breach of which renders a person liable to fine or imprisonment must be taken into account. Again, the attitude of the magistracy and police towards certain classes of offences is a factor, for in the case of liquor laws, or laws connected with vagrancy or gaming, the views of the magistrates, and instructions issued to the police, may be responsible for considerable variations in the returns. The strength and distribution of the police forces, and the age-constitution and distribution of the States' population, also influence the results. Due weight should also be given to the prevalence of undetected crime, but information on this point is not available for all States. It may be mentioned that each State has its own separate judicial system, the Commonwealth jurisdiction being confined to the High Court of Australia, which is largely a Court of Appeal intermediate to the Privy Council, although it has also original jurisdiction, and the Commonwealth Court of Conciliation and Arbitration and the Federal Court of Bankruptcy. Full particulars regarding the judicial power of the Commonwealth will be found in Chapter III. of the Commonwealth Constitution.

2. **Powers of the Magistrates.**—Preceding issues of the Official Year Book contained a brief statement of the powers of the magistrates in the various States (see No. 22, page 462), but it is not proposed to repeat this information in the present volume.

3. **Persons Charged at Magistrates' Courts.**—The total number of persons who were charged before magistrates in each State is given below for the five years 1927 to 1931 :—

**MAGISTRATES' COURTS.—PERSONS CHARGED.**

State.	1927.	1928.	1929.	1930.	1931..
New South Wales .. ..	124,030	137,079	132,439	124,538	121,743
Victoria .. ..	67,276	60,562	58,097	56,749	54,775
Queensland .. ..	30,479	27,300	27,719	29,309	25,899
South Australia .. ..	25,455	21,766	20,106	18,475	17,033
Western Australia .. ..	13,325	15,499	16,972	15,734	14,986
Tasmania .. ..	7,309	7,413	7,468	7,504	6,785
Northern Territory .. ..	317	456	500	441	442
Federal Capital Territory .. ..	..	..	..	..	92
Total .. ..	268,191	270,075	263,301	252,810	241,755

Investigation of the returns shows that considerable variations in the figures for single States are occasioned by breaches of new Acts, or the more stringent enforcement of the provisions of existing Acts. Any deductions drawn from the total returns as to the increase or otherwise of criminality must, therefore, be largely influenced by a careful analysis of the detailed list of offences. Thus, the considerable increase in the total offences in New South Wales for the year 1928 as compared with the previous year was chiefly due to a rise in the offences against good order and in the miscellaneous class, amounting in the case of the former to over 4,000, and in the latter to 7,760, the bulk of the increase in the latter consisting of charges under the Traffic Act.

4. **Convictions and Committals.**—The figures given in the tabulation above include, of course, a number of people who were wrongly charged, and statistically are not of general importance. The actual number of convictions in connexion with the persons who appeared before the lower courts in each year of the period 1927 to 1931 is, therefore, given hereunder. A separate line is added showing the committals to higher courts.

## MAGISTRATES' COURTS.—CONVICTIONS AND COMMITTALS.

State.		1927.	1928.	1929.	1930.	1931.
New South Wales ..	Convictions	107,657	119,936	113,398	102,670	101,675
	Committals	1,895	2,003	2,403	2,725	2,751
Victoria ..	Convictions	53,612	47,865	45,318	45,537	42,997
	Committals	774	731	950	948	1,095
Queensland ..	Convictions	28,763	25,563	25,324	26,814	22,081
	Committals	337	313	309	358	367
South Australia ..	Convictions	22,876	18,665	17,320	15,609	14,654
	Committals	301	420	403	491	424
Western Australia ..	Convictions	12,114	14,197	15,565	14,358	13,441
	Committals	84	76	93	114	99
Tasmania ..	Convictions	6,766	6,835	6,898	6,743	6,180
	Committals	72	98	105	76	175
Northern Territory	Convictions	287	424	460	354	314
	Committals	6	2	14	11	11
Federal Capital Territory	Convictions	..	..	..	..	84
	Committals	..	..	..	..	1
Total ..	Convictions	232,075	233,485	224,283	212,085	201,426
	Committals	3,469	3,643	4,277	4,723	4,923

5. **Convictions for Serious Crime.**—While the figures given in the preceding table refer to the entire body of convictions, the fact must not be overlooked that they include a large proportion of offences of a technical nature, many of them unwittingly committed, against various Acts of Parliament. Cases of drunkenness and minor breaches of good order, which, if they can be said to come within the category of crime at all, at least do so in a very different sense from some other offences, also help to swell the list. The following table has therefore been prepared for the purpose of showing the convictions at magistrates' courts for what may be regarded as the more serious offences, i.e., against the person and property, either separately or conjointly, and forgery and offences against the currency :—

## MAGISTRATES' COURTS.—CONVICTIONS FOR SERIOUS CRIME.

State.		1927.	1928.	1929.	1930.	1931.
NUMBER.						
New South Wales ..	..	10,132	10,237	11,674	11,822	13,627
Victoria ..	..	3,588	3,415	3,860	4,060	4,123
Queensland ..	..	2,712	3,135	3,420	4,148	2,396
South Australia ..	..	1,017	1,091	1,235	1,254	1,370
Western Australia ..	..	1,163	1,344	1,508	1,736	1,713
Tasmania ..	..	551	616	743	725	875
Northern Territory ..	..	7	51	99	90	97
Federal Capital Territory ..	..	..	..	..	..	84
Total ..	..	19,170	19,889	22,539	23,835	24,285

## PER 10,000 OF THE POPULATION.

New South Wales ..	..	42.6	42.2	47.2	47.3	54.3
Victoria ..	..	20.8	19.5	21.8	22.8	22.9
Queensland ..	..	30.5	34.5	37.0	44.2	25.0
South Australia ..	..	17.8	18.9	21.3	21.6	23.5
Western Australia ..	..	30.2	33.7	36.7	41.5	40.7
Tasmania ..	..	26.2	29.1	34.8	33.5	39.8
Northern Territory ..	..	16.5	121.2	237.0	193.6	211.2
Federal Capital Territory ..	..	..	..	..	..	97.5
Total ..	..	31.1	31.6	35.4	37.0	37.4

The rate for 1931 is the highest recorded for the quinquennium, the increase in this year being mainly due to a rise in convictions for offences against property in New South Wales.

6. **Decrease in Serious Crime, 1881 to 1931.**—(i) *Rate of Convictions.* The figures quoted in the preceding table show that during the last five years the rate of serious crime has increased, but if the comparison be carried back to 1881 the position is seen to be more satisfactory. The rate of convictions at magistrates' courts per 10,000 of the population is given below for each of the years 1881, 1891, 1901, 1921, and 1931. Only the more serious offences particularized in the preceding sub-section have been taken into consideration.

**MAGISTRATES' COURTS.—SERIOUS CRIME.—RATE OF CONVICTIONS, 1881 TO 1931.**

Year.							Convictions per 10,000 Persons.
1881 .. .. .	..	..	..	..	..	..	69.3
1891 .. .. .	..	..	..	..	..	..	44.8
1901 .. .. .	..	..	..	..	..	..	29.1
1921 .. .. .	..	..	..	..	..	..	29.2
1930 .. .. .	..	..	..	..	..	..	37.4

The figures already quoted refer to total convictions, and in respect of individuals necessarily involve a considerable amount of duplication, especially as regards the less important offences, such as petty larcenies, etc.

(ii) *Causes of Decrease.* The statistics given above show that there has been a considerable decrease in crime throughout Australia over the period dealt with. The results so far quoted are restricted entirely to the lower or magistrates' courts. There has also been a gratifying decrease in regard to offences tried at the higher courts, as will be seen later. A review of the various factors responsible for this decline is given in preceding issues of the Official Year Book. (See No. 22, p. 465.)

7. **Drunkennes.**—(i) *Cases and Convictions.* The number of cases of drunkennes and the convictions recorded in connexion therewith during the period 1927 to 1931 will be found in the following table:—

**DRUNKENNESS.—CASES AND CONVICTIONS.**

State.	1927.		1928.		1929.		1930.		1931.	
	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.
New South Wales	33,011	32,649	35,590	35,155	33,819	33,136	26,126	25,655	21,195	20,559
Victoria ..	10,793	7,050	9,635	6,241	9,385	5,866	8,132	6,243	7,018	5,602
Queensland ..	12,829	12,657	10,836	10,599	9,882	9,747	9,476	9,385	6,120	6,079
South Australia	5,925	5,913	4,996	4,946	4,312	4,291	2,582	2,577	2,334	2,320
Western Australia	3,904	3,881	4,039	4,011	3,567	3,539	2,906	2,879	2,329	2,309
Tasmania ..	313	303	281	274	329	321	240	240	245	243
Northern Territory	108	108	232	232	157	153	103	100	146	145
Fed. Cap. Terr. ..	..	..	..	..	..	..	..	..	26	26
<b>Total ..</b>	<b>66,883</b>	<b>62,561</b>	<b>65,609</b>	<b>61,458</b>	<b>61,451</b>	<b>57,053</b>	<b>49,565</b>	<b>47,079</b>	<b>39,413</b>	<b>37,283</b>

Under the heading drunkennes, are included cases of ordinary drunkennes, drunkennes and disorderliness, and habitual drunkennes. In the figures quoted for Western Australia, convictions for disorderliness attributable to drink were formerly included in the second category, but for the last three years the returns relate only to drunkennes either as a single or concurrent offence.

The number of convictions is, as might naturally be expected, almost identical with the number of cases. Victoria, however, is an exception, but in this State it is explained that offenders are generally discharged on a first appearance, and no conviction is recorded, a similar procedure being also adopted in the case of those arrested on Saturday and detained in custody till Monday. The logic of excluding these cases from the list of convictions is open to doubt.

(ii) *Convictions per 10,000 of Population.* The convictions for drunkenness per 10,000 of the population during each of the years from 1927 to 1931 are given hereunder:—

**DRUNKENNESS.—CONVICTIONS PER 10,000 INHABITANTS.**

State.	1927.	1928.	1929.	1930.	1931.
New South Wales .. ..	137.2	144.5	134.1	102.7	82.0
Victoria .. ..	40.8	35.6	33.2	35.0	31.2
Queensland .. ..	141.9	116.6	105.4	99.8	63.5
South Australia .. ..	103.5	85.7	74.0	44.4	39.8
Western Australia .. ..	100.8	100.4	86.0	68.8	54.9
Tasmania .. ..	14.4	12.9	15.0	11.1	11.0
Federal Capital Territory .. ..	..	..	..	..	30.2
Total .. ..	101.4	97.8	89.5	73.1	57.4

During the last five years there has been a considerable decline in convictions, and as shown in the following table this has been accompanied by a falling off in the consumption of intoxicating beverages.

The convictions for drunkenness taken by themselves are not an altogether satisfactory test of the relative sobriety of the inhabitants of each State, inasmuch as several important factors must be taken into consideration. The age and sex constitution of the people, for example, are by no means identical in all the States. (Owing to the smallness of the population the figures for the Northern Territory are, of course, abnormal and have not, therefore, been included in the above table.) The avocations of the people affect the result, since persons engaged in strenuous callings are, on the whole, more likely to indulge in alcoholic stimulants than those employed in less arduous ones. The distribution of the population is also a factor, the likelihood of arrest or summons for drunkenness obviously being greater in the more densely populated regions, while allowance must be made for the attitude of the magistracy, the police, and the public generally in regard to the offence. Due account also must be taken of the effect of legislation dealing with the limitation of hours during which liquor may be sold in hotels.

(iii) *Consumption of Intoxicants.* The following table shows the consumption of spirits, wine, and beer per head of the population in Australia during each year of the quinquennium 1928–32:—

**INTOXICANTS, CONSUMPTION.—AUSTRALIA.**

Year.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	Imp. Galls.	Imp. Galls.	Imp. Galls.
1927–28 .. ..	0.40	0.50	11.44
1928–29 .. ..	0.38	0.50	11.31
1929–30 .. ..	0.36	0.50	10.22
1930–31 .. ..	0.18	0.50	8.12
1931–32 .. ..	0.17	0.50	7.32

The figures in regard to wine are approximate, and are probably to some extent understated. It is impossible to ascertain exactly the consumption, as a beverage, of wine produced in Australia. As pointed out in connexion with the preceding table, the decline in the consumption per head of intoxicants during the last five years was accompanied by a corresponding decrease in the figures for drunkenness over the same period.

(iv) *Treatment of Drunkenness. (a) General.* Though the problem of the correct method of dealing with dipsomania is by no means an easy one, it seems fairly clear that the present plan of bringing offenders before magistrates, and subjecting them to the penalty of imprisonment or fine, has little deterrent effect, as the same offenders are constantly reappearing before the courts. Further, the casting of an inebriate into prison, and placing him in his weakened state in the company of professional malefactors, certainly lowers his self-respect, and doubtless tends to swell the ranks of criminals. Examination of the prison records in New South Wales some years ago disclosed the fact that over 40 per cent. of the gaol population had commenced their criminal career with a charge of drunkenness. During the last few years the dangers of moral contamination in this way have been more accurately appreciated, and a system of classification of prisoners has been adopted whereby the petty offender is as far as possible kept from association with the more evilly-disposed. The Comptroller-General of Prisons in Queensland stated in his Report for the year 1907 that "the drunken habit in many cases is merely one of the many symptoms which jointly indicate the existence of a graver condition than simple habitual drunkenness."

(b) *Remedial.* Legislation has been passed in each State, providing for the commitment of inebriates to special Government institutions. The laws in the various States are as follows:—New South Wales, Inebriates Act 1912; Victoria, Inebriates Acts 1915, 1923 and 1928; Queensland, Inebriate Institutions Act 1896; South Australia, Inebriates Acts 1908, 1913, and 1920; Western Australia, Inebriates Acts 1912 and 1919; Tasmania, Inebriates Act 1885, Inebriate Hospitals Act 1892. Curative work was first undertaken by the Government of New South Wales in 1907. In most cases the institutes are connected with the gaols, and, naturally, custodial measures are still a strong feature in their management; nevertheless, the results of remedial measures have been encouraging.

8. *First Offenders.*—In all the States statutes dealing with first offenders have been in force for some years, the dates of passing the Acts being as follows:—New South Wales, 1894 and 1900; Victoria, 1890, 1908, 1915 (Crimes Act, sec. 340), and 1928; Queensland, 1887; South Australia, 1887, 1913, 1924, and 1925; Western Australia, 1892; Tasmania, 1886. The method of procedure is practically the same in all cases, i.e., with regard to most first offenders the magistrate or judge is empowered to allow the offender to go free on recognizances being entered into for his good behaviour for a certain period. In practice, this humane law has been found to work excellently, very few of those to whom its provisions have been extended having been found to relapse into crime.

9. *Children's Courts.*—Special courts for the trial of juvenile offenders have been established in New South Wales, Victoria, Queensland, Western Australia, Tasmania, and New Zealand, while Children's Courts, although not under that name, are practically provided for by the State Children's Acts of 1895 and 1900 in South Australia. The object of these courts is to avoid, as far as possible, the unpleasant surroundings of the ordinary police court.

10. *Committals to Superior Courts.*—(i) *General.* In a previous sub-section it has been pointed out that comparisons of criminality based on a consideration of the total returns from magistrates' courts are somewhat inadequate, seeing that the figures include numbers of cases which are merely technical breaches of laws having in some instances a purely local significance. The committals to higher courts give a better basis of



comparison, although even in this connexion allowance must be made for the want of uniformity in jurisdiction. The table below gives the number of committals in each year from 1927 to 1931, with the rate of such committals per 10,000 of the population :—

### COMMITTALS TO SUPERIOR COURTS.

State.	1927.	1928.	1929.	1930.	1931.
NUMBER.					
New South Wales .. ..	1,895	2,003	2,403	2,725	2,751
Victoria.. ..	774	731	950	948	1,095
Queensland .. ..	337	313	309	358	367
South Australia .. ..	301	420	403	491	424
Western Australia .. ..	84	76	93	114	99
Tasmania .. ..	72	98	105	76	175
Northern Territory .. ..	6	2	14	11	11
Federal Capital Territory .. ..	..	..	..	..	1
Total .. ..	3,469	3,643	4,277	4,723	4,923

### PER 10,000 OF THE POPULATION.

New South Wales .. ..	8.0	8.2	9.7	10.9	11.0
Victoria.. ..	4.5	4.2	5.4	5.4	6.1
Queensland .. ..	3.8	3.4	3.3	3.8	3.8
South Australia .. ..	5.3	7.3	7.0	8.5	7.3
Western Australia .. ..	2.2	2.0	2.3	2.7	2.4
Tasmania .. ..	3.4	4.6	4.9	3.5	8.0
Federal Capital Territory .. ..	..	..	..	..	1.2
Total .. ..	5.6	5.7	6.7	7.3	7.6

(ii) *Decrease in Rate since 1861.* The figures in the preceding table show that the rate of committals for serious crime has increased during the last five years, but if the comparison be carried further back, it will be found that there has been a very considerable improvement. This will be evident from an examination of the following figures, which show the rate of committals per 10,000 persons in Australia at various periods since 1861 :—

### RATE OF COMMITTALS, AUSTRALIA, 1861 TO 1931.

Year .. ..	1861.	1871.	1881.	1891.	1901.	1911.	1921.	1931.
Committals per 10,000 inhabitants	22	14	12	11	8	6	7	8

The decline in proportion to population since 1861 has therefore been about 64 per cent.

### § 3. Superior Courts.

1. Convictions at Superior Courts.—The number of convictions at superior courts and the rate per 10,000 of the population are given below for each of the years 1927 to 1931 :—

#### SUPERIOR COURTS.—CONVICTIONS.

State.	1927.	1928.	1929.	1930.	1931.
NUMBER.					
New South Wales .. ..	(a)877	(a)846	(a)1,034	(a)1,208	(b)1,139
Victoria .. ..	474	521	630	720	723
Queensland .. ..	259	244	193	198	209
South Australia .. ..	196	264	258	304	274
Western Australia .. ..	61	51	74	92	72
Tasmania .. ..	37	70	73	65	84
Northern Territory .. ..	..	4	21	2	6
Federal Capital Territory .. ..	..	..	..	..	1
Total .. ..	1,904	2,000	2,283	2,589	2,508

#### PER 10,000 OF THE POPULATION.

New South Wales (a) .. ..	3.7	3.5	4.2	4.8	4.5
Victoria .. ..	2.7	3.0	3.6	4.0	4.0
Queensland .. ..	2.9	2.7	2.0	2.1	2.2
South Australia .. ..	3.4	4.6	4.5	5.2	4.7
Western Australia .. ..	1.6	1.3	1.8	2.2	1.7
Tasmania .. ..	1.8	3.3	3.4	3.0	3.8
Total .. ..	3.1	3.2	3.6	4.0	3.9

(a) Year ended 30th June following. (b) Year 1932.

The rate in 1901 was 4.6 per 10,000, and the decrease to the end of 1931 was, therefore, about 15 per cent. During the last five years, however, the rate of convictions in Australia increased by about 26 per cent., Queensland being the only State to show a tendency towards decrease. Owing to the particular conditions prevailing there, the figures for the Northern Territory are abnormal, and the rates have, therefore, been excluded from the table.

2. Offences for which Convictions were recorded at Superior Courts.—In the following table will be found a classification of the principal offences for which persons were convicted at the higher courts during each year of the period 1927 to 1931. Owing to lack of uniformity in the presentation of the returns the information is confined to the chief offences against the person only.

#### SUPERIOR COURTS.—CONVICTIONS, OFFENCES AGAINST THE PERSON, AUSTRALIA.

Offences.	1927.	1928.	1929.	1930.	1931.
Murder, and attempts at .. ..	30	25	33	21	38
Manslaughter .. ..	15	17	15	8	13
Rape, and attempts at .. ..	14	11	15	14	9
Other offences against females .. ..	130	159	124	136	118
"    "    "    the person .. ..	224	222	244	224	211
Total .. ..	413	434	431	403	389

The total convictions for similar offences in 1901 amounted to 432. Stated according to the proportion per 10,000 of mean population, the rate in 1931 amounted to 0.60, as compared with a rate of 1.14 in 1901, the decrease for the period amounting, therefore, to about 47 per cent.

3. **Habitual Offenders.**—Some account of the methods adopted in each State in connexion with habitual offenders is given in preceding Year Books (see No. 22, pp. 469–70), but this information cannot be repeated in this issue.

4. **Capital Punishment.**—The table below gives the number of executions in each State during the period 1927 to 1931 :—

## EXECUTIONS.

State.	1927.	1928.	1929.	1930.	1931.
New South Wales .. ..	2	..	..	..	..
Victoria .. ..	..	..	..	..	..
South Australia .. ..	2	..	I	..	..
Western Australia (a) ..	I	I	..	I	I
Tasmania .. ..	..	..	..	..	..
<b>Total</b> .. ..	<b>5</b>	<b>I</b>	<b>I</b>	<b>I</b>	<b>I</b>

(a) Year ended 30th June following.

There were 3 executions in 1932, i.e., 1 in each of the States of New South Wales, Victoria, and Western Australia.

Under the Criminal Code Amendment Act of 1922, capital punishment was abolished in Queensland.

In the early days of the history of Australia the penalty of death was attached to a large number of offences, many of which at the present time would be dealt with in the lower or magistrates' courts. With the growth of settlement, and the general amelioration in social and moral conditions, the list was, however, considerably curtailed, and the existing tendency is practically to restrict death sentences to cases of murder. It may be remarked that in cases of rape, which is a capital offence in some of the Australian States, the penalty has been but sparingly inflicted during the last few years. Juries are reputed to be loth to convict on this charge, owing to the uncertainty whether sentence of death will be pronounced.

During the period 1861 to 1880 the average annual number of executions in Australia was 9, from 1881 to 1900 the average was 6, for the period 1901 to 1910 the figure was 4, from 1911 to 1920 it was 2, while the average for the last ten years was about 1.8.

## § 4. Prisons.

1. **Prison Accommodation and Prisoners, 1931.**—The table below shows the number of prisons in each State, the accommodation therein, and the number of prisoners in confinement at the end of 1931 :—

## PRISON ACCOMMODATION AND PRISONERS, 1931.

State.	Number of Prisons.	Accommodation in—		Prisoners at End of Year.
		Separate Cells.	Wards.	
New South Wales (a) .. ..	26	(b) 2,351	..	1,648
Victoria .. ..	15	1,292	491	1,407
Queensland .. ..	7	581	98	318
South Australia .. ..	14	731	187	369
Western Australia .. ..	19	609	486	319
Tasmania .. ..	1	142	4	125
Northern Territory .. ..	3	..	64	25
<b>Total</b> .. ..	<b>85</b>	<b>5,706</b>	<b>1,330</b>	<b>4,211</b>

(a) Year ended 30th June following.

(b) Total accommodation.

The figures refer to prisoners under sentence and are exclusive of aborigines. There are no gaols in the Federal Capital Territory, but there is a lock-up attached to the police station, where offenders are held while awaiting trial, and sentences not exceeding one week imposed by a magistrat  may be served.

2. *Prisoners in gaol, 1927 to 1931.*—The number of prisoners in gaol at the 31st December in each of the years 1927 to 1931 and the proportion per 10,000 of the population are given in the following table. The figures refer to prisoners under sentence, and are exclusive of aborigines.

## PRISONERS IN GAOL.

State.	1927.	1928.	1929.	1930.	1931.
NUMBER.					
New South Wales (a) ..	1,682	1,699	1,842	1,691	1,648
Victoria ..	883	934	1,145	1,299	1,407
Queensland ..	353	365	368	323	318
South Australia ..	312	403	368	361	369
Western Australia ..	221	236	315	382	319
Tasmania ..	85	73	89	116	125
Northern Territory ..	6	18	30	26	25
Total ..	3,542	3,728	4,157	4,198	4,211

## PER 10,000 OF THE POPULATION.

New South Wales ..	7.0	7.0	7.5	6.8	6.6
Victoria ..	5.1	5.3	6.5	7.3	7.8
Queensland ..	4.0	4.0	4.0	3.4	3.3
South Australia ..	5.5	7.0	6.4	6.2	6.3
Western Australia ..	5.7	5.9	7.7	9.1	7.6
Tasmania ..	4.0	3.4	4.2	5.4	5.9
Total ..	5.7	5.9	6.5	6.5	6.5

(a) Year ended 30th June following.

The proportion to population of prisoners in gaol under sentence has risen by about 14 per cent. in Australia during the last five years, but, if the comparison be carried farther back, the position is seen to be more favourable, the proportion in 1891 being as high as 16 per 10,000. Rates for the Northern Territory have not been included on account of the abnormal conditions prevailing there.

3. *Improvement in Prison Methods.*—In previous issues of the Official Year Book a more or less detailed account was given of the improvements effected in each State during recent years in regard to methods of prison management (see Official Year Book 22, pp. 471-4), but this information cannot be repeated in the present volume.

## § 5. Civil Courts.

1. Lower Courts.—The transactions of the lower courts on the civil side during the year 1931 are given in the table hereunder. Particulars for earlier years will be found in preceding issues of the Official Year Book.

## LOWER COURTS.—CIVIL CASES, 1931.

State.		1931.	State.		1931.		
New South Wales	{ Cases No.	71,509	Western Australia	{ Cases No.	25,863		
	{ Amount £	397,902		{ Amount £	172,609		
Victoria	{ Cases No.	109,919	Tasmania	{ Cases No.	10,774		
	{ Amount £	841,044		{ Amount £	81,294		
Queensland	{ Cases No.	23,001	Total	{ Cases No.	265,941		
South Australia	{ Amount £	268,180				{ Amount £	1,982,374
	{ Cases No.	24,875					
	{ Amount £	221,345					

Particulars in regard to the amount of judgments involved in the 161 civil cases in the Northern Territory were not available.

Causes dealt with in the Civil Courts of the Federal Capital Territory during the years 1931 and 1932, respectively, were as follow:—Lower Courts: Causes 155 and 158, judgments £2,848 and £2,045; Higher Courts: Causes in 1931 3, judgments £1,666; 1932 nil.

The figures just given represent the returns from Petty Sessions Courts in New South Wales and Victoria, the Petty Debts Courts in Queensland, the Local Courts of South Australia and Western Australia, and the Courts of Requests in Tasmania.

2. Superior Courts.—In the next table will be found the transactions on the civil side in the Superior Courts during the year 1931. Particulars for previous years will be found in preceding issues.

The New South Wales returns refer to the total amounts of judgments in the District Courts, and are exclusive of judgments signed in the Supreme Court, for which the amount is not available.

## SUPERIOR COURTS.—CIVIL CASES, 1931.

State.		1931.	State.		1931.		
New South Wales	{ Causes No.	2,437	Western Australia	{ Causes No.	995		
	{ Amount £	392,684		{ Amount £	97,130		
Victoria..	{ Causes No.	630	Tasmania	{ Causes No.	605		
	{ Amount £	132,383		{ Amount £	29,102		
Queensland	{ Causes No.	319	Total	{ Causes No.	5,170		
South Australia	{ Amount £	15,293				{ Amount £	785,276
	{ Causes No.	184					
	{ Amount £	118,684					

The figures for amount of judgments in New South Wales are exclusive of returns for the Supreme Court for which particulars are not available. Causes numbering 3,274, involving an amount of £379,471, in which judgment was entered by default or consent, have been excluded from the returns for Victoria.

In addition, four civil cases were returned from Courts in the Northern Territory, but details regarding judgments were not available.

3. Divorces and Judicial Separations.—The number of divorces and judicial separations in each State during the period 1927 to 1931 is shown below. The figures refer in the case of divorces to decrees made absolute in each year and include decrees for nullity of marriage.

DIVORCES AND JUDICIAL SEPARATIONS.

State.	1927.		1928.		1929.		1930.		1931.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
New South Wales .. ..	1,068	20	921	6	1,078	17	933	7	1,034	3
Victoria .. ..	513	2	481	..	546	2	387	1	423	..
Queensland .. ..	64	..	117	2	89	..	119	2	107	1
South Australia .. ..	97	..	113	..	107	..	148	1	139	..
Western Australia .. ..	106	..	142	1	167	1	153	2	138	1
Tasmania .. ..	51	..	55	..	48	1	42	..	47	..
Northern Territory .. ..	..	..	..	..	1	..	1	..	..	..
Total .. ..	1,899	22	1,829	9	2,036	21	1,783	13	1,938	7

The average annual number of divorces and judicial separations in Australia at decennial periods from 1871 to 1930 and the proportion per 10,000 existing marriages were as follow :—

DIVORCES AND JUDICIAL SEPARATIONS.—AUSTRALIA.

	1871-80.	1881-90.	1891-1900.	1901-10.	1911-20.	1921-30.
Averages .. ..	29	70	358	401	707	1,699
Per 10,000 existing marriages ..	0.98	1.74	6.86	6.15	8.13	15.45

The bulk of the divorces and judicial separations refer to New South Wales and Victoria, the Acts of 1899 and 1889 in the respective States having made a separation of the marriage tie comparatively easy.

4. Probates.—Information in regard to probates and letters of administration will be found in Chapter XV., Private Finance.

5. Bankruptcies.—Particulars relating to bankruptcy in each State up to the end of the year 1927 were incorporated under this heading in preceding issues of the Official Year Book. Under the terms of the Bankruptcy Act 1924-1932 jurisdiction in bankruptcy and insolvency was taken over by the Commonwealth from 1st August, 1928. The Act makes provision for the declaration of districts, and each State (except Queensland) has been declared a bankruptcy district. The bankruptcy district of New South Wales includes the Federal Capital Territory, while Queensland has been divided into three districts corresponding to the three Supreme Court districts in that State. The Northern Territory was also declared a separate bankruptcy district. Operations under the Act for the year ended 31st July, 1932, are given in the table hereunder. For purposes of comparison, figures for each of the preceding two years have been appended to the table.

## COMMONWEALTH BANKRUPTCY ACT RETURNS—1931-32.

Heading.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Australia.	
Sequestration Orders and Orders for administration of Deceased Debtors' Estates	Number ..	409	319	181	174	52	69	1,204
	Liabilities £	897,497	459,899	198,032	391,534	82,601	39,559	2,069,122
	Assets £	595,307	184,550	109,485	256,306	39,002	12,326	1,197,476
Compositions, etc., after Bankruptcy	Number ..	..	..	1	12	..	..	14
	Liabilities £	..	..	414	11,306	1,933	..	13,653
	Assets £	..	..	119	19,424	2,603	..	22,206
Compositions, etc., without Bankruptcy	Number ..	11	19	16	560	129	4	739
	Liabilities £	583,180	154,904	3,425	1,050,102	592,796	5,990	2,390,406
	Assets £	267,122	1,029	3,384	757,049	916,445	4,170	1,950,069
Deeds of arrangement	Number ..	443	351	116	18	44	36	1,008
	Liabilities £	860,049	665,598	335,239	37,996	164,871	79,887	2,143,640
	Assets £	822,079	568,499	321,993	54,573	224,396	88,317	2,079,857
Total, 1931-32	Number ..	863	689	314	764	226	109	2,965
	Liabilities £	2,340,739	1,280,401	537,110	1,490,938	842,201	125,436	6,616,821
	Assets £	1,684,508	754,978	434,981	1,087,352	1,182,476	105,313	5,249,608
Total, 1930-31	Number ..	1,540	1,052	358	1,044	500	151	4,645
	Liabilities £	2,902,511	1,726,508	586,414	1,420,301	1,146,671	196,509	7,978,914
	Assets £	2,622,265	1,320,861	601,974	1,029,760	1,033,021	152,645	7,360,535
Total, 1929-30	Number ..	1,057	705	317	510	485	94	3,168
	Liabilities £	2,158,088	1,244,443	556,271	686,107	1,146,194	155,006	5,946,109
	Assets £	1,806,023	976,035	442,496	551,547	1,716,707	87,962	5,580,770

No transactions were recorded for the year in the Northern Territory. The Commonwealth Attorney-General's Report for the year ended 31st July, 1929, states that comparative tables have not been prepared in relation to State bankruptcy or insolvency for previous years, as the methods of collection and presentation do not afford a reliable common basis. It is also pointed out that the procedure in certain States has been largely influenced by the procedure in force prior to the passing of the Commonwealth Act, and that, therefore, no particular significance attaches to the large number of compositions, etc., in South Australia and Western Australia. The Bankruptcy Act 1930 created a Federal Court of Bankruptcy and gave power to appoint two Judges thereto. In 1930 a Federal Judge in Bankruptcy was appointed to deal with bankruptcy work, in addition to the State Judges, in New South Wales and Victoria, the Courts in these States having been unable to cope with the business. All the bankruptcy cases in those States are now heard by the Federal Judge who sits in Sydney and Melbourne alternately.

6. High Court of Australia.—Under the provisions of section 71 of the Commonwealth Constitution Act, the judicial power of the Commonwealth is vested in a Federal Supreme Court, called the High Court of Australia, and in such other courts as the Parliament creates or invests with federal jurisdiction. The Federal High Court possesses both original and appellate jurisdiction. The powers of the Court are defined in Chapter III. of the Constitution Act and in the Judiciary Acts of 1903-32. At present the Court consists of a Chief Justice and five other judges. Sittings of the Court are held in the capitals of the various States as occasion may require. The High Court functions as a Court of Appeal for Australia. The following statement shows the transactions of the High Court for the years 1931 and 1932. Figures for previous years are given in preceding issues.

**COMMONWEALTH HIGH COURT.—TRANSACTIONS, 1931 AND 1932.**

Original Jurisdiction.	1931.		1932.		Appellate Jurisdiction.	1931.		1932.	
Number of writs issued ..	82		38		Number of appeals set down for hearing ..	79		91	
Number of causes entered for trial ..	8		9		Number allowed ..	25		33	
Verdicts for plaintiffs ..	7		5		Number dismissed ..	43		46	
Verdicts for defendants ..	2		4		Otherwise disposed of ..	12		9	
Otherwise disposed of ..	9		3						
Amount of judgments ..	£24,805		£8,377						

The fees collected in 1931 amounted to £699, and in 1932 to £775.

During the years 1931 and 1932, the Court dealt also with other matters as follows :—

Appeals from Assessments under the Taxation Assessment Acts, 41 and 53 ; Special cases stated for the opinion of the Full Court, 5 and 9 ; Applications for Prohibitions, etc., 6 and 7.

7. Commonwealth Court of Conciliation and Arbitration.—A more or less detailed statement regarding the operation of this Court, which was established under the provisions of the Commonwealth Conciliation and Arbitration Act of 1904-30, will be found in the Chapter dealing with Labour, Wages, etc.

**§ 6. Cost of Administration of Justice.**

1. Expenditure by the States.—The table below shows the expenditure from Consolidated Revenue during the year 1931-32 in connexion with the administration of justice in each of the States.

**STATE EXPENDITURE ON JUSTICE, 1931-32.**

State.	Expenditure.	Per Head of Population.	State.	Expenditure.	Per Head of Population.		
	£	s. d.		£	s. d.		
N.S.W. ..	{ Police	1,430,033	11 4	W.A. ..	{ Police	207,653	9 10
	{ Gaols	332,159	2 8		{ Gaols	26,018	1 3
	{ Other	526,538	4 2		{ Other	56,972	2 8
Vic. ..	{ Police	783,390	8 8	Tas. ..	{ Police	80,505	7 3
	{ Gaols	97,559	1 1		{ Gaols	11,213	1 0
	{ Other	212,696	2 4		{ Other	31,541	2 10
Q'land ..	{ Police	499,330	10 4	Total ..	{ Police	3,295,155	10 1
	{ Gaols	29,809	0 7		{ Gaols	539,587	1 8
	{ Other	154,591	3 2		{ Other	1,043,383	3 2
S.A. ..	{ Police	294,244	10 1				
	{ Gaols	42,829	1 6				
	{ Other	61,045	2 1				

The total expenditure in connexion with the administration of justice in the various States declined from 15s. 11d. per inhabitant in 1926-27 to 14s. 11d. in 1931-32. Police expenditure decreased by 5d. per head, the average for gaols rose by 4d. per head, while the expenditure on courts and the remaining machinery of justice decreased by 11d. per head during the period. As might naturally be expected, in view of the necessity for economy, the total expenditure on this service for the year 1931-32 amounting to £4,878,000, shows a considerable decline as compared with that for 1930-31 when the total was returned at £5,658,000.



2. **Federal Expenditure.**—The expenditure shown in the foregoing table is that incurred by the State Governments only, and does not include expenditure in connexion with the Commonwealth Attorney-General's Department, which is given hereunder for the period 1927-28 to 1931-32 :—

**COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT—EXPENDITURE.**

Year.				Amount.	Year.				Amount.
				£					£
1927-28	..	..	..	231,697	1930-31	..	..	..	233,199
1928-29	..	..	..	246,745	1931-32	..	..	..	196,528
1929-30	..	..	..	245,491					

The totals for each year include expenditure in connexion with Patents and Copyright which decreased from £48,691 in 1925-26 to £41,328 in 1931-32. As pointed out previously, the Commonwealth took over jurisdiction in bankruptcy in August, 1928, and the expenditure thereon in 1931-32 amounted to £26,021. Expenditure in connexion with the Federal Capital Territory police amounted in 1931-32 to £4,500 while £1,416 was expended on miscellaneous items including the Law Court, Titles Office, and Industrial Arbitration Board. During the same year the Department of the Interior expended the following amounts in the Northern Territory :—Police, £26,674 ; Prisons, £4,787 ; other expenditure in connexion with administration of Justice, £2,664.

## CHAPTER X.

## PUBLIC BENEVOLENCE.

## § 1. Introductory.

Charity and charitable effort in Australia may be classified under three headings, viz. :—(a) State; (b) public; (c) private. To the first belong all institutions wholly provided for by the State, such as the principal hospitals for the insane in the various States, the Government hospitals in Western Australia, and the Government asylums for the infirm in New South Wales. The second class comprises public institutions of two kinds, viz. :—(i) those partially subsidized by the State or State endowed, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the former division belong such institutions as the principal metropolitan hospitals. In the latter are included institutions established and endowed by individuals for the benefit of the needy generally. All charitable movements of a private character are included in the third group. A more or less accurate statistical account is possible in classes (a) and (b), but in regard to (c) complete tabulation is, for obvious reasons, impossible. Owing to differences in the method and date of collection and tabulation it is impossible to bring statistics of charitable institutions to a common year. In general, there is considerable want of harmony in the statistical information available for the different States.

No poor-rate is levied in Australia. Reference to old-age pensions, invalid pensions, and maternity allowances, which are provided by the Commonwealth, will be found in the Chapter "Public Finance" herein.

From time to time relief funds have been organized for famine-stricken countries in various parts of the world, or for places where plagues, flood, fire, or earthquake have shown the need of urgent relief. Special funds were also raised for persons disabled or bereaved through war. Complete statistical information in regard to these forms of charity is not, however, available. It may be mentioned that the daily Press frequently accepts the duty of collectorship in charity appeals. In regard to subscriptions to the various patriotic funds which were instituted in consequence of the war, the total for Australia was estimated to exceed £12,500,000 sterling.

## § 2. The Larger Charities of Australia.

1. **Public Hospitals (other than Hospitals for the Insane).**—(i) *General.* All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres there are hospitals for infectious diseases, consumptives, women, children, incurables, etc.

The particulars given herein refer to public hospitals at the latest available date, and include all, other than private, institutions affording hospital relief, whether general or special, with the exception of the hospitals for the insane. It is considered that the extension of the scope of these statistics to embrace both general and special institutions will afford a better comparison as between the various States than the statistics previously issued relating to general hospitals only. The particulars for New South Wales in the following tables relate to hospitals operating under The Public Hospitals Act.

(ii) *Principal Hospitals in each State.* In earlier issues of the Official Year Book (See No. 22, pp. 481–2) particulars respecting staff, accommodation, etc., of each of the principal hospitals were given.

(iii) *Number, Staff, and Accommodation, 1931.* Details regarding the number of hospitals, staffs, and accommodation for the year 1931, or nearest available year, are given in the appended table:—

**PUBLIC HOSPITALS.—NUMBER, STAFFS, AND ACCOMMODATION, 1931. (a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (b)	Tas.	Total.
Number of Hospitals—							
Government .. .. .	168	72	115	111	186	316	513
Other .. .. .							
Total .. .. .	168	72	116	51	87	19	513
Medical Staff—							
Honorary .. .. .	1,324	807	233	161	50	39	3,158
Salaried .. .. .	150	184	143	45			
Total .. .. .	1,474	991	376	206	50	61	3,158
Nursing Staff .. .. .	3,165	2,129	1,814	724	1,164	328	9,324
Accommodation—							
Number of beds and cots	9,209	6,542	4,869	2,082	2,520	1,300	26,522

(a) The figures relate to the years ended as follows:—New South Wales, Queensland and Western Australia—30th June, 1932; South Australia and Tasmania—31st December, 1931; Victoria—30th June, 1931. (b) Exclusive of particulars of two Lying-in Homes and two Convalescent Homes conducted for charitable purposes, outside Government control, for which the financial data is included in the table on page 303.

(iv) *Patients Treated.* The table hereunder furnishes particulars respecting patients treated. In addition to the facilities provided in the ordinary wards, a considerable amount of accommodation for certain classes of cases is furnished in out-door or verandah sleeping places, and this can be augmented; full particulars in connexion with these are not available. So far as the returns show, there were 836 out-door beds in Queensland and 216 in South Australia. These figures are not included in the totals given in the table above.

**PUBLIC HOSPITALS.—PATIENTS TREATED, 1931.(a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (b)	Tas.	Total.
Indoor Relief—Inmates at beginning of year—							
Males .. .. .	(c)	2,460	1,925	621	795	349	(c)
Females .. .. .	(c)	2,378	1,658	599	596	304	(c)
Total .. .. .	6,304	4,838	3,583	1,220	1,391	713	18,049
Admissions and Re-admissions during year—							
Males .. .. .	(c)	31,879	39,030	11,982	16,752	6,440	(c)
Females .. .. .	(c)	39,698	35,620	13,303	15,293	7,988	(c)
Total .. .. .	135,281	71,577	74,650	25,285	32,045	14,428	353,266
Discharges—							
Males .. .. .	(c)	29,432	37,127	11,051	15,690	6,164	(c)
Females .. .. .	(c)	37,911	34,600	12,649	14,715	7,729	(c)
Total .. .. .	d 135,291	67,343	71,727	23,700	30,405	13,893	342,359
Deaths—							
Males .. .. .	(c)	2,325	1,972	886	987	321	(e) 6,491
Females .. .. .	(c)	1,652	1,024	571	500	244	(e) 3,991
Total .. .. .	(c)	3,977	2,996	1,457	1,487	565	(e) 10,482
Inmates at end of year—							
Males .. .. .	(c)	2,582	1,856	666	870	308	(c)
Females .. .. .	(c)	2,513	1,654	682	674	375	(c)
Total .. .. .	6,294	5,095	3,510	1,348	1,544	683	18,474
Average Daily Number Resident—							
Males .. .. .	(c)	(c)	(c)	695	(c)	328	(c)
Females .. .. .	(c)	(c)	(c)	678	(c)	378	(c)
Total .. .. .	6,525	4,977	3,400	1,373	1,455	706	18,436

(a) See footnote (a) to previous table. (b) See footnote (b) to previous table. (c) Not available. (d) Including deaths. (e) Exclusive of New South Wales.

(v) *Revenue and Expenditure.* The revenue and expenditure for the year 1931 were as follow :—

**PUBLIC HOSPITALS.—REVENUE AND EXPENDITURE, 1931.(a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (b)	Tas.	Total.
Revenue—	£	£	£	£	£	£	£
Government Aid ..	514,661	313,332	260,286	178,117	141,510	50,801	1,458,707
Municipal Aid ..	..	59,387	106,677	23,435	1,108	7,462	198,069
Public Subscriptions, Legacies, etc. ..	342,031	280,530	88,671	16,255	17,121	16,010	760,618
Fees ..	274,260	159,493	168,445	60,509	79,770	38,503	780,980
Other ..	107,732	84,479	17,343	8,661	17,353	5,443	241,011
<b>Total ..</b>	<b>1,238,684</b>	<b>897,221</b>	<b>641,422</b>	<b>286,977</b>	<b>252,862</b>	<b>118,219</b>	<b>3,439,385</b>
Expenditure—							
Salaries and Wages	617,676	(c)	295,868	127,742	121,849	56,417	(e)1,219,552
Upkeep and Repair of Buildings and Grounds ..	31,701	(c)	6,211	(c)	7,509	2,404	(e) 47,825
All Other ..	528,291	(c)	346,438	(c)	122,833	56,292	(e)1,053,854
Capital (d) ..	69,570	(c)	2,925	(c)	(c)	1,572	(e) 74,067
<b>Total ..</b>	<b>1,247,238</b>	<b>972,026</b>	<b>651,442</b>	<b>284,832</b>	<b>252,191</b>	<b>116,685</b>	<b>3,524,414</b>

(a) See note (a) to table on page 302. (b) See note (b) to table on page 302. (c) Not available. (d) Includes such items as Purchases of Land, Cost of New Buildings and Additions to Buildings. (e) Incomplete.

(vi) *Summary for Five Years, 1927 to 1931.* Returns for the last five years of the number of hospitals in Australia, admissions, patients treated, deaths, and expenditure, are given in the following table. The figures for the years 1927 to 1929 relate mainly to general hospitals, while those for 1930 and 1931 relate to both general and special hospitals. It should be noted that the statistics for the States cannot be brought to a common year, and consequently the following particulars relate to a combination of calendar and financial years.

**PUBLIC HOSPITALS.—SUMMARY, AUSTRALIA.**

Particulars.	1927.	1928.	1929.	1930.	1931.
Number of institutions ..	470	472	480	508	513
Number of beds ..	21,657	21,638	22,629	25,181	26,522
Admissions during year ..	287,662	311,103	319,754	353,190	353,266
Total indoor cases treated ..	302,296	326,049	335,530	370,743	371,315
Deaths ..	16,287	17,265	18,004	18,361	(a) 10,482
Expenditure ..	£ 3,656,890	3,862,048	4,064,654	4,318,212	3,524,414

(a) Exclusive of New South Wales.

In addition to those admitted to the institutions, there are large numbers of out-patients. So far as the returns show there were 467,738 cases treated in New South Wales, 175,250 in Victoria and 31,200 in Tasmania.

2. *Benevolent and Destitute Asylums.—(i) General.* There has been a great increase in recent years in the amount of aid provided for the aged, due partly to the fact that the general age of the community has advanced and partly to the increased regard paid in all British communities to the well-being of the helpless. In Australia numerous establishments have been founded for the housing and protection of persons no longer able to care for themselves. These institutions are supported by Government and municipal aid, public subscriptions, charity performances, bequests, etc.; and in many cases relatives of indigent and afflicted persons contribute to their maintenance.

The impossibility of an entirely satisfactory statistical tabulation in regard to all forms of charitable aid is especially marked in the case of benevolent institutions, since the conditions under which they have been established in the different centres in Australia have resulted in differences in the classes of cases treated by them. For example, in Western Australia, the Home for Destitute Women includes a maternity ward, for which the statistics are not separately kept. Since the chief function of the institution is aid to the destitute, it has been included amongst benevolent asylums. In Victoria, although several of the hospitals were also benevolent asylums, a separation was effected and asylum patients were transferred to appropriate institutions. In South Australia, the Destitute Asylum includes lying-in and children's departments.

(ii) *Principal Institutions.* Particulars respecting the accommodation and the numbers of inmates of the principal institutions were published in earlier issues of the Official Year Book (See No. 22, p. 485).

(iii) *Revenue and Expenditure.* Details regarding revenue and expenditure for the year 1931 are given in the following table :—

BENEVOLENT ASYLUMS.—REVENUE AND EXPENDITURE, 1931.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue—							
Government Aid ..	130,765	46,110	27,580	9,891	4,533	10,311	229,190
Municipal Aid ..	..	893	3	..	..	..	896
Public Subs., Legacies, etc. .. ..	1,868	16,900	452	2,040	..	..	21,260
Fees .. ..	38,511	36,363	..	13,347	15,990	3,915	108,126
Other .. ..	4,032	16,419	25,940	565	298	1,498	48,752
Total .. ..	175,176	116,685	53,975	25,843	20,821	15,724	408,224
Expenditure—							
Salaries and Wages ..	77,575	(b)	53,941	6,780	9,494	4,607	c 152,397
Upkeep and Repair of Buildings .. ..	6,542	(b)	237	783	..	40	c 7,602
All Other .. ..	93,244	(b)	116	20,272	11,327	11,077	c 136,036
Total .. ..	177,361	106,758	54,294	27,835	20,821	15,724	402,793

(a) The figures relate to the years ended as follows:—New South Wales, South Australia and Tasmania—31st December, 1931; Victoria—30th June, 1931; and Queensland and Western Australia—30th June, 1932. (b) Not available. (c) Exclusive of Victoria.

3. *Orphanages, Industrial Schools, etc.*—(i) *General.* The organization of charitable effort varies greatly in regard to orphans and waifs. In many institutions, shelter and some form of industrial training are offered to destitute children of all classes whether orphans or not, while some of those styled orphanages do not confine their relief strictly to orphans. The expenditure on orphanages in 1931 was approximately £216,000.

(ii) *Principal Institutions.* Particulars concerning the principal institutions in each State were published in earlier Year Books (See No. 22, p. 486).

(iii) *Transactions of State Departments.* The following table summarizes the transactions in 1931 of State Departments for the relief of neglected children:—

## STATE RELIEF OF NEGLECTED CHILDREN.—SUMMARY, 1931.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of children in institutions, boarded out, or on probation—							
Males .. ..	2,612	3,899	859	589	507	365	8,831
Females .. ..	2,229	2,910	630	414	427	248	6,858
Total .. ..	4,841	6,809	1,489	1,003	934	613	15,689
Number of children boarded out with their own mothers and female relatives—not included in above figures—							
Males .. ..	11,174	10,178	2,967	140	27	..	27,477
Females .. ..							
Total .. ..	11,174	10,178	5,869	208	48	..	27,477
Total children under State control .. ..	16,015	16,987	7,358	1,211	982	613	43,166
Gross cost of children's relief .. ..	£ 517,774	£ 392,201	£ 172,323	£ 47,598	£ 28,830	£ 15,895	£ 1,174,621
Receipts from parents' contributions, etc. ..	17,227	8,506	7,682	3,687	3,000	248	40,350
Net cost to State..	500,547	383,695	164,641	43,911	25,830	15,647	1,134,271

(a) The figures relate to the years ended as follows:—New South Wales—31st December, 1932; Victoria—31st December, 1931; other States—30th June, 1932.

4. *Leper Hospitals.*—Isolation hospitals for the treatment of lepers have been established in New South Wales (Little Bay); Queensland (Peel Island, near Brisbane); and the Northern Territory (near Darwin). In October, 1931, the 17 inmates of the hospital previously established near Cossack in Western Australia, were transferred to Darwin. At the end of 1932 there were 19 cases in residence at Little Bay, 60 at Peel Island, and 54 in the Northern Territory. During the year 1932 a total of 23 cases of leprosy was reported in Australia, of which 1 was recorded in New South Wales, 17 in Queensland, and 5 in Western Australia. In 1931 there were 6 deaths from this disease, and in 1932 the number of deaths recorded was 7, 6 in Queensland and 1 in the Northern Territory.

5. *Hospitals for the Insane.*—(i) *General.* The method of compiling insanity statistics has been fairly uniform throughout the States, but differences in diagnosis of the early stages of the disease introduce an element of uncertainty which considerably affects the value of comparisons.

(ii) *Hospitals, Staff, etc., 1931.* Particulars regarding the number of institutions, medical and nursing staff, and accommodation are given in the appended table for the year 1931 :—

**HOSPITALS FOR THE INSANE.—NUMBER, STAFFS, ACCOMMODATION, 1931.(a)**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Institutions ..	13	(b) 12	3	2	5	1	36
Medical Staff—							
Males .. ..	31	26	6	6	5	2	76
Females .. ..	4	..	1	..	..	..	5
Total .. ..	35	26	7	6	5	2	81
Nursing Staff and Attendants—							
Males .. ..	874	646	262	110	120	64	2,076
Females .. ..	837	638	202	84	124	69	1,954
Total .. ..	1,711	1,284	464	194	244	133	4,030
Accommodation— Number of beds and cots	9,741	6,089	2,715	1,488	1,759	748	22,540

(a) The figures relate to years ended as follows :—New South Wales, Queensland and Tasmania—30th June, 1932 ; other States—31st December, 1931. (b) Includes four licensed private houses, in which cases at the end of the year numbered 94 ; other particulars not available.

(iii) *Patients, 1931.* Information regarding patients treated, deaths, etc., for the year 1931 is given in the table hereunder :—

**HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1931.(a)**

Particulars.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year (c)—							
Males .. ..	6,138	3,659	(d)	913	949	372	12,031
Females .. ..	5,019	3,846	(d)	741	468	352	10,426
Total .. ..	11,157	7,505	(d)	1,654	1,417	724	22,457
Number of patients on books at beginning of year—							
Males .. ..	5,325	3,235	1,906	775	855	326	12,422
Females .. ..	4,345	3,435	1,202	629	420	309	10,340
Total .. ..	9,670	6,670	3,108	1,404	1,275	635	22,762
Admissions and re-admissions exclusive of absconders retaken (c)—							
Males .. ..	813	424	314	138	94	46	1,829
Females .. ..	674	411	197	112	48	43	1,485
Total .. ..	1,487	835	511	250	142	89	3,314
Discharges (including absconders not retaken)—							
Males .. ..	329	164	143	60	48	22	766
Females .. ..	348	172	108	64	17	22	731
Total .. ..	677	336	251	124	65	44	1,497

(a) See footnote (a) to previous table.

(b) Exclusive of four licensed private houses.

(c) Exclusive of transfers.

(d) Not available.

HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1931(a)—*continued.*

Particulars.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<b>Deaths—</b>							
Males .. .. .	362	260	141	78	55	17	913
Females .. .. .	224	205	65	57	22	17	590
<b>Total .. .. .</b>	<b>586</b>	<b>465</b>	<b>206</b>	<b>135</b>	<b>77</b>	<b>34</b>	<b>1,503</b>
<b>Number of patients on books at end of year—</b>							
Males .. .. .	5,447	3,235	1,936	775	846	333	12,572
Females .. .. .	4,447	3,469	1,226	620	429	313	10,504
<b>Total .. .. .</b>	<b>9,894</b>	<b>6,704</b>	<b>3,162</b>	<b>1,395</b>	<b>1,275</b>	<b>646</b>	<b>23,076</b>
<b>Average daily number resident—</b>							
Males .. .. .	5,141	2,801	1,929	773	822	327	11,793
Females .. .. .	4,096	3,058	1,187	631	409	313	9,694
<b>Total .. .. .</b>	<b>9,237</b>	<b>5,859</b>	<b>3,116</b>	<b>1,404</b>	<b>1,231</b>	<b>640</b>	<b>21,487</b>
<b>Number of patients on books at end of year per 1,000 of population—</b>							
Males .. .. .	4.26	3.64	3.79	2.57	3.75	3.01	3.79
Females .. .. .	3.59	3.81	2.71	2.19	2.19	2.78	3.29
Persons .. .. .	3.93	3.72	3.28	2.38	3.02	2.89	3.54
<b>Average number of patients resident in hospitals for insane per 1,000 of mean population—</b>							
Males .. .. .	4.04	3.15	3.80	2.57	3.64	3.00	3.57
Females .. .. .	3.32	3.37	2.64	2.23	2.10	2.82	3.05
Persons .. .. .	3.68	3.26	3.25	2.41	2.93	2.91	3.31

(a) See footnote (a) to previous table.

(b) Exclusive of four licensed private houses.

In some States persons well advanced towards recovery are allowed to leave the institutions and reside with their relatives or friends, but they are under supervision and their names are kept on the books.

(iv) *Revenue and Expenditure, 1931.* The revenue of Government asylums is small in comparison with their cost, and consists chiefly of patients' fees. The proportion of expenditure borne by the State amounts to about 85 per cent.

HOSPITALS (GOVERNMENT) FOR THE INSANE.—FINANCES, 1931.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<b>Revenue (Exclusive of Government Grants)—</b>							
Fees of Patients .. .. .	92,307	36,527	24,473	19,237	15,732	10,029	198,305
Other .. .. .	2,156	4,779	367	3,349	1,774	411	12,836
<b>Total .. .. .</b>	<b>94,463</b>	<b>41,306</b>	<b>24,840</b>	<b>22,586</b>	<b>17,506</b>	<b>10,440</b>	<b>211,141</b>
<b>Expenditure—</b>							
Salaries and Wages .. .. .	385,828	241,791	116,136	48,293	54,417	27,754	874,219
Upkeep and Repair of Buildings and Grounds .. .. .	.. .. .	5,220	1,219	3,558	1,181	481	11,659
All Other .. .. .	186,442	129,869	64,158	40,089	31,015	18,936	470,509
<b>Total .. .. .</b>	<b>572,270</b>	<b>376,880</b>	<b>181,513</b>	<b>91,940</b>	<b>86,613</b>	<b>47,171</b>	<b>1,356,387</b>
<b>Expenditure per Average Daily Resident .. .. .</b>	<b>£61/19/1</b>	<b>£64/6/6</b>	<b>£58/5/0</b>	<b>£65/9/8</b>	<b>£70/7/2</b>	<b>£73/14/1</b>	<b>£63/2/6</b>

(a) The figures relate to years ended as follows:—South Australia—31st December, 1931; other States—30th June, 1932. (b) Includes £3,821, covering such items as Cost of New Buildings and Additions to Buildings.



(v) *Summary for Australia, 1927 to 1931.* The table hereunder gives a summary for hospitals for the insane in Australia for each of the five years 1927 to 1931. The figures for the States cannot be brought to a common year; consequently the following particulars relate to a combination of calendar and financial years. Licensed houses are included in the number of institutions for Victoria, and in all particulars save expenditure for New South Wales. The figures are exclusive of reception houses and observation wards in gaols. In the case of New South Wales the expenditure figures include cost of Broken Hill patients treated in South Australian hospitals:—

**HOSPITALS FOR THE INSANE.—SUMMARY, AUSTRALIA.**

Particulars.	1927.	1928.	1929.	1930.	1931.
Number of institutions .. ..	34	36	38	37	36
Number of beds .. ..	19,474	19,467	20,951	21,779	22,540
Admissions .. ..	3,466	3,537	3,471	3,443	3,314
Discharged as recovered, relieved, etc.	1,576	1,669	1,625	1,558	1,497
Deaths .. ..	1,433	1,429	1,451	1,297	1,503
Expenditure—Total .. ..	£ 1,666,061	1,706,259	1,721,602	1,539,003	1,356,387
„ —Per Average Daily Resident .. ..	£84/2/3	£84/1/8	£83/11/10	£72/17/8	£63/2/6

(vi) *Number of Insane, 1927 to 1931.* The proportion of insane, as well as the total number returned as under treatment, shows a continuous increase during the period covered by the table. The more rapid increase during the last two years is possibly a reflection of the financial stress of the period. The next table gives the number of insane under official care in Australia, and the proportion per 1,000 of population for the last five years.

**INSANE PERSONS IN INSTITUTIONS.**

State.	1927.	1928.	1929.	1930.	1931.
NUMBER.					
New South Wales .. ..	8,898	9,104	9,377	9,670	9,894
Victoria .. ..	6,360	6,501	6,531	6,669	6,704
Queensland .. ..	3,017	3,032	3,042	3,108	3,162
South Australia .. ..	1,306	1,350	1,374	1,404	1,395
Western Australia .. ..	1,188	1,229	1,252	1,274	1,275
Tasmania .. ..	623	615	622	635	646
<b>Australia .. ..</b>	<b>21,392</b>	<b>21,831</b>	<b>22,198</b>	<b>22,760</b>	<b>23,076</b>
PER 1,000 OF POPULATION.					
New South Wales .. ..	3.71	3.72	3.78	3.87	3.93
Victoria .. ..	3.65	3.69	3.68	3.72	3.72
Queensland .. ..	3.36	3.31	3.27	3.28	3.28
South Australia .. ..	2.27	2.33	2.37	2.41	2.38
Western Australia .. ..	3.03	3.03	3.00	3.03	3.02
Tasmania .. ..	2.89	2.84	2.84	2.88	2.89
<b>Australia .. ..</b>	<b>3.43</b>	<b>3.45</b>	<b>3.46</b>	<b>3.51</b>	<b>3.54</b>

The difference between States in the number of insane persons in institutions per 1,000 of population may be due to some extent to differences in classification of the insane.

A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an earlier stage, and an increase in the number of recorded cases, therefore, does not necessarily imply an actual increase in insanity.

(vii) *Causes of Insanity.* The general information available respecting the causes of the insanity of persons admitted to institutions is too unsatisfactory to be given in detail.

(viii) *Length of Residence in Hospital.* Information concerning the length of residence of persons who died or were discharged was given in earlier Year Books (See No. 22, p. 491).

6. *Care of the Feeble-minded.*—An account of the treatment of the feeble-minded, supplied by the Public Health Department of Tasmania, appeared in Official Year Book No. 19, pp. 477 and 478.

7. *Protection of Aborigines.*—For the protection of the aboriginal Australian race there are institutions, under the supervision of Aborigines Boards, where these people are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic, and receive food and clothing when they call, whilst others but rarely come under the notice of the Boards. The native race is extinct in Tasmania. The expenditure from Consolidated Revenue in 1931-32 was, New South Wales, £53,124; Victoria, £7,153; Queensland, £41,128; South Australia, £23,000; Western Australia, £21,187 (exclusive of aboriginal cattle stations, net revenue, £2,109); Northern Territory, £7,670 (including £1,320, Government subsidy to aboriginal mission stations); total for Australia, £153,262. According to the latest census taken by the Commonwealth Bureau of Census and Statistics, the numbers of full-blood and half-caste aborigines living in supervised camps in each State at 30th June, 1932, were as follow:—

ABORIGINES.(a)—AUSTRALIA—30th JUNE, 1932.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Northern Territory.	Total.
	No.	No.	No.	No.	No.	No.	No.
Full-bloods ..	368	29	5,812	109	1,589	2,054	9,961
Half-castes ..	2,794	196	1,648	557	630	244	6,069

(a) Living in supervised camps. See letterpress above table.

8. *Royal Life Saving Society.*—In each of the State capitals, "centres" of the Royal Life Saving Society have been established, and in some States sub-centres have been established in the larger provincial districts. Saving of life from drowning and other forms of asphyxiation is the object of the Society, and its immediate aims are (a) educative and (b) remedial. The encouragement of swimming and life-saving in schools, colleges, clubs, etc., will bring about a more widespread knowledge of these necessary matters, and there is increasing provision of life-belts, reels, lines, and other first-aid appliances on ocean beaches, wharves, and other suitable places. Upwards of 10,000 certificates of proficiency in various grades are issued annually after examination throughout Australia, the numbers for the individual States for 1932 being New South Wales, 4,352; Victoria, 2,031; Queensland, 438; South Australia, 564; Western Australia, 2,253 (1930); and Tasmania, 222.

9. *Royal Humane Society.*—The Royal Humane Society of Australasia has for its objects (a) to grant awards for skill, promptness, and perseverance in life-saving, where the rescuer has risked his or her life; (b) to provide assistance in cases of danger and apparent death; (c) to restore the apparently drowned. (d) to collect and circulate the latest information regarding approved methods and apparatus for life-saving.

Awards of medals and certificates are made numbering about 100 annually. Upwards of 300 lifebuoys have been provided at various places on the coasts, rivers, lakes, and reservoirs in the various States. Swimming is encouraged amongst school children, and awards are made for proficiency.

10. **Other Charitable Institutions.**—Owing to variety of name and function of other charitable institutions it has been found impracticable to give detailed results. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity, to indoor treatment over long periods in those that exist for the relief of the aged and the infirm. The institutions not so particularized include asylums for the deaf, dumb, and blind, infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, homes of hope, rescue homes, free kindergarten and ragged schools, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys' brigades, humane and animals' protection societies, prisoners' aid associations, shipwreck relief societies, bush fires and mining accident relief funds, etc.

11. **Total Expenditure on Charities.**—Issues of the Official Year Book, prior to No. 24, embodied statistics of expenditure on charities. The returns available, however, included a portion only of direct expenditure by Governments, and, in general, there is want of a harmony in the information available for the different States. Pending the result of further inquiry it has been decided to omit this table from the present chapter.

## CHAPTER XI.

### PUBLIC HYGIENE.

#### § 1. Public Health Legislation and Administration.

Reference to the various public health authorities, Commonwealth and State, their functions, and the legislation administered, may be found in earlier issues of the Official Year Book (see No. 22, pp. 493 to 495).

#### § 2. Inspection and Sale of Food and Drugs.

Legislation is in force in each State concerning the inspection and sale of food and drugs, the general objects being to secure the wholesomeness, cleanliness, and freedom from contamination or adulteration of any food, drug or article; and the cleanliness of receptacles, places, and vehicles used for their manufacture, storage or carriage. For further particulars in this connexion, and with respect also to the sale and custody of poisons, reference should be made to Official Year Book, No. 22, pp. 495-497.

#### § 3. Supervision of Dairies, Milk Supply, etc.

1. **General.**—In earlier issues (see No. 22, pp. 497 to 499), allusion is made to the legislation in force in the various States to ensure the purity of the milk supply and of dairy produce generally.

2. **Number of Dairy Premises Registered.**—The following table shows, so far as the particulars are available, the number of dairy premises registered and the number of cattle thereon. Compulsory registration is not in force throughout the whole area of the various States.

**DAIRY PREMISES REGISTERED, AND CATTLE THEREON, 1932.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.
Premises registered ..	22,094	28,432	28,815	10,500	<i>(b)</i>	<i>(b)</i>
Cattle thereon ..	1,055,729	386,261	775,301	<i>(a)</i> 68,533	<i>(b)</i>	<i>(b)</i>

*(a)* Estimated.

*(b)* Not available.

#### § 4. Control of Infectious and Contagious Diseases.

1. **General.**—The provisions of the various Acts in regard to the compulsory notification of infectious diseases and the precautions to be taken against the spread thereof may be conveniently dealt with under the headings—Quarantine; Notifiable Diseases, including Venereal Diseases; and Vaccination.

2. **Quarantine.**—The Quarantine Act is administered by the Commonwealth Department of Health, and uniformity of procedure has been established in respect of all vessels, persons, and goods arriving from overseas ports or proceeding from one State to another, and in respect of all animals and plants brought from any place outside Australia. In regard to interstate movements of animals and plants, the Act becomes operative only if the Governor-General be of opinion that Federal action is necessary for the protection of any State or States; in the meantime the administration of inter-state quarantine of animals and plants is left in the hands of the States. The Commonwealth possesses stations in each State for the purposes of human and of animal quarantine.

Further information concerning the chief provisions of the Act and its administration is given in some detail in earlier issues (see No. 22, p. 500).



DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY AND NOTIFICATIONS FOR THE YEAR ENDED 31ST DECEMBER, 1932—*continued.*

Disease.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Fed. Cap. Ter.	N.T.
Tetanus .. .. .	*	15	*	*	*	*	*	*
Trichinosis .. .. .	*	*	*	Nil	*	*	*	*
Tuberculosis (h) .. .. .	1,469	1,119	248	342	363	167	6	5
Tuberculosis in Animals .. .. .	*	*	*	Nil	*	*	*	*
Typhoid (i) .. .. .	233	95	106	46	41	25	Nil	Nil
Typhus (j) .. .. .	Nil	Nil	(k)3	(k)4	(k)36	Nil	Nil	Nil
Undulant Fever .. .. .	*	*	*	*	*	*	*	Nil
Whooping Cough .. .. .	*	*	*	1,542	*	*	*	Nil
Yellow Fever .. .. .	Nil	Nil	Nil	Nil	Nil	Nil	Nil <sup>3</sup>	Nil

(a) Includes Cerebro-Spinal fever. (b) Includes Membranous Croup. (c) Bacillary and Amœbic. (d) Since 26th May, 1932. (e) Includes Poliomyelitis Anterior Acute, Infantile Paralysis and Polioencephalitis. (f) Includes Puerperal Pyrexia. (g) Includes Scarlatina. (h) Includes all forms except in New South Wales, Western Australia and Northern Territory where only pulmonary tuberculosis is notifiable. (i) Includes Enteric Fever and Paratyphoid. (j) Includes Brill's disease, Endemic Typhus and Tropical Typhus. (k) Cases recorded are all of the mild form known as Brill's disease or Endemic Typhus.

**B. Venereal Diseases.**—(i) *General.* The prevention and control of venereal diseases are undertaken by the States. Each State has a Venereal Diseases Act, or provisions in the Health Act govern the working of the measures taken to combat these diseases. Under these Acts notification has been made compulsory in every State except South Australia, where the Venereal Diseases Act has not yet been proclaimed. Steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals and clinics. Registered pharmaceutical chemists are allowed to dispense prescriptions only when signed by medical practitioners. Clinics have been established, and, in some cases, beds in public hospitals have been set aside for patients suffering from these diseases.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any patient or the employment of an infected person in the manufacture or distribution of foodstuffs.

For several years the Commonwealth Government granted a subsidy to each of the States to assist in providing hospital treatment and administrative control of venereal diseases, but this subsidy has been discontinued.

In 1927 a Division of Tuberculosis and Venereal Disease was established in the Commonwealth Department of Health, with a medical officer as Director. This Division ceased to exist in April, 1932.

(ii) *Details by States.* A statement of the preventive provisions in each State, together with certain statistical data, appeared in earlier Year Books (see No. 22, pp. 503 and 504).

**4. Vaccination.**—(i) *Demand for Vaccine.* In New South Wales there is no statutory provision for compulsory vaccination, though in all the other States such provision has been made. Jennerian vaccine for vaccination against small-pox is prepared at the Commonwealth serum laboratories in Melbourne. A moderate demand exists for the vaccine in Victoria, but in the other States the normal requirements are small.

(ii) *Details by States.* In earlier issues of the Year Book (see No. 22, pp. 504 and 505) information was given concerning the provisions regarding vaccination in each State.

**5. Commonwealth Serum Laboratories.**—The establishment for the preparation of Jennerian vaccine situated at Royal Park, near Melbourne, formerly known as the "Calf Lymph Depot," was in 1918 greatly enlarged by the Commonwealth. The remodelled

institution is designated the "Commonwealth Serum Laboratories," and forms an activity of the Commonwealth Department of Health. The list of biological preparations produced by the laboratories has been extended to cover a wide range, thus forming a valuable national provision for the protection of public health.

**6. Health Laboratories.**—The Commonwealth Department of Health has established health laboratories at Rabaul in New Guinea, at Lismore in New South Wales, at Bendigo in Victoria, at Townsville, Toowoomba, Rockhampton and Cairns in Queensland, at Port Pirie in South Australia, at Kalgoorlie in Western Australia, and at Launceston in Tasmania.

The laboratory at Rabaul which until 1930 was carried on in conjunction with the hookworm campaign, and was working in close co-operation with the health organization of the New Guinea Administration, was transferred to the Administration at the beginning of 1930.

The Bendigo Laboratory, which was the first of these laboratories to be established, was opened in 1922. Besides carrying on the ordinary diagnostic and educational work of a health laboratory, it possesses an X-ray equipment, and undertakes the examination, diagnosis, and treatment of persons suffering from miner's disease and tuberculosis.

By arrangements between the Commonwealth and Western Australian Governments a special medical survey of persons engaged in the mining industry in Western Australia was carried out in 1925-26 by the Commonwealth Health Laboratory at Kalgoorlie. A further arrangement provided for the re-examination annually of mine employees in the Kalgoorlie district and by means of a mobile X-ray unit in outlying districts. This work is still being carried out.

**7. Industrial Hygiene.**—The Industrial Hygiene Division of the Commonwealth Department of Health was established in December, 1921. Its objects were the collection of reliable data, the investigation of industrial conditions affecting health, and the issue of advice to employers and employees for the improvement of conditions of work and for the safeguarding of health. Publications were issued dealing with the scope of industrial hygiene, and with health hazards in industry. With a view to the adoption of a concerted scheme of action and a uniform basis for standards and records throughout Australia, conferences of delegates from the State Health and Labour Departments and the Commonwealth Department of Health were held in 1922, 1924, and in 1927. This Division ceased to exist with the re-organization of the Department in April, 1932.

A special article entitled "Industrial Hygiene in Australia" will be found in Official Year Book No. 18, pp. 522 to 555.

**8. Veterinary Hygiene and Plant Quarantine.**—In 1927 Directors were appointed to control divisions of the Commonwealth Department of Health, which have been created to deal with veterinary hygiene and plant quarantine.

## § 5. Tropical Diseases.

**1. General.**—The remarkable development of parasitology in recent years, and the increase in knowledge of the part played by parasites in human and animal diseases, have shown that the difficulties in the way of tropical colonization, in so far as these arise from the prevalence of diseases characteristic of tropical countries, are largely removable by preventive and remedial measures. Malaria and other tropical diseases are coming more and more under control, and the improvements in hygiene and the production of new synthetic drugs for treatment which science has accomplished, have resulted in a new outlook on the question of white settlement in countries formerly regarded as unsuitable for colonization by European races. In Australia, the most important aspect of this matter is at present in relation to such diseases as hookworm, filariasis, dengue fever, and to a lesser extent, malaria, which, although practically unknown in southern Australia, occur in many of the tropical and sub-tropical parts.

A Division of Tropical Hygiene of the Commonwealth Department of Health was established to deal with these diseases and other aspects of tropical hygiene. This Division ceased to exist as such with the re-organization of the Department in April, 1932.

2. **Transmission of Disease by Mosquitoes.**—Information under this heading has appeared in earlier issues (see No. 22, pp. 506 and 507).

3. **Control of Introduced Malaria and Bilharziasis.**—Reference to this subject may be found in earlier Year Books (see No. 22, p. 507).

4. **Hookworm.**—Reference to this subject may be found in earlier Year Books (see No. 25, pp. 416 and 417).

5. **Australian Institute of Tropical Medicine.**—The Australian Institute of Tropical Medicine was founded at Townsville in January, 1910. From 7th March, 1921, to 3rd March, 1930, when it was merged in the School of Public Health and Tropical Medicine, Sydney University, the Institute was administered by the Commonwealth Department of Health, and a full account of its activities from its foundation up to 1922 will be found in Official Year Book No. 15, pp. 1010-1012.

6. **School of Public Health and Tropical Medicine, Sydney University.**—The Commonwealth Government, under an agreement with the Sydney University, established a School of Public Health and Tropical Medicine at the Sydney University as from 4th March, 1930, for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new School, and the staff, equipment, and material have been transferred to Sydney.

Since 1922 a number of investigations has been carried out, including the physiology of white population in the tropics, causes of obscure tropical fevers, sociological survey of certain tropical areas of Queensland, the destruction of mosquito larvae and the control of mosquitoes in the larger centres of population, tropical diseases among the aboriginals on Palm Island, leprosy among aboriginals in the Northern Territory, prevalence of filariasis in Cairns, Yarrabah Mission Station, Port Douglas, Mossman and Innisfail, and reputed foci of malaria in tropical Queensland. Courses of instruction in tropical medicine and hygiene commence in May of each year, and continue for four months. Ten publications dealing with various aspects of tropical medicine, etc., have been issued.

7. **Royal Commission on National Health, etc.**—Information concerning the following subjects may be found in previous Year Books (see No. 22, pp. 509 and 510):—(a) Royal Commission on National Health appointed by the Commonwealth Government in 1924; (b) Travelling Study Tours under the League of Nations; (c) International Sanitary Convention; (d) Far Eastern Epidemiological Bureau, Singapore; and (e) International Pacific Health Conference.

## § 6. Organization for the Control of Cancer.

The persistent increase in cancer mortality has led to the development in Australia of a national organization directed towards the control of this disease. Treatment centres, fully equipped to carry out investigation and treatment by all modern methods, have been formed at the principal hospitals. A large amount of radium, purchased in 1928 by the Commonwealth Government for use in treatment and research, has been distributed on loan to the treatment centres. Treatment is available to all requiring it irrespective of ability to pay. The work is co-ordinated by the Commonwealth Department of Health. Records of treatment and the results obtained are kept by all treatment centres on uniform lines and are collected and analysed. Close co-operation is maintained between research workers, physicists and bio-chemists and the medical men engaged in the clinical investigation and treatment of the disease so that problems



are mutually investigated. An annual conference is held at which those actively engaged in the campaign against the disease meet for the discussion of problems and the determination of lines of action. The report of this conference is published by the Commonwealth Department of Health and is widely distributed.

At the Melbourne University the Commonwealth Government maintains a radium laboratory for the purposes of the production of radon for use in treatment, the construction and repair of radium apparatus and for research into problems of treatment and protection. During the year 1932 a total of 13,584 millicuries of radon were issued by this laboratory and used in the treatment of cancer.

Realizing the essential importance of accuracy in determining the quality of X-rays used in the treatment of cancer and in measuring the dosage of the radiations delivered to a patient under treatment, the Commonwealth Government provided the apparatus necessary for the calibration of dosage meters and voltage meters throughout Australia. This apparatus was constructed at the Commonwealth Radium Laboratory at the University of Melbourne, and is now available for use. Meantime the cancer treatment centres are equipping themselves with the necessary measuring instruments. Treatment by means of X-rays has thus been placed on a more scientific footing.

### § 7. Medical Inspection of School Children.

1. **General.**—Medical inspection of school children is carried out in all the States. Medical staffs have been organized, and in some States travelling clinics have been established to deal with dental and ocular defects.

2. **New South Wales.**—A complete system of medical inspection of school children came into operation in this State in 1913. The scheme includes, in country districts, the medical examination of every child at least twice during the compulsory period of school attendance (7–14 years), but, owing to the present need for economy, only one School Medical Officer (Oculist) was working in country districts in 1932. (However, the country work has been extended since the beginning of 1933 on similar lines to those formerly operating, but on a modified basis, 4 officers being detailed for duty in country districts.) In the metropolitan area, the scheme provides for the full medical examination of all “entrants” and “leavers” (1st class in Infants’ Departments and children 13 years of age respectively), and the review of all cases found defective between those ages. Parents are notified of the defects found in children, and urged to have them treated. In the metropolitan area, these notices are reinforced by “follow up” work of school nurses, who also arrange hospital and clinic treatment in many cases.

In 1932 the staff comprised 11 medical officers (including one oculist), 9 dental officers, 8 dental assistants, 9 school nurses, and 9 clerical officers. With the exception of the one school oculist working in country areas, the whole of the school medical work was concentrated in metropolitan schools.

Of the 9 Travelling Dental Clinics (8 of which were each staffed by a dental officer and dental assistant), 6 work in metropolitan schools and 3 in country districts. One of the metropolitan officers was also engaged half-time at the clinic attached to the Out-patient Department of the Royal Alexandra Hospital for Children.

Special attention is paid to the supervision of the health of High School pupils, both girls and boys, and these schools in the metropolitan, Newcastle, and Wollongong districts are visited by school medical officers once a year for this purpose.

The same health supervision is maintained by a woman medical officer attached whole-time to the Sydney Teachers’ College, and part-time by a woman officer at Armidale Teachers’ College. Every student, on entering the colleges, is medically examined, and any defects found must be remedied before final acceptance. A course of lectures on hygiene, which every student attends, is given by the medical officers.

The medical and psychological examination of delinquent boys brought before the Children's Court is carried out by a male medical officer, and 1,555 boys were examined in 1931 and 1,171 in 1932. The examination of certain girl delinquents is undertaken by a woman medical officer, who also carries out the examination and health supervision of children in residence at the Glenfield Special School for backward children.

From time to time, mass investigations are made into the prevalence and distribution of certain abnormal conditions affecting the health of school children, such as goitre, acute rheumatism, trachoma, feeble-mindedness, crippling, left-handedness, stammering, etc.

During 1931, 52,340 children were fully examined, 19,976 (38.2 %) were notified for treatment of physical defects, including 8,790 (16.8 %) for defects other than dental. In addition, 38,513 children were "reviewed", of whom 15,076 (39.2 %) were notified for medical and dental defects.

During 1932, 44,918 children were fully examined, 16,572 (36.9%) were notified for treatment of physical defects, including 7,517 (16.7%) for defects other than dental. In addition, 36,843 children were "reviewed," of whom 12,690 (34.4%) were notified for medical and dental defects. Further, during 1932, 190 children were medically examined at Stewart House Preventorium and the Christmas Camp organized under the Far West Children's Health Scheme.

3. *Victoria*.—The system adopted provides for the medical examination of each child once every three years during its school life. With the doubling of the medical staff in 1925 the Department concentrated on country work, and medical inspection has been undertaken since that date in country and rural districts, reaching the most remote corners of the State. Medical inspection is now undertaken in all High schools, in practically all country State schools, and in about half of the metropolitan State schools, but in only a few of the registered and institutional schools.

Each school is visited once in every three years, and each child examined. In schools with an attendance of 70 or more, the older boys are examined by a medical man and the older girls by a medical woman. At this inspection every child is first weighed and measured, vision and hearing tested, then undressed to the waist and medically examined as for life assurance, but with a fuller investigation of many hygienic factors, which, at that age, greatly influence the health and growth of the child. Opportunity is also taken to teach the child healthy habits, how to correct faults, and also to get its co-operation for the remedying of defects found.

A school nurse employed by the Department is devoted to "follow-up" work, i.e., visiting the homes and getting treatment for children found defective by the school medical officers. Owing to the smallness of the staff her work is confined to the metropolitan area. The result of this work is that the treatment received is much greater than that which is obtained without such visits.

In addition to the medical examination, each child in those schools visited by the school dentist receives dental treatment on entrance to school (if under 8 years of age), and each year thereafter, until it is 12 years of age, when it is left dentally fit.

The present staff is arranged so that 3 dentists and 4 dental attendants are always on duty at the Melbourne Dental Centre, where children from the infant classes in the inner metropolitan schools are brought by the teacher for dental treatment.

A dentist with a dental attendant and equipment travels along the railway line far enough to give one year's work, using practically every town large enough to provide a day's work as a base. The school committees of the outlying schools are notified of the visit, and the parents are invited to bring to the base all children eligible for treatment, i.e., all children under 8 years of age, and all other children treated by the school dentists on previous visits. This method gives all schools in the district the opportunity for dental treatment.

The time of another dentist is fully occupied treating the children in the three largest country centres, Bendigo, Ballarat, and Geelong. In each of these cities a centre with a dentist, dental attendant, and equipment is established for about four months of the year, where children from the infant classes of the neighbouring schools are brought by the teacher or parents.

Three dentists with dental attendants are in charge of three fully-equipped dental vans, each of which has an itinerary which it completes each year. The advantage in the use of a dental motor van is that it is furnished as a dental surgery. It can be driven into the school yard and, immediately on its arrival, work can be commenced without any delay incidental to unpacking equipment, etc., and to the preparation of a room.

In no case is the same dental officer on the same trip for the whole year; work is distributed so that there is a change over at every school vacation—Christmas, May, and September. Those who have been in the country take a period of duty in the city and vice versa, while those who have been in the van on one trip will probably travel by train the next time, likewise there is constant change between dentist and dental attendants. By doing this it is felt that monotony is relieved, and that the standard of work is maintained at a higher level by the stimulus of change.

The staff of the medical branch consists of 7 full-time medical officers, 8 dentists, 10 dental attendants, and 1 school nurse.

During the year ended 30th June, 1932, 48,523 children and 1,523 teachers were medically examined, and 38,109 children received dental treatment. In addition, 5,509 homes were visited by the school nurse.

4. **Queensland.**—In matters affecting the general administration of the medical branch of the Department of Public Instruction, the Department acts on the advice of its Chief Medical Officer, who, while acting independently in all matters affecting individual schools, is in close touch with the Department of Public Health, and observes the policy of that Department in all matters connected with schools which may have direct bearing upon the health of the State.

Lack of funds has necessitated a reduction in Medical Staff. Medical inspection of schools and school children is at present carried out by two part-time medical officers. These officers, as far as possible, examine children for cardiac and pulmonary conditions, and in addition, make a thorough examination of all children referred to them by the school nurses; 10,261 were thus medically examined in 1932, and of these 1,884 were notified as suffering from some condition requiring correction.

Owing to financial stringency the number of nurses in the employ of the Department has been reduced to six. To each nurse is assigned a group of schools, and she is instructed to make a list at each school of those children whom she considers should be seen by the medical inspector at his next visit. She supervises the sanitation, cleanliness and ventilation of the school and notifies the head teacher of all infectious or verminous children or those suffering from impetigo, scabies, etc., who are then excluded. During the year 1932, school nurses examined 21,573 children. In the metropolitan area, the nurses examine the teeth and report all eligible carious cases to the Dental Hospital for treatment. The work of the school nurse is proving more and more valuable in keeping the standard of sanitation high and in controlling the general health of the children.

The Department has in its employ a staff of fourteen dentists. These officers are each assigned a district, and such district is not changed for three years unless for reasons which the Chief Medical Officer, on the recommendation of the Chief Dental Inspector, considers advisable. During the year 1932, 29,653 children were examined; 39,018 extractions were performed; and there were 34,668 fillings and 16,782 other treatments. Children and parents alike are beginning to realize the very great value of early dental treatment. The former appreciate the fact that, in the early stages of decay, they are not called upon to suffer pain during dental manipulations, and the latter see in the increased health and vigour of their children the practical value of such treatment.

The Medical Branch, under the direction of the Chief Medical Officer, consists of three sections known respectively as the Medical, Dental and Nursing Sections. These combined constitute the School Medical Service of the State.

At the Wilson Ophthalmic School Hostel children suffering from trachoma are treated and educated. They are admitted from time to time on the recommendation of the Chief Medical Officer. Beneficial results have already been obtained. The Institution is situated at Eildon Hill, Windsor, and is fully equipped to treat all types of eye case.

A Committee of Hookworm Control to deal with anchylostomiasis duodenale and Necator Americanus infestation throughout the State has now been established, the personnel being as follows:—Chairman—The Chief Quarantine Officer of the Commonwealth Department of Health at Brisbane; Members—The Public Health Commissioner for Queensland, the Chief Medical Officer, Department of Public Instruction, and the Chief Protector of Aborigines for Queensland.

The work of the Committee has resulted in a large reduction of this dangerous menace in the Northern Coastal Belt.

Following the policy of the Government to give the same medical and dental facilities to the children of the back country as are obtainable by city dwellers, a Rail Dental Clinic has been constructed. This consists of a carriage 21 feet long, divided into—

- (a) Lavatory and shower accommodation.
- (b) Sleeping and living room, fitted with all conveniences, including ice chest and two-burner Gloria cooking-stove. Ample drawer space is provided in dressing table, and under the sleeping berth.
- (c) Dental surgery fitted with all the latest appliances for dental treatment, including Gloria sterilizer and pressure filtered water. The dental engine is electrically driven and foot controlled. Perfect illumination is obtained by a dental spot light which is part of the chair equipment.
- (d) A compartment for waiting patients which also contains the engine and generator and batteries for lighting the car throughout.

A motor car is carried on a railway waggon at the rear, and can be used at each stopping place to visit the surrounding villages served by the rail centre. This unit operates in the distant and roadless parts of the State where there is difficulty in taking the present Road Motor Clinic.

5. **South Australia.**—Medical inspection embraces the examination of all children attending primary, central, high and technical high schools. Each child is examined approximately once in three years. Reports are furnished to parents of defects likely to interfere with educational progress. The staff consists of 1 principal medical officer, 2 medical inspectors, 1 psychologist, 1 dentist, 1 trained nurse and 1 dental assistant. City children can now receive dental treatment at the Dental Hospital or at the Children's Hospital, North Adelaide. The medical inspectors meet the parents after the examination of the children, report any defects, and recommend treatment. It has been found that a personal talk is of greater value than a written notice. The psychologist examines retarded children and supervises their work in the opportunity classes which have been established for their benefit.

During the year 1932, 22,272 children were examined by the medical inspectors; of these 562 required notices for defective vision, 108 for defective hearing, and 1,238 for adenoids and tonsils. Six hundred and thirty-six children were individually examined by the psychologist. Research work in left-handedness and colour blindness is being undertaken.

6. **Western Australia.**—Under the Public Health Act 1911-1922, the medical officers of health appointed by the local authorities became medical officers of schools and school children. In the Health Department there are two full-time medical officers for schools, whose duty is to conduct medical examinations, and two school nurses are employed. During 1932, 12,228 (6,047 country and 6,181 metropolitan) children were examined. These figures do not include recalls or specials.

7. **Tasmania.**—Tasmania was the first State in Australia to provide for the medical inspection of State school children, its system of inspection having been initiated in 1906. During the year 1931, however, for financial reasons, medical inspection ceased,

dental clinics were closed and the services of all doctors and dentists were terminated, although the Department still retained the services of four nurses, whose chief duty is to visit the homes to advise the parents as to the treatment of defects disclosed by the medical examination. Prior to this date the various municipal health officers were employed as medical inspectors visiting country schools, and, in the case of epidemics, these officers paid special visits when required, while two part-time medical officers conducted examinations of school children in Hobart and Launceston. Country schools were visited by medical officers about once a year. There were four full-time dental officers—two working at dental clinics in Hobart and Launceston, and two visiting the smaller country schools.

8. **Federal Capital Territory.**—By arrangement education facilities are provided by the Education Department of New South Wales. The Commonwealth Department of Health, however, took over from the State in 1930 the medical inspection of school children and carried out examinations of entrants and leavers during 1930. No statistical information is available for that year, but a complete examination of school children was made in 1931. The number of children examined was 1,234, and some evidence of a pathological condition was found in 69.7 per cent. In 47.6 per cent. some pathological condition of the nose or naso-pharynx was found; 38.2 per cent. had defective teeth; in 4.4 per cent. the eye required attention, and in 1.4 per cent. the ear; and in 2 per cent. the heart showed evidence of a departure from normal.

### § 8. Supervision and Care of Infant Life.

1. **General.**—The number of infantile deaths and the rate of infantile mortality for the last five years are given in the following table, which shows that during the period 1928 to 1932 no less than 29,299 children died in Australia (excluding Territories) before reaching their first birthday. With few exceptions, the rate of mortality in the metropolitan area is consistently greater than that for the remainder of the State. Further information regarding infantile mortality will be found in Chapter "Vital Statistics":—

#### INFANTILE DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1928.	1929.	1930.	1931.	1932.	1928.	1929.	1930.	1931.	1932.
<b>NUMBER OF INFANTILE DEATHS.</b>										
New South Wales	1,047	1,267	1,099	850	686	1,954	1,706	1,499	1,225	1,154
Victoria ..	1,016	855	853	713	630	903	732	691	636	551
Queensland ..	298	289	227	210	215	603	562	530	444	483
South Australia ..	292	221	256	167	149	250	215	227	163	163
Western Australia	233	269	218	176	161	186	239	212	179	191
Tasmania ..	81	59	66	59	48	219	196	176	160	137
Australia (b) ..	2,967	2,960	2,719	2,175	1,892	4,115	3,650	3,335	2,807	2,679
<b>RATE OF INFANTILE MORTALITY.(a)</b>										
New South Wales	49.50	56.68	50.03	44.33	39.01	58.09	56.27	49.70	42.78	42.26
Victoria ..	56.82	50.69	50.80	47.88	47.67	54.35	43.74	42.30	41.19	38.67
Queensland ..	48.26	49.58	39.23	40.84	50.00	44.31	44.40	40.30	34.99	36.96
South Australia ..	49.09	43.81	54.72	40.46	38.70	45.79	38.25	42.78	32.92	34.90
Western Australia	60.74	63.99	51.40	46.10	47.54	38.21	49.31	42.75	37.84	42.30
Tasmania ..	80.92	56.73	60.61	58.76	48.83	59.35	52.17	47.61	42.58	39.05
Australia (b) ..	52.99	53.49	49.84	45.25	43.61	52.84	49.37	45.31	39.98	39.80

(a) Number of deaths under one year per 1,000 births registered.

(b) Exclusive of Territories.

During recent years greater attention has been paid to the fact that the health of the community depends largely on pre-natal as well as after care in the case of mothers and children. Government and private organizations are, therefore, taking steps to provide instruction and treatment for mothers before and after confinement, while the health and well-being of mother and child are looked after by the institution of baby health-centres, baby clinics, crèches, visitation by qualified midwifery nurses, supervision of milk supply, etc.

2. **Government Activities.**—In all the States Acts have been passed with the object of supervising and ameliorating the conditions of infant life and reducing the rate of mortality. Government Departments control the boarding-out to suitable persons of the wards of the State, and wherever possible the child is boarded-out to its mother or near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children. (See also in this connexion Chapter X.—Public Benevolence.) Under the provisions of the Maternity Allowance Act 1912–1932, a sum of four pounds is payable to the mother in respect of each confinement at which a living or viable child is born, provided the total income of the claimant and her husband for the period of twelve months preceding the date of the birth did not exceed £208. Further particulars regarding Maternity Allowance are given in Chapter XIV.—Public Finance.

3. **Nursing Activities.**—(i) *General.* In several of the States, the Government maintains institutions which provide treatment for mothers and children, while, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *Details by States.* In earlier issues of the Year Book (see No. 22, pp. 515 and 516) information, with certain statistical data, concerning the activities of institutions in each State may be found.

(iii) *Summary.* The following table gives particulars of the activities of the Baby Health Centres and the Bush Nursing Associations :—

**BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1932.**

Heading.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Total.
Baby Health Centres—								
Metropolitan No.	41	74	5	38	10	2	1	171
Urban-Provincial and Rural No.	62	65	11	7	8	8	..	161
Total . No.	103	139	16	45	18	10	1	332
Attendances at Centres .. No.	490,123	386,336	128,923	94,791	66,719	29,995	3,493	1,200,380
Visits paid by Nurses .. No.	65,737	72,219	12,361	33,780	11,786	11,827	599	208,309
Bush Nursing Association, Number of Centres ..	39	63	11	(a) 29	(b) 5	17	..	164

(a) District Trained Nursing Society.

(b) Pre-natal auxiliary hostels.

The number of attendances at the Baby Health Centres has increased very considerably in recent years, having more than doubled since 1927. The following are the attendances for the years 1927 to 1931 :—1927, 591,240; 1928, 724,801; 1929, 822,312; 1930, 919,893; and 1931, 1,150,619.

## CHAPTER XII.

## DEFENCE.

## § 1. Military Defence.

1. *State Systems.*—A detailed historical account of the Australian defence forces prior to Federation will be found in Official Year Book No. 2, pp. 1075–1080. See also Official Year Book No. 12, p. 999.

The strength of the military forces of the States on the 31st December, 1900 (the eve of Federation) was :—New South Wales, 9,338 ; Victoria, 6,335 ; Queensland, 4,028 ; South Australia, 2,932 ; Western Australia, 2,696 ; Tasmania, 2,024 ; total for Australia, 27,353. This total was exclusive of cadets, reservists, and rifle club members.

2. *Commonwealth System.*—(i) *General.* Under the terms of the Constitution Act 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in five phases, viz. :—

- (a) The first phase, i.e., the welding together of the military forces of the States into one homogeneous army, was entrusted by the Government in 1902 to Major-General Sir Edward Hutton, K.C.B., K.C.M.G., and a sound foundation was laid, upon which the subsequent organization and training were based.
- (b) The second phase was the introduction of Universal Training in 1911. During the year 1909 a measure providing for universal training was enacted, and the scheme came into force in 1911 after the advice and recommendations of the late Lord Kitchener had been obtained. By the Defence Acts of 1903 and 1904 all male inhabitants between the ages of 18 and 60 years were made liable to serve in Australia with the defence forces in *time of war*. Subsequent legislation made training and service compulsory up to the age of 26 years *in time of peace*. By the Act of 1909 the principle of universal liability to training was made law for the first time in any English-speaking community. More detailed reference to these matters will be found in Official Year Book No. 12, p. 999 *et seq.*
- (c) The third phase, *Divisional Organization*, came into operation from the 1st May, 1921. Under this system a war organization, evolved from the Australian Imperial Force, is applied to peace conditions, with a minimum of permanent personnel. Numbers of units and formations were altered to correspond with those of the A.I.F. and every effort was made to maintain the traditions established by those units in the Great War.
- (d) The fourth phase, which was initiated by the Government in 1922, entailed the reduction of the Divisional Organization to a nucleus force.
- (e) The fifth phase, the suspension of all compulsory obligations *in time of peace* (under Part XII. of the Defence Act) and the reconstitution of the forces on a basis of voluntary enlistment, was brought into operation as from 1st November, 1929. The Divisional Organization was retained, but the peace nucleus was reduced from 48,000 Citizen Forces and 16,000 Senior Cadets to 35,000 Militia Forces and 7,000 Senior Cadets by reductions in the training establishments of units and by ceasing to maintain certain light horse regiments and infantry battalions. The peace nucleus of the Militia Forces was further reduced to 30,000 in 1931.

(ii) *Military Population.* In connexion with the numbers available, the figures of male population are of interest. The total number at cadet age, i.e., between 12 and 18, at the Census of 1921 (4th April), was about 300,000 ; at citizen soldier age, i.e., between 18 and 26, 354,000 ; these latter, with 409,000 at ages between 26 and 35, give 763,000 as the total males at the best period for military service. It is estimated that 529,000 of those available between the ages of 18 and 35 were unmarried or widowers without children, and 233,000 were married or widowers with children. In addition, there were about 768,000 between the ages 35 and 60. In connexion with the foregoing figures it should be noted that since the Census of 1921 the total male population of Australia has increased from 2,762,870 to 3,363,546 at the 30th June, 1933 (preliminary Census count)

(iii) *Allotment of Units.* The organization is territorial, and the divisions are based upon infantry units. There are 46 battalions, forming 14 brigades. The areas have approximately equal numbers of males of citizen soldier age, and each furnishes a battalion of infantry, and a proportion of other troops.

ALLOTMENTS OF UNITS TO AREAS, 31st MARCH, 1933.

State.	Military District.	Number of Infantry Brigade Areas.	Battalion Areas.										
			Number of Battalion Areas. (a)	Providing the undermentioned Units—									Anti-aircraft Battery.
				Infantry Battalions.	Light Horse Regiments.	Field Artillery Batteries.	Medium Artillery.		Heavy Artillery.		Artillery Survey.		
							Brigade Head-quarters.	Batteries.	Brigade Head-quarters.	Batteries.			
New South Wales ..	2nd	5	18	16	6	18	1	3	1	4	1	1	
Victoria ..	3rd	5	18	16	5	17	1	3	1	2	1	..	
Queensland ..	1st	2	8	6	3	6	..	..	..	..	..	..	
South Australia ..	4th	1	4	3	3	4	..	..	..	1	..	..	
Western Australia ..	5th	1	3	3	1	3	..	..	..	1	..	..	
Tasmania ..	6th	..	2	2	1	2	..	..	..	1	..	..	
Total ..	..	14	53	46	19	50	2	6	2	12	2	1	

State.	Military District.	Battalion Areas.													
		Providing the undermentioned Units—											A. V. C. Sections.		
		Engineers.		Signals.		Tank Corps.	A. A. S. C.				A. A. M. C.				
		Field.	For-tress.	Sections.	Troops.	Tank Section.	Head-quarters Supply Companies.	Head-quarters Horse Transport Companies.	Supply Sections.	Horse Transport Sections.	Field Ambulance.	Field Hygiene Sections.		A. A. O. C. Companies.	
New South Wales	2nd	5	3										2		23
Victoria ..	3rd	5	3	1	22	5	..	3	3	7	7	7	3	4	4
Queensland ..	1st	2	1	..	6	1	..	1	1	3	3	3	1	1	1
South Australia ..	4th	1	1	..	3	1	..	..	..	1	1	1	1	1	1
Western Australia ..	5th	1	..	..	4	..	..	..	..	1	1	1	1	..	..
Tasmania ..	6th	1	..	..	4	..	..	..	..	1	1	1	1	..	..
Total ..	..	15	8	6	62	12	1	7	7	21	21	21	10	10	10

(a) Two University battalions are not allotted to any specific battalion area.

(iv) *Strength of Military Forces. (a) Districts.* There was little alteration in the numbers serving in the Australian military forces from the institution of the Commonwealth to the year of the introduction of the compulsory training system. From 1913 to 1918, however, the annual increase was considerable. As a result of the International Conference which met at Washington on the 11th November, 1921, it was decided by the Australian Government in 1922 that the universal training law was to be continued, but its operation was to be restricted to the more populous centres and to certain quotas only. From 1st July, 1922, to 30th June, 1925, training in the Senior Cadets was limited to two quotas instead of four, and in the Citizen Forces to two quotas instead



of seven. On 1st July, 1925, Senior Cadet training was reduced to one quota only while Citizen Force training was increased to three quotas. These conditions remained in force until 1st November, 1929, when the constitution of the forces on a voluntary basis was adopted. During the period last mentioned, Senior Cadet training commenced on 1st July of the year in which Senior Cadets reached the age of 17 years, and on 1st July of the following year they were allotted to the Citizen Forces, in which training continued until the 30th June of the year in which they attained the age of 21 years. Notwithstanding the reduction in training, all males residing within 5 miles of a training centre were required to register during the months of January or February of the year in which they reached the age of 14 years. Junior Cadet training of boys of the ages of 12 and 13 years which was in abeyance during the years 1922-23 and 1923-24, was also supervised by the Defence Department during the period 1st July, 1925, to 31st October, 1929.

Under the voluntary enlistment system now in force men from 18 to 40 years of age may be enlisted. The first period of enlistment is for three years, and on its completion, the member concerned may be re-engaged for successive periods of one year until he reaches the age for retirement (48 years). The normal period of training is 16 days per annum (including 8 days in camp of continuous training).

The Senior Cadet Corps, in which enrolment is voluntary, is organized on the following basis:—(a) Detachments affiliated with Militia Units:—Light Horse, Nil; Infantry, Signals and A.S.C., 25 per cent. of the establishment of the Militia Unit; Other Arms, 20 per cent. of the establishment of the Militia Unit; and (b) Detachments consisting of pupils attending approved educational establishments. The ages for enrolment in the regimental detachments are 16 and 17 years, and in the school detachments over 14 years.

#### TRAINING STRENGTH OF MILITARY FORCES.

(a) District.	1901. (b) 1/3/01.	1913. 30/6/13.	1922. 31/12/22.	1929. 1/2/29.	1931. 31/3/31.	1932. 31/3/32.	1933. 31/3/33.
Army Head-Qrs. (Melbourne) ..	..	(c) 277	(c) 499	(c) 197	78	73	(d) 69
1st (Q'ld.) ..	4,310	4,625	4,319	5,610	3,892	3,369	3,289
2nd (N.S.W.) ..	9,772	12,105	14,561	18,825	11,524	10,819	10,122
3rd (Vict.) ..	7,011	10,840	11,117	15,110	10,339	10,141	9,262
4th (S. Aus.) ..	2,956	3,228	3,452	4,234	2,450	2,477	2,290
5th (W. Aus.) ..	2,283	1,685	2,018	2,600	1,820	1,715	1,656
6th (Tas.) ..	2,554	1,777	1,190	1,355	1,179	1,227	1,275
Total ..	28,886	34,537	37,156	47,931	31,282	29,821	27,963

(a) Approximately coterminous with boundaries of States. (b) Date of taking over the military forces from States by Commonwealth. (c) Including cadets at Royal Military College of Australia and Staff Corps Officers abroad, unallotted, or training with other Commonwealth Departments. (d) Including cadets at Royal Military College of Australia.

(b) *Various Arms.* The numbers of the different arms of the service on the 31st March, 1933, were as follow:—

#### ARMS OF THE AUSTRALIAN MILITARY FORCES, ACTIVE LIST, 31st MARCH, 1933.(a)

Head-quarters Staffs ..	..	59	Fortress Engineers ..	..	270
Staff Corps ..	..	237	Signals ..	..	1,163
Corps of Staff Cadets ..	..	30	Infantry ..	..	11,757
Instructional Corps ..	..	481	Tank Corps ..	..	45
Light Horse ..	..	4,002	Army Service Corps ..	..	1,517
Royal Australian Artillery ..	..	410	Army Medical Corps ..	..	1,092
Field Artillery ..	..	3,727	Army Ordnance Corps (b) ..	..	263
Garrison Artillery ..	..	1,491	Army Veterinary Corps ..	..	111
Royal Australian Engineers ..	..	130	Provost Staff ..	..	10
Survey Corps ..	..	15			
Field Engineers ..	..	1,153	Total ..	..	27,963

(a) Excluding civilian staff.

(b) Includes Ordnance Officers and Artificers.

(c) *Classification of Land Forces.* The following table shows the strength of the land forces in each State, classified according to nature of service, on the 31st March, 1933.

**DISTRIBUTION OF LAND FORCES,(a) ACTIVE AND RESERVE LISTS,  
31st MARCH, 1933.**

Branch of Service.	Army Head-quarters.	1st Military District. (Qld.)	2nd Military District. (N.S.W.)	3rd Military District. (Vic.)	4th Military District. (S. Aus.)	5th Military District. (W. Aus.)	6th Military District. (Tas.)	Total.
Permanent Forces ..	(b) 62	136	599	476	84	120	63	1,540
Militia Forces ..	7	3,153	9,523	8,786	2,206	1,536	1,212	26,423
Engineer and Railway Staff Corps ..	2	9	6	12	11	9	5	54
Unattached List of Officers ..	5	65	135	111	13	22	9	360
Reserve of Officers ..	..	762	2,029	1,963	517	445	206	5,922
Chaplains ..	3	39	78	83	25	25	14	267
<b>Total ..</b>	<b>79</b>	<b>4,164</b>	<b>12,370</b>	<b>11,431</b>	<b>2,856</b>	<b>2,157</b>	<b>1,509</b>	<b>34,566</b>

(a) Excluding civilian staff.

(b) Including cadets at Royal Military College of Australia.

(d) *Militia Forces and Senior Cadets, by Formations.* The following table shows the strength of Militia Forces and Senior Cadets, by formations, at the 31st March, 1933 :—

**STRENGTH OF MILITIA FORCES AND SENIOR CADETS, BY FORMATIONS,  
31st MARCH, 1933.**

State.	Military Formation.	Militia Forces.	Senior Cadets.	
			Regimental Detachments.	Educational Establishments.
Victoria ..	Army Head-quarters ..	7	..	..
Queensland ..	Field Troops, 1st Military District	3,008	375	374
Queensland ..	1st District Base ..	145	17	..
New South Wales	1st Cavalry Division ..	1,916	42	82
New South Wales	1st Division ..	2,905	403	348
New South Wales	2nd Division ..	3,777	451	542
New South Wales	2nd District Base ..	925	98	..
Victoria ..	2nd Cavalry Division ..	1,627	94	..
Victoria ..	3rd Division ..	3,709	548	567
Victoria ..	4th Division ..	2,719	266	251
Victoria ..	3rd District Base ..	731	91	..
South Australia ..	Field Troops, 4th Military District	2,130	160	271
South Australia ..	4th District Base ..	76	2	..
Western Australia	Field Troops, 5th Military District	1,343	164	114
Western Australia	5th District Base ..	193	8	..
Tasmania ..	Field Troops, 6th Military District	1,113	125	..
Tasmania ..	6th District Base ..	99	21	..
<b>Total ..</b>		<b>26,423</b>	<b>2,865</b>	<b>2,549</b>

(e) *Numbers who served under Compulsory Provisions.* In earlier issues of the Year Book (see No. 22, pp. 411-413) tables were published showing the numbers registered and training under the compulsory system, distinguishing Citizen Forces and Senior Cadets.

(v) *Administration and Instruction.* The staff provided for the administration and training of the various arms consists of 237 officers (Staff Corps), 47 quartermasters, and 434 warrant and non-commissioned officers (Australian Instructional Corps).

(vi) *Royal Military College.* This College was established in 1911 at Duntroon in the Federal Capital Territory for the purpose of providing trained officers for the permanent forces. In January, 1931, the College was transferred to Victoria Barracks, Sydney. Admission is by open competitive examination. Thirteen Staff Cadets were admitted to the College in February, 1933. Further particulars respecting the College are given on page 915 of Official Year Book No. 15. On the 31st March, 1933, the cadets in training numbered 30.

(vii) *Railways and Defence.* A War Railway Council, consisting of military and railways officers, was instituted in 1911. Its chief duties are to furnish advice and information regarding railway transport for military purposes, and to secure co-operation between the Defence Department and the Railway Departments in regard to concentration and mobilization of troops. To prevent delay in the transport of troops, particularly that caused by the transhipment of baggage and implements of war, the Council has recommended the adoption of a uniform railway gauge on lines linking up the States' capitals. An Engineer and Railway Staff Corps has been instituted, and numbered 54 officers on 31st March, 1933. Fuller details will be found in Official Year Book No. 6, pp. 1070-1.

(viii) *Rifle Clubs.* On the 30th June, 1932, there were 1,172 rifle clubs with a membership of 44,537, and 90 miniature rifle clubs having a membership of 2,770. Members of rifle clubs must fire an annual course of musketry, but do not undergo any systematic drill.

For the purposes of administration the control of rifle club activities reverted from the Secretary for Defence to the Military Board with effect from the 1st March, 1931. Government Grants are made for the construction and maintenance of rifle ranges, etc., and 200 rounds of ammunition are issued free annually to each efficient member.

## § 2. Naval Defence.

1. *State Systems.*—Information regarding naval defence systems prior to 1901 will be found in Official Year Book No. 12, p. 1011, but considerations of space preclude its insertion in the present volume.

2. *The Present System.*—(i) *General.* An outline of the development of Australian naval policy was given in Official Year Book No. 3, pp. 1060-61, and No. 12, p. 1012. Some account of the building of the Australian Fleet, the proposed and modified cost thereof, the compact with the Imperial Government, etc., appears in Official Year Book No. 15, pp. 921 *et seq.* Up to the 30th June, 1932, the expenditure on construction amounted to £13,852,720.

The Washington Conference of 1921 had a marked effect on naval defence schemes, and all warship building and naval base construction were for a time suspended. The Fleet personnel was reduced from 4,843 in 1921 to 3,500 in 1923, and the ships in commission were reduced from 25 to 13. The battle cruiser *Australia* was sunk in accordance with the provisions of the Washington Treaty on 12th April, 1924.

In 1925 the Commonwealth Government, however, decided to build two cruisers of 10,000 tons (the maximum size allowed for new construction under the Washington Naval Treaties), two ocean-going submarines, and a seaplane-carrier. The two cruisers, which were named *Australia* and *Canberra*, were commissioned in 1928. The two submarines, *Otway* and *Oxley*, which were built in England, arrived at Thursday Island on 25th January, 1929. These latter vessels were paid off on the 9th April, 1931, and re-commissioned as H.M. Ships on the following day. They form part of the Empire quota under the London Naval Treaty of 1930. As their maintenance in the highest state of efficiency was difficult in Australia, where they were a small specialized unit, the British Government, after consultation, agreed to take over the submarines as a free

gift and maintain them at its expense. The seaplane-carrier *Albatross*, built at Cockatoo Island Dockyard, Sydney, by the Commonwealth Shipping Board, was first commissioned on 23rd January, 1929.

To ensure closer co-operation with the Royal Navy, arrangements have been concluded with the Admiralty for the periodical exchange of a cruiser, thus giving an opportunity for Australian sailors to gain experience in fleet exercises on a large scale.

The British Admiralty have, in addition, lent to the Royal Australian Navy the sloop *Silvio*, which was refitted in England as a surveying ship, and renamed H.M.A.S. *Moresby*. This vessel has been employed in surveying the Great Barrier Reef.

In 1926 the Commonwealth Government entered into an agreement with the New South Wales Government whereby the latter, in consideration of the payment of a subsidy of £135,000, constructed at Walsh Island, Newcastle, a floating dock capable of lifting 15,000 tons.

(ii) *Naval College*. A naval college was established at Geelong in 1913, and was transferred in 1915 to Captain's Point, Jervis Bay, Federal Capital Territory, and thence in 1930 to the Flinders Naval Depot, Victoria. The course is similar to that carried out in naval colleges in England. In February, 1933, there were 36 cadet midshipmen under training. A boy who reaches the age of thirteen years during the calendar year in which the entrance examination is held is eligible to compete, provided he is the son of natural-born or naturalized British subjects. From amongst those qualified the selection committee chooses the number required. The Commonwealth Government bears the whole expense of uniforms, victualling, travelling, as well as that of the educational course. Altogether 164 officers who have passed through the college are now serving with the Fleet.

(iii) *Training Establishments*. Recruits from 17 to 21 years of age receive their preliminary training at the Naval Depot, Westernport, where, in addition to the new entry school, instruction is given in Gunnery and Torpedo, Signals and Wireless Telegraphy, Engineering, etc.

(iv) *The Naval Station*. A description of the limits of the Australian Naval Station is contained in earlier issues of the Official Year Book (see No. 18, pp. 608-9).

(v) *Vessels*. A list of the vessels of the Royal Australian Navy is given hereunder:—

SHIPS OF THE ROYAL AUSTRALIAN NAVY, MAY, 1933.

Vessel.	Description.	Displacement.	Power.
		Tons.	H.P.
<b>IN COMMISSION—</b>			
<i>Australia</i> ..	Cruiser .. .. .	10,000	80,000
<i>Canberra</i> ..	" .. .. .	10,000	80,000
<i>Cerberus</i> ..	Motor Boat (Flinders Naval Depot)	61	220
<i>Moresby</i> ..	Sloop .. .. .	1,650	2,500
<i>Penguin</i> (late <i>Platypus</i> )	Depot Ship, Sydney .. .. .	3,455	3,500
<i>Tattoo</i> ..	Destroyer .. .. .	905	27,000
<b>IN RESERVE—</b>			
<i>Adelaide</i> ..	Cruiser .. .. .	5,100	25,000
<i>Albatross</i> ..	Seaplane Carrier .. .. .	5,000	12,000
<i>Anzac</i> ..	Flotilla Leader .. .. .	1,310	36,000
<i>Brisbane</i> ..	Cruiser .. .. .	5,120	25,000
<i>Stalwart</i> ..	Destroyer .. .. .	905	27,000
<i>Success</i> ..	" .. .. .	905	27,000
<i>Swordsman</i> ..	" .. .. .	905	27,000
<i>Tasmania</i> ..	" .. .. .	905	27,000
<b>FLEET AUXILIARY—</b>			
<i>Kurumba</i> ..	Fleet Oiler .. .. .	7,930	2,000

(vi) *Naval Forces.* Besides the sea-going forces, there is a R.A.N. Reserve, which is composed of Citizen Naval Forces. The personnel of the sea-going forces, which was originally largely composed of Imperial officers and men, is now 99·6 per cent. Australian. The strength of the naval forces is given hereunder :—

**STRENGTH OF NAVAL FORCES (PERMANENT AND RESERVES),  
15th FEBRUARY, 1933.**

Description of Force.	Numbers Borne.		
	In Training.	Officers.	Men.
Royal Australian Navy (Sea-going) .. .. .	..	339	2,783
Royal Australian Naval Auxiliary Services .. .. .	..	29	140
Cadet Midshipmen undergoing training at R.A.N. College	36	..	..
Royal Australian Naval Reserve (Sea-going) .. .. .	..	46	..
Royal Australian Fleet Reserve .. .. .	..	..	225
Royal Australian Naval Reserve .. .. .	..	240	4,313
Royal Australian Naval Volunteer Reserve .. .. .	..	40	..

### § 3. Air Defence.

1. **General.**—A statement in regard to the preliminary steps taken in connexion with the development of air defence will be found in Official Year Book No. 18, p. 610.

The Royal Australian Air Force is administered by a Board consisting of three Air Force members and a Finance member. To this Force is entrusted the air defence of Australia, and the training of personnel for co-operation with the naval and military forces. The present establishment of the Force includes the following units :—(a) Headquarters Royal Australian Air Force, with representation in London; (b) a Flying Training School; (c) an Aircraft Depot; (d) two service landplane squadrons and (e) one service amphibian flight.

2. **Establishment.**—The present approved establishment of the Permanent Air Force is 102 officers and 788 airmen, and of the Citizen Air Force, 48 officers and 261 airmen. Three aerodromes are under the control of the Air Board; all other aerodromes and air routes have been taken over by the Controller of Civil Aviation.

3. **Aerial Routes.**—Aerodromes and emergency landing grounds have been prepared between the capital cities and on certain parts of the coast for service and civil purposes. At the 31st March, 1933, 185 Government aerodromes and emergency landing grounds had been prepared and 114 licensed public aerodromes were also available for use.

4. **Civil Aviation.**—Details regarding the formation and activities of the Civil Aviation Department will be found in Chapter VI., Section D. Aircraft.

### § 4. Expenditure on Defence.

The following table shows defence expenditure, exclusive of war services, in 1901–2 and for 1927–28 and subsequent years. Details of the expenditure of the Defence Department and the cost of the war, repatriation, and war services are given in Chapter XIV.—Public Finance.

## DEFENCE EXPENDITURE (EXCLUDING WAR SERVICES).—AUSTRALIA.

Item.	1901-2.	1927-28.	1928-29.	1930-31.	1931-32.	1932-33. (a)
	£	£	£	£	£	£
Central Administration ..	5,594	26,700	27,901	24,189	20,599	22,400
Naval .. .. .	178,819	2,597,864	2,395,910	1,747,835	1,444,002	1,466,588
Military .. .. .	732,626	1,494,201	1,465,718	1,194,989	994,685	989,918
Air Services—						
R.A. Air Force .. ..	..	516,639	549,126	392,408	326,330	325,000
Civil Aviation .. ..	..	113,368	97,499	149,812	131,726	150,404
Munitions Supply Branch ..	..	461,638	383,324	248,708	234,070	186,877
Rifle Clubs and Associations ..	41,653	47,699	47,851	33,257	27,897	26,600
Special Appropriations—						
Naval Construction .. ..	..	2,060,586	1,349,819	30,193	2,701	3,000
Survey of Gt. Barrier Reef ..	..	46,217	61,906	..	..	..
Reconditioning Equipment and Purchase of Aircraft Equipment .. .. .	..	7,076	115,315	16,663	1,747	11,675
Development of Civil Aviation	..	13,722	42,113	21,015	1,079	2,600
	958,692	7,385,710	6,536,482	3,859,069	3,184,836	3,185,062

(a) Estimated.

In addition to the above, expenditure on war services, naval and military only, directly under the control of the Defence Department amounted in 1931-32 to £7,524 from Revenue, while the estimated expenditure in 1932-33 was £11,000 from Revenue.

The total cost of war services including interest, sinking fund, war pensions, repatriation, etc., will be found in Chapter XIV., Section B § 5—Cost of War and Repatriation.

### § 5. Munitions Supply.

1. **General.**—A statement dealing with the powers and functions of the Munitions Supply Board is given on p. 612 of Official Year Book No. 18.

2. **Factories.**—(i) *General.* The Explosives Factories at Maribyrnong, Victoria, which manufacture explosives for cartridges and artillery ammunition, aeroplane dopes, nitro-benzine, and special paints, were established in 1911. The staff at 30th June, 1932, numbered 121.

The Acetate of Lime Factory, established at Bulimba, Brisbane, in September, 1918, provides acetate of lime (a raw material used in the manufacture of acetone) and is now being held in reserve. Employees at 30th June, 1932, numbered 2.

The Clothing Factory at Melbourne, Victoria, which had a staff of 227 employees on 30th June, 1932, commenced output in July, 1912, and since that date has been able to supply the whole of the uniform clothing required for the Defence forces and the Postmaster-General's Department. It also supplies clothing required by State Departments and local public bodies.

The Small Arms Factory at Lithgow, New South Wales, which was opened on 1st June, 1912, and delivered the first instalment of Australian arms in May, 1913, had on its pay roll on 30th June, 1932, 278 employees. Rifles and machine guns are being produced, and provision has been made for the manufacture of pistols.

On the 1st January, 1927, the Defence Department entered into possession by purchase of the works of the Colonial Ammunition Company Limited at Footscray, Victoria. As from the 1st July, 1928, this establishment, known as the Small Arms Ammunition Factory, was amalgamated with the Gun Ammunition Factory, and this group is now known as the Ammunition Factories, where in addition to rifle and pistol ammunition, big gun fuses and detonators, and cartridge cases are also produced. Brass and other non-ferrous metals required for munitions manufacture are rolled at this factory. The staff at 30th June, 1932, numbered 362.

At the Ordnance Factory, Maribyrnong, Victoria, established in 1924, provision is made for the production of guns, shells, gun carriages and military vehicles. This group includes a well equipped forge and woodworking and electrical shops. The number of employees at 30th June, 1932, was 319.

(ii) *Investment in Factories.* Up to 30th June, 1932, the amount invested in lands, buildings, machinery and plant, factory fittings and furniture in connexion with the factories now in operation was approximately as follows:—Small Arms Factory, £541,443; Explosives Factories, £562,888; Clothing Factory, £7,858; Acetate of Lime Factory, £89,881; Ammunition Factories, £495,549; and Ordnance Factories, £537,704.

### § 6. Remount Depot.

Information in regard to the establishment of this branch of activity is contained in earlier issues of the Official Year Book (see No. 18, p. 613). When war was declared in 1914 little difficulty was experienced by the Remount Service in coping with the enormous task of obtaining and training horses for the mounted units of the A.I.F. and in providing for the shipment of horses to Egypt and India as required.

### § 7. Australian Contingents.

1. *General.*—In earlier issues of the Year Book an account was given of the composition, etc., of the Australian contingents dispatched for service in the New Zealand and Sudan Campaigns, in South Africa, China, and the Great War of 1914–18 (see Official Year Book No. 12, pp. 1019 *et seq.*).

2. *Australian Troops (Great War).*—Particulars of the enlistments, casualties, honours and decorations won, and engagements of the Australian Imperial Force during the Great War were given in Official Year Book No. 16, pp. 628 *et seq.*

### § 8. War Gratuity.

Reference was made in earlier Year Books (see No. 15, p. 930) to the bonus payable in accordance with the War Gratuity Acts of 1920 as a war service gratuity to soldiers and sailors who served in the Great War. Owing to limitations of space this information cannot be repeated, but it may be noted that the gratuity was paid in Treasury Bonds, maturing not later than 31st May, 1924, and bearing interest at 5½ per cent. In necessitous cases payment was made in cash when desired by the person entitled. The first gratuities were made available about the beginning of June, 1920. The total amount paid to 30th June, 1932, was £27,498,644, and bonds amounting to £16,011 had not been redeemed.

### § 9. Special Defence Legislation.

Information regarding special defence legislation enacted by the Commonwealth Government during the War was given in Official Year Book No. 15, p. 930. It may be pointed out here that the War Precautions Act Repeal Act of 1920 repealed the Act 1914–18, but a limited number of matters dealt with under the original Act is now provided for under the War Precautions Act Repeal Act of 1920–28 or by regulations made thereunder.

### § 10. Repatriation.

1. *General.*—An outline of the activities leading up to the formation of the Commonwealth Department of Repatriation was given in Official Year Book No. 15, p. 931, but limits of space preclude its repetition in the present volume. Some account was given also in the Year Book referred to, and in subsequent issues, of the policy and activities of the Department generally, while detailed information was incorporated in regard to such matters as sustenance rates and pensions to soldiers and dependants. (See Official Year Book 17, pp. 598 to 601.) During the year ended 30th June, 1928, sustenance rates were amended to bring them into line with war pensions rates, and the scale of rates in respect to war pensions was amplified by providing for an allowance to the third or subsequent child at such a rate as will provide, together

with pension in respect of that child, a sum of 15s. per fortnight. Since the date specified sustenance is paid only where subsistence is actually needed, income from all sources being taken into account. Further, consequent upon the Financial Emergency Act, the maximum rate of pension payable to children of incapacitated soldiers is now 12s. per fortnight.

The main activities of the Repatriation Commission at 30th June, 1932, were confined to the grant, review and assessment of war pensions, medical treatment, the renewal and repair of artificial replacements and surgical appliances, the grant and review of living allowances, and the administration of the Soldiers' Children Education Scheme.

2. **War Pensions.**—(i) *Year ended 30th June, 1932.* Pensions expenditure progressively increased from 1923–24, and the number of pensioners grew, year by year, from 1920–21. The effects of the Financial Emergency Act were, however, evidenced in 1931–32 by a decline in total expenditure and in the number of persons receiving benefit. At the close of that year the annual liability was £6,949,540, with 274,111 pensioners. The outstanding figures for the year ended 30th June, 1932, are as follows :—

New claims granted during year	..	..	..	..	5,592
Claims rejected during year	..	..	..	..	776
Pensions reviewed during year	..	..	..	..	57,264
Pensions cancelled or discontinued during year	..	..	..	..	12,378
Pensioners died during year	..	..	..	..	2,456
Number of pensions in force at 30th June, 1932	..	..	..	..	274,111
Annual pension liability on the 30th June, 1932	..	..	..	..	£6,949,540

At the close of the year special rate pension of £8 per fortnight was being paid to—

Blinded soldiers	..	..	..	..	132
Tubercular soldiers	..	..	..	..	1,012
Totally and permanently incapacitated soldiers	..	..	..	..	1,480

An analysis of the total number of new grants (5,592) during the year reveals the following :—

Members (i.e., ex-soldier pensioners)	..	..	..	..	520
Wives of members	..	..	..	..	943
Children	..	..	..	..	3,868
Other dependants	..	..	..	..	261
					5,592

(ii) *Pensions in Force at 30th June, 1932.* The following table shows the class of pensioner the number receiving pensions at the 30th June, 1932 :—

**PENSIONS IN FORCE, AUSTRALIA, AT 30th JUNE, 1932.**

Category.	Number of Pensioners.
Orphan children	5,582
War widows	7,790
Soldiers	75,646
Children	105,871
Wives	57,959
Parents	20,904
Brothers and sisters	217
Others	142
Total	274,111



(iii) *Summary, Years 1921, 1928 to 1932.* The subjoined table shows the numbers of pensions granted, claims rejected, and pensions in force, together with the amount paid in pensions for the year ended 30th June, 1921, and for each of the five years ended 30th June, 1932 :—

PENSIONS.—SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensions Granted.	Claims Rejected.	Pensions in Force.				Amount paid in Pensions.
			Incapacitated Members of the Forces.	Dependants of Incapacitated Members.	Dependants of Deceased Members.	Total.	
1921 ..	25,983	3,388	79,491	93,995	49,051	222,537	£ 7,386,842(a)
1928 ..	13,547	1,826	72,667	155,809	38,194	266,670	7,690,890
1929 ..	12,857	1,044	73,436	163,013	36,182	272,631	7,734,921
1930 ..	13,650	1,257	74,578	170,437	34,270	279,285	7,919,476
1931 ..	11,555	920	75,316	172,389	35,617	283,322	7,996,180
1932 ..	5,592	776	75,646	166,846	31,619	274,111	7,446,188

(a) Includes payments made from Trust Fund, War Pensions Account, on behalf of other countries less recoveries.

3. *Summary of Other Activities.*—The following is a summary of the work of the Department from 8th April, 1918, to 30th June, 1932 :—

(i) *Employment.* Number of applications, 255,173; number of positions filled, 133,157.

(ii) *Vocational Training.* Number of men completed training, 27,696; number in training, nil.

(iii) *Assistance other than Vocational Training and Employment.* Applications received, 828,161; applications approved, 717,802.

(iv) *Soldiers' Children Education Scheme.* From the inauguration of the scheme in February, 1921, up to 30th June, 1932, 15,215 applications for assistance had been received. Of these 13,925 had been approved, of which 7,442 recipients of the benefits had completed their training, 4,423 were undergoing training, 24 applications were pending, and the remainder had been refused or withdrawn. At 30th June, 1932, applications to the number of 32 were pending.

Up to 30th June, 1932, the expenditure was £1,344,865.

(v) *Assistance Granted.* The total expenditure incurred during the period from 8th April, 1918, to 30th June, 1932, was £18,727,445, of which £1,675,987 represented loan and £17,051,458 general expenditure. Of the total the largest amounts were absorbed by medical treatment, with £6 millions, vocational training, with £5 millions, and expenses of providing employment, £2½ millions.

(vi) *Medical Treatment.* At 30th June, 1932, there were 1,446 in-patients and 14,144 out-patients receiving medical treatment. The expenditure to this date was £5,944,974.

4. **Expenditure of Department of Repatriation.**—The expenditure of the Department during the twelve months ended 30th June, 1932, was £8,339,335, and was applied as follows :—

Repatriation benefits—	£
Loans to soldiers .. .. .	50
Grants to soldiers and general expenditure (including maintenance of training schools, medical institutions, etc.) ..	534,718
Assistance to soldiers in necessitous circumstances .. ..	68
Allowances to dependants of soldiers not provided for under the Act .. .. .	973
Medical treatment to Home Service personnel .. ..	140
	535,949
Capital expenditure—	
Office premises and furniture .. .. .	28
Hostels and other Medical Institutions .. .. .	1,621
Loan Fund, Bundoora Mental Hospital, Victoria .. ..	12,706
	14,355
Soldiers' Children Education Scheme .. .. .	108,381
War Pensions .. .. .	7,449,180
Administrative costs—	
Salaries .. .. .	155,263
Contingencies .. .. .	76,207
	231,470
Total .. .. .	8,339,335

The total expenditure for the previous year was £9,006,241.

5. **Settlement of Soldiers on the Land.**—At the Premiers' Conference in Melbourne in 1917, it was agreed that the States should undertake the work of settling on the land returned soldiers and munition and war workers, but that the Commonwealth should finance the States for this purpose.

The original arrangement provided that the Commonwealth should take the responsibility of finding up to £500 per settler as working capital for improvements, implements, seed, etc., an amount which was subsequently increased to £625, together with £375 per settler for resumptions and works incidental to land settlement approved by the Commonwealth. Loans were to be advanced to the settlers by the States at reasonable rates of interest not exceeding  $3\frac{1}{2}$  per cent. in the first year, increasing by  $\frac{1}{2}$  per cent. each subsequent year to the full rate of interest at which the money had been raised, plus working expenses; the difference between these rates and the cost of the money to the Government to be borne equally by the Commonwealth Government and the State Government. This provision respecting interest loss was not ultimately carried out as passed, the Commonwealth Government assuming responsibility for more than one-half of the interest loss, viz. :—a rebate of interest equal to  $2\frac{1}{2}$  per cent. per annum during a period of five years from the date of payment to the State of each instalment of loan money.

In addition to this expected loss of interest other losses have occurred in connexion with soldier settlement, and in 1927 Mr. Justice Pike, of the Land Valuation Court of New South Wales, was commissioned to report, not only on the losses, but on the principles on which financial responsibility should be divided. His report in 1929, to which reference should be made for fuller information, found that in all the negotiations concerning soldier settlement on the land the States insisted on undivided control, and that financial responsibility went along with control except so far as the Commonwealth definitely

promised to give assistance. The undertaking of the Commonwealth to share equally with the States the cost of lower interest rates to soldier settlers was made the basis of a practical compromise, and the report recommended that the total loss should be shared equally between the two parties.

The following table from Mr. Justice Pike's report shows the losses as found by him, the amount contributed at that date by the Commonwealth, and the further amount to be written off by the Commonwealth:—

#### LOSSES ON SOLDIER SETTLEMENT.

State.	Gross losses as found by Mr. Justice Pike.	Commonwealth half share thereof.	Amount already contributed by Commonwealth.	Further amount to be written off by Commonwealth.
	£	£	£	£
New South Wales ..	7,003,950	3,501,975	2,612,215	889,760
Victoria ..	7,721,891	3,860,945	3,331,193	529,752
Queensland ..	1,853,315	926,657	817,272	109,385
South Australia ..	3,565,829	1,782,914	977,927	804,987
Western Australia ..	2,059,368	1,029,684	1,477,688	Nil
Tasmania ..	1,321,169	660,585	546,688	113,897
<b>Total ..</b>	<b>23,525,522</b>	<b>11,762,760</b>	<b>9,762,983</b>	<b>2,447,781</b>

The report refers to a further small loss in certain States consequent upon providing home maintenance areas. The Commonwealth's share of this loss was subsequently fixed at £150,000.

According to the report the chief loss was in interest on capital cost, which amounted to more than half the total loss. Loss of advances came next, due to inflated values of improvements and stock when settlement was taking place. The loss due to administration expenses was defined as the excess costs above ordinary closer settlement costs and this excess was found to be about £3,000,000, or 12½ per cent. of the total loss.

The following table shows the total advances to the States, repayments made to the Commonwealth, remissions of advances made by the Commonwealth and the loans outstanding at the 30th June, 1932. The remissions which have been agreed upon but still await legislative ratification include an amount of £5,000,000 made by the Commonwealth in 1925, and the Commonwealth's share of losses, other than for interest, as recommended by Mr. Justice Pike (including the £150,000 for home maintenance areas).

#### ADVANCES TO STATES FOR SOLDIER SETTLEMENT, AT 30th JUNE, 1932.

State.	Number of Settlers.		Total Advances.	Repay-ments by States.	Remissions by Com-monwealth. (a)	Advances less Repay-ments and Remissions. (a)
	Originally.	Remaining.				
			£	£	£	£
New South Wales ..	9,302	6,649	9,826,203	20,219	2,274,722	7,531,262
Victoria ..	11,140	9,249	11,968,176	174,101	2,160,960	9,633,115
Queensland ..	6,031	3,617	2,717,697	17,114	612,233	2,088,350
South Australia ..	4,082	2,754	2,857,780	24,775	1,371,988	1,461,017
Western Australia ..	5,030	3,545	5,463,782	32,580	796,000	4,635,202
Tasmania ..	1,976	777	2,168,303	38,740	381,880	1,747,683
<b>Total ..</b>	<b>37,561</b>	<b>26,591</b>	<b>35,001,941</b>	<b>307,529</b>	<b>7,597,783</b>	<b>27,096,629</b>

(a) The remissions shown have been agreed upon but still await legislative ratification.

The figures in the above table relating to the number of settlers, are taken from Mr. Justice Pike's report.

6. *Conspectus of State Laws affecting Settlement of Returned Soldiers on the Land.*—In Official Year Book No. 13, pp. 1018 *et seq.*, will be found a table giving particulars of the laws of the various States relating to returned soldiers' land settlement.

Later modifications have been made with a view to simplifying procedure and liberalizing the conditions under which holdings may be acquired.

### § 11. War Service Homes.

The operations of the War Service Homes Commission at 31st March, 1933, may be briefly set out as follows:—Total applications approved, 41,787; expenditure on provision of homes, purchase of land for future use, etc., £28,752,117; 21,220 houses had been completed; and 34 homes had been enlarged.

In addition, the Commission had purchased on behalf of eligible applicants 12,925 already-existing properties, and had taken over mortgages existing on 2,582 dwelling-houses. Dual assistance had been approved in respect of 52 applications, making the total number of homes provided under the War Service Homes Act, 36,813. Homes are insured under a comprehensive policy, the total insurances in force, including cover notes, amounting to £19,255,440. The total receipts of the Commission to 31st March, 1933, were £18,901,951, of which £6,592,720 was paid to the National Debt Sinking Fund.

The percentage of arrears of instalments due was 4.5. The total instalments due amounted to £13,871,304 and of arrears to £654,037. The arrears figures do not include amounts due in respect of homes which have been provided by the State Bank of South Australia.

Pursuant to legislation passed by the Commonwealth Government and the State Parliament of Victoria, the control of homes under the State Savings Bank of Victoria was transferred to the Commission as at 9th December, 1932, and the figures quoted cover the activities in respect of homes so transferred. The homes provided by the State Bank of South Australia in accordance with the existing agreement are included in the statement.

## CHAPTER XIII.

## THE TERRITORIES OF THE COMMONWEALTH.

## GENERAL.

The Territories under the control of the Commonwealth are:—The Northern Territory; the Federal Capital Territory; Papua (formerly British New Guinea); Norfolk Island; the Territory of New Guinea (by Mandate of the League of Nations); Nauru (under joint Mandate of the Commonwealth, Great Britain and New Zealand).

Information regarding forms of government, etc., will be found in Official Year Book No. 22, pages 587–588.

## THE NORTHERN TERRITORY.

## § 1. Area and Population.

1. **Introductory.**—Upon the extension of New South Wales westward to the 129th meridian in 1827, the Northern Territory was incorporated in that colony but in 1863 was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1st January, 1911. The total area is 523,620 square miles, or 335,116,800 acres.

2. **Population.**—(i) *Europeans.* At the census taken in 1881 there were only 670 Europeans in the Territory. The total increased slowly, reaching its maximum in 1919 with 3,767 persons. At the census of 1921 the white population had decreased to 2,459. In 1931 it was about 2,800.

(ii) *Asiatics.* With the exception of a few Japanese, Filipinos and others, the Asiatics in the Northern Territory consist mainly of Chinese. These numbered at one time over 4,000, but have gradually dwindled. In 1931 the total number of coloured persons, exclusive of aboriginals, was about 800. (See Year Book No. 22, p. 589).

(iii) *Total Population.* The highest recorded population of all races, except aboriginals, was 7,533 in 1888. The estimated population for the last five years is given in the following table:—

## NORTHERN TERRITORY.—POPULATION (EXCLUSIVE OF ABORIGINALS).

Year.	Males.	Females.	Total.
1928 .. ..	2,739	1,243	3,982
1929 .. ..	2,945	1,525	4,470
1930 .. ..	2,993	1,623	4,616
1931 .. ..	2,803	1,655	4,458
1932 .. ..	2,642	1,718	4,360

The Census population (4th April, 1921) was 2,821 males, 1,046 females, total 3,867.

(iv) *Movement of Population.* The following is a summary of movement of population in 1932 (excluding overland migration):—

## NORTHERN TERRITORY.—MOVEMENT OF POPULATION, 1932.

Immigration ..	479	Emigration ..	583	Excess of immigration over emigration ..	—104
Births .. ..	79	Deaths .. ..	73		
Increase .. ..	558	Decrease .. ..	656	Net Increase ..	—98

The immigration and emigration figures for the Territory during the five years ending 1932 are shown in the following table:—

NORTHERN TERRITORY.—IMMIGRATION AND EMIGRATION.

Year.				Immigration.	Emigration.
1928	..	..	..	710	1,101
1929	..	..	..	1,079	579
1930	..	..	..	807	655
1931	..	..	..	573	733
1932	..	..	..	479	583.

(v) *The Aborigines.* A special article contributed by Dr. W. Ramsay-Smith on the subject of the Australian aborigines, was incorporated in Year Book No. 3 (pp. 158-176). The chapter "Population," in Year Book No. 17, contained information regarding the number and distribution of aborigines and the measures taken by the States (in the case of the Northern Territory, by the Commonwealth) to protect them and to conserve their interests. Large numbers of the aborigines in the Territory are still outside the influence of Europeans. The total number of full-blood and half-caste aborigines at 30th June, 1932, was estimated at 19,500, of whom 2,788 were in regular employment. There are fourteen aboriginal reserves, comprising an area of 39,249 square miles. (See also Chapter Population, hereinafter.)

## § 2. Legislation and Administration.

On 1st January, 1911, the Territory was transferred by South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, p. 940. By the *Northern Australia Act* 1926, the Territory was divided into two parts, Central Australia and North Australia, separated by the 20th parallel of south latitude, each administered by a Government Resident. In addition, Advisory Councils and a Development Commission were provided for. The Act of 1926 was superseded by the *Northern Territory Administration Act* 1931. By this Act the provision made for Advisory Councils was cancelled, and the Development Commission abolished. The administration of the Territory was placed in the hands of an Administrator, residing in Darwin, assisted by a Deputy Administrator, residing in Stuart (Alice Springs). The Territory elects a member to the Commonwealth House of Representatives, who may take part in the debates, but may not vote.

## § 3. Physiography.

1. *Tropical Nature of the Country.*—The Territory is within the torrid zone, with the exception of a strip  $2\frac{1}{2}$  degrees wide, which lies south of the Tropic of Capricorn.

2. *Contour and Physical Characteristics.*—The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl, and ironstone form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries.

The principal features of the coast line are enumerated in Year Book No. 1, p. 66; the rivers in Year Book No. 2, p. 76; the mountains in Year Book No. 3, p. 67; the lakes in Year Book No. 4, p. 77; the islands in Year Book No. 5, pp. 71, 72, and the mineral springs in Year Book No. 6, p. 65.

Inland, the country generally is destitute of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply of the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

### § 4. Climate, Fauna and Flora.

1. **The Seasons.**—There are two main climatic divisions—the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Fuller particulars will be found in Year Book No. 6, p. 1116.

2. **Fauna.**—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of freshwater fish and littoral mollusca. Butterflies and beetles are strongly represented. The white ant is a pest, anthills in the Territory sometimes attaining great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Native fauna are in some cases protected. Buffalo formerly existed in large herds, but, as pointed out later, their number has been greatly reduced by indiscriminate shooting.

3. **Flora.**—The vegetation is North Australian in type, but a number of the forms belongs to the Malayan and Oceanic regions. The timber trees are not of great commercial value, but in the coastal regions tropical vegetation grows luxuriantly to the water's edge. On the wide expanses of plain country in the interior there is little vegetation, the principal orders represented being:—*Euphorbiaceæ*, *Compositæ*, *Convolvulaceæ*, *Rubiaceæ*, *Goodenoviaceæ*, *Leguminosæ*, *Urticææ*.

Fuller particulars regarding fauna and flora are given in Year Book No. 6, pp. 1116-7.

### § 5. Production.

1. **Holdings.**—There were in 1932, 891 holdings in the Northern Territory, covering an area of 228,637 square miles. Of these, 460 were held on pastoral lease, 140 on agricultural lease, the remainder being held on leases for various other purposes.

2. **Agriculture.**—Up to the present agriculture has made little progress in the Territory, although it has been proved that rice, tobacco, coconuts, mangoes, bananas, cotton, various fodder plants, and peanuts can be successfully grown. Expense of harvesting is, at present, an obstacle to the economic production of rice, and until labour-saving machinery is procured it cannot be produced with profit. There is a large stretch of first-class coconut land on the coast, but hitherto planting has not been attempted on a commercial scale. Peanuts have become the principal crop, and the harvest in 1930-31 amounted to 410 tons, from about 1,400 acres. A Primary Producers Board has been instituted to give advice and help in primary production. In 1930, 44 unemployed were settled on the land, with the object of engaging in peanut culture. Of these only eleven remained at the end of the year 1931-32, owing partly to the land selected being unsuitable, and partly to failure of the crop through insufficient rain.

3. **Pastoral Industry.**—The pastoral possibilities of certain parts of the Northern Territory were recognized at an early date, and in 1866 stock was brought into the Macdonnell Range country from South Australia. Six years later cattle were moved from Queensland to the northern parts of the Territory, and in 1879 Mr. Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons sheep-raising did not succeed. The cattle industry progressed and became the mainstay of the Territory, a great impetus being given to it in 1917 by the opening of extensive meat works at Darwin. Unfortunately the works closed down in 1920, and are still standing idle. The number of cattle exported by land from the Northern Territory during the year 1931-32 was about 44,000, and the number imported about 7,300. The cattle industry has been retarded by the ravages of ticks and by the difficulty of travelling stock through waterless country. These difficulties are, however, gradually being overcome, the former by "dipping," and the latter by adding to the number of wells on the various stock-routes and the creation of stock reserves. Buffaloes thrive in the coastal districts, but their number has been greatly reduced by indiscriminate shooting to obtain the hides.

The estimated number of live stock in the Territory in the last five years is given in the table hereunder :—

## NORTHERN TERRITORY.—LIVE STOCK.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Goats.	Camels.	Donkeys.	Mules.
1927 ..	40,108	835,390	9,589	292	20,103	402	1,137	499
1928 ..	37,452	768,751	7,635	407	16,499	603	1,112	496
1929 ..	33,703	711,607	11,803	359	9,247	707	779	492
1930 ..	33,363	720,476	15,838	327	16,757	562	831	523
1931 ..	33,442	749,745	18,867	665	19,011	501	909	668

4. **Mining.**—(i) *General.* Alluvial gold-digging in the Northern Territory commenced in 1869, and up to the end of 1880 gold to the value of £79,022 had been produced. In 1881 the gold production reached its maximum, the value for that year being £111,945. During the following years it fluctuated considerably, but as long as the alluvial deposits lasted the output was satisfactory. In the transition period from alluvial to reef mining the industry declined considerably. The production of metals other than gold has suffered on account of the vagaries of prices, and high cost of transport and of white labour.

(ii) *Mineral Production.* The following table shows the value of the total mineral production for the last five years :—

## NORTHERN TERRITORY.—MINERAL PRODUCTION.

Year.	Gold.	Tin Ore.	Silver- Lead Ore.	Copper Ore.	Mica.	Wolfram.	Tantalite.	Total Value all Minerals.
	£	£	£	£	£	£	£	£
1927-28 ..	431	10,828	22	..	3,280	..	65	14,626
1928-29 ..	553	6,958	79	..	10,548	..	207	18,345
1929-30 ..	57	3,345	1,684	589	6,099	3,867	1,013	16,654
1930-31 ..	2,445	2,331	160	25	5,531	384	450	11,326
1931-32 ..	3,465	2,322	..	137	5,547	1,369	240	13,080

5. **Pearl, Bêche-De-Mer, and Other Fisheries.**—In 1884 mother-of-pearl shell was discovered in the harbour of Port Darwin. Difficulty in working, principally through heavy tides and muddy water, retarded the development of the industry for many years. During the first half of the financial year 1930-31, 32 boats were operating, employing 248 indentured workmen. By Ordinance, gazetted in March, 1931, a limit was set to the output of shell, and the pearling fleet was, consequently, reduced to eighteen boats with 164 employees. The production of shell for the year 1931-32 was 225 tons valued at approximately £45,000 as compared with 673 tons valued at £81,520 in the preceding year. The territorial waters teem with fish, but the hope of establishing a salt and dried fish trade has not materialized. In the procuring of bêche-de-mer, three boats were engaged.

## § 6. Land Tenure.

A description of the system of land tenure in force in the Territory will be found in Chapter V.—Land Tenure and Settlement, Official Year Book No. 22.



### § 7. Commerce and Shipping.

1. **Trade.**—No record is kept of the trade between the Commonwealth States and Territories. The value of the direct oversea trade for 1901 and for each of the years 1927-28 to 1931-32 is given hereunder:—

#### NORTHERN TERRITORY.—VALUE OF DIRECT OVERSEA TRADE.

Items.	1901.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£	£
Imports .. ..	37,539	30,387	32,069	37,902	19,251	9,884
Exports .. ..	29,191	29,265	53,720	58,471	14,956	20,624
Total .. ..	66,730	59,652	85,789	96,373	34,207	30,508

The sharp decline in the export figures for 1930-31 was due mainly to the cessation of the trade in live cattle with the Philippines, which amounted in 1929-30 to £22,209, and a fall in the value of pearl-shell exported to £10,685 as compared with £27,837 in the previous year.

2. **Shipping.**—The Territory is dependent for its shipping facilities chiefly on the services of vessels trading between Sydney and Singapore. Other vessels make occasional visits, while a sixty-days' service between Fremantle and Darwin is carried out by the "Koolinda," belonging to the West Australian State Shipping Service.

#### NORTHERN TERRITORY.—SHIPPING.

Period.	Arrivals.		Departures.	
	No. of Vessels.	Tonnage.	No. of Vessels.	Tonnage.
1927-28 .. ..	54	125,533	45	121,451
1928-29 .. ..	61	129,997	48	129,218
1929-30 .. ..	52	126,004	47	125,925
1930-31 .. ..	39	111,144	39	111,453
1931-32 .. ..	39	95,560	39	96,632

The foregoing figures are exclusive of particulars of coastwise shipping. During 1931-32, twelve vessels of 243 tons net were entered at Darwin as coastwise.

### § 8. Internal Communication.

1. **Railways.**—Under the agreement ratified by the Act, the Commonwealth is to construct the Northern Territory portion of the transcontinental railway line (connecting Adelaide and Darwin, via Port Augusta).

The Northern line from Adelaide terminated at Oodnadatta, about 100 miles south of the southern boundary of the Territory, but has been extended to Alice Springs, an addition of 292 miles. The line from Darwin to Katherine River, about 200 miles, has been extended as far as Birdum, 316 miles from Darwin. The completion of the remainder of the gap would permit of the development of the broad belts of pastoral and mineral country towards the centre of Australia. The Commonwealth Government acquired on 1st January, 1911, the property in the line from Port Augusta to Oodnadatta (478 miles), and on 1st January, 1926, the control thereof was transferred to the Commonwealth Railways Commissioner. (See under Federal Railways.)

2. **Posts.**—Postal communication is maintained by vessels belonging to Burns, Philp and Co., which carry on a monthly service between the Territory and the Eastern States. In addition, the vessels belonging to the State Steamship Service of Western Australia give a service once every 60 days between Fremantle and Darwin. Inland, the northern part of the Territory receives its mail via Darwin, while the southern districts are served via Adelaide.

3. **Telegraphs.**—The transcontinental telegraph line, covering a length of 2,230 miles, was completed on the 22nd August, 1872, at a cost of nearly half-a-million sterling. The line runs in a northerly direction from Adelaide to Darwin, whence telegraphic communication is provided with Asia and Europe, via Banjoewangie (Java), Singapore, and Madras. Between Darwin and Banjoewangie the submarine cable is duplicated.

High-power wireless stations have been constructed by the Federal Government at Wave Hill in the Territory, and at Camooweal, just over the eastern boundary, in Queensland.

### § 9. Finance.

1. **Revenue and Expenditure, 1931-32.**—In the Commonwealth finance statements separate accounts are given for Northern Territory administration. Receipts and expenditure for 1931-32 are given below :—

#### REVENUE AND EXPENDITURE.—NORTHERN TERRITORY, 1931-32.

REVENUE.	£	EXPENDITURE.	£
Customs and Excise ..	7,200	Administrative Staff ..	71,903
Postal, Telegraph, and Telephone .. ..	9,097	Northern Territory Railways	157,670
Darwin-Katherine River Railway .. ..	23,548	Interest and Sinking Fund, Northern Territory Loans ..	423,031
Central Australia Railway ..	85,456	New Works, Artesian Bores, Roads, etc. .. ..	24,979
Territorial .. ..	24,745	Miscellaneous .. ..	89,790
Land and Income Tax .. ..	5,505		
Lighthouses and Light Dues ..	548		
Sales Tax .. ..	1,172		
Miscellaneous .. ..	12,380		
Deficiency on year's transactions .. ..	597,722		
<b>Total .. ..</b>	<b>767,373</b>	<b>Total .. ..</b>	<b>767,373</b>

2. **Northern Territory Debt.**—The items making up the total debt of the Territory as at 30th June, 1932, are as follow :—

Debt at date of transfer to the Commonwealth,	£	£	
1st January, 1911 .. ..	..	3,931,086	
Redeemed under Commonwealth Loan Acts (a) 3,108,312	}	3,569,062	
Redeemed from Consolidated Revenue ..			460,625
Redeemed from Sinking Fund .. ..			125
<b>Balance, 30th June, 1932 .. ..</b>	<b>..</b>	<b>362,024</b>	

(a) Includes £100,000 of debt converted to Commonwealth securities.

In addition, the balance of the Port Augusta—Oodnadatta Railway Loans taken over from South Australia amounted at 30th June, 1932, to £921,046, making a total of £1,283,070.

### THE FEDERAL CAPITAL TERRITORY.

1. **Introductory.**—In Year Books Nos. 4 and 5, information was given in Section XXXI, in regard to the events leading to the selection of the Federal Capital Territory and the necessary legislation and the progress of operations in connexion with the establishment of the capital city. The physiography of the Territory was dealt with *in extenso*, and topographical and contour maps accompanied the letterpress, as well as reproductions of the premiated designs for the laying out of the city. Considerations of space, however, preclude the repetition of this information. On the 12th March, 1913, the official ceremony to mark the initiation of operations in connexion with the establishment of the Seat of Government was carried out. At this ceremony the selection of "Canberra" as the name of the capital city was announced. (A special article contributed by Dr. F. Watson, entitled "Canberra Past and Present", appeared on page 454 of Year Book No. 24.)

2. **Transfer of Parliament.**—On 9th May, 1927, Parliament House at Canberra was officially opened by His Royal Highness Albert, Duke of York, the occasion being the 26th anniversary of the opening of the first Parliament of the Commonwealth at Melbourne by His Royal Highness George, Duke of Cornwall and York—now His Majesty the King—on the 9th May, 1901. (For particulars of the opening ceremony see Year Book No. 21, page 604.)

3. **Administration.**—In Year Book No. 18, a summary was given of the development of the administration prior to the taking over of the control of the Territory by the Federal Capital Commission, and in Year Book No. 22, a summary was given of the administrative activities of the Federal Capital Commission.

The administration of the Territory by the Federal Capital Commission was continued until the 30th April, 1930, when the Seat of Government (Administration) Act 1924–1929 was repealed, and the powers and functions of the Commission reverted to the Government. The new Administration provided for the general control of the Territory by the Minister for Home Affairs, with the assistance of the Department of Public Health in health matters, the Department of Works in the operation of the engineering services and in the construction of works, and the Attorney-General's Department in the administration of the Courts, Police and Probate, and the Registration of Titles.

An Advisory Council to advise the Minister on matters of local concern was established on the 1st May, 1930, by Ordinance under the Act, and a Civic Administrator was appointed under the Ordinance as Chairman of the Advisory Council and to carry on the general administration of the Territory under the Minister and subject to the specific services being undertaken by the other Commonwealth Departments mentioned.

The Advisory Council consisted of the Secretary, Department of Home Affairs; the Director-General of Health; the Secretary, Department of Works; the Civic Administrator; and three residents elected for two years under a system of adult franchise.

On the 12th April, 1932, the Departments of Home Affairs and Works were abolished and the Department of the Interior was established in lieu thereof. The office of Civic Administrator was abolished, and the constitution of the Advisory Council was altered to provide that the nominated members of the Council should consist of the Director-General of Health, and three officers of the Department of the Interior, namely, the Assistant Secretary (Works and Services); the Assistant Secretary (Property and Survey); and the Assistant Secretary (Civic Representative).

Under the new administration, the general control of the Territory is exercised by the Minister for the Interior, but the specific services undertaken by the Department of Health and the Attorney-General's Department are being continued by those Departments.

4. **Progress of Work.**—The general progress of the work of construction up to the time the Territory was taken over by the Commission was outlined in Year Book No. 18. Later progress made under the Commission is described in Year Book No. 22.

Structures completed after the commencement of the Departmental form of administration comprised the Australian Institute of Anatomy with laboratories and accommodation for a museum of Australian fauna; laboratories of the divisions of

Economic Entomology and Plant Industry of the Institute of Scientific and Industrial Research; a public swimming pool equipped with a modern filtration chlorination plant; a small number of additional residential buildings; and improvements and extensions of the various engineering services. New building works undertaken during the year were restricted owing to the limited funds available, the main items being the erection of twelve (12) semi-detached houses, and seven (7) cottages, additions to Government Printing Office, erection of Golf and Tennis Pavilions.

The following engineering works have been completed or are well advanced:—Reinforced concrete service reservoir on Black Mountain, with a capacity of 1½ million gallons, and outlet main therefrom; supply main to Black Mountain; new pump at Cotter River with a capacity of 200,000 gallons per hour; bituminous surfacing of bus and main traffic routes; new road to metal quarry; improvements in cemetery area.

Extensions in connexion with parks, plantations and gardens in accordance with the garden city ideal were carried out during the year. The laying out of a National Rose Garden has been undertaken and planting will be proceeded with this season.

5. **Forestry.**—A considerable amount of reforestation work has been undertaken, and plantations have been established at Uriarra, Mount Stromlo, Pierce's Creek and Kowen. Experimental plots have also been established at Coree and Pierce's Creek, and silvicultural work is being carried out at Black Mountain.

The total area of plantations to 30th June, 1933, was 6,778 acres. Forestry operations were begun on Mount Stromlo in 1915, and up to 1925 approximately 700 acres had been planted with pine and other trees. The plantings up to this time were chiefly on æsthetic lines, but since the initiation of the wider programme, arrangements have been made for pruning and thinning.

The Forestry Section of the Federal Capital Commission was established in 1926 and a comprehensive review was undertaken of the Territory's potentialities in regard to forest development. A system of forestry management was instituted in the existing forest areas, and a considerable amount of survey and assessment work has been completed.

In the initial stages *pinus insignis* was most extensively planted, but, as a result of experimental work, plots of better quality pines on a longer rotation, such as *pinus ponderosa*, *Jeffreyi* and *laricio* were planted during recent years. The area of all varieties of pines planted from 1925–1926 to 1932–1933 was 6,078 acres.

6. **Lands.**—(i) *In the Federal Capital Territory.* Reference has been made in previous issues of the Official Year Book to the general conditions of land tenure in the Territory for the Seat of Government and to the area of alienated and leased land.

As considerable portions of the Territory lands are not required in connexion with the establishment of the city, large areas have been leased under special improvement conditions in regard to the extermination of noxious weeds and the destruction of rabbits and other noxious animals. The lands are classified into three grades of agriculture and three grades of grazing land. About 292,480 acres, comprising 435 leases are at present held under lease for periods varying from quarterly tenure to 25 years.

Regarding auction sales of city leaseholds see Year Book No. 22, p. 599.

Eight leases for church purposes have been granted under the *Church Lands Leases Ordinance 1924–1932*, which require the lessees to submit a definite building programme within a specified period, and a further eight leases have been granted for church and scholastic purposes under the *Leases (Special Purposes) Ordinance 1925–1932*.

The total number of leases granted under the *City Area Leases Ordinance*, not including surrendered leases, at the end of the financial year 1932–33, was 294, representing a capital value of £161,468. During the year one new lease was granted. The number of business and residential blocks surrendered to or determined by the Commonwealth to the end of the year was 212.

Under the terms of the *City Area Leases Ordinance 1924–1929*, each block is leased for a period of 99 years at a rental of £5 per centum per annum of the unimproved capital value as assessed by the Commonwealth or bid at auction.

(ii) *Land at Jervis Bay.* The Commonwealth has acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Federal Capital. The Royal Australian Naval College was established in this area on a site known as Captain's Point, but was removed in 1930 to Flinders Naval Base. Nearly all of the remaining lands have been leased.

A scheme for the use by tourists of the residences and other buildings at Jervis Bay has been put into operation, and it has proved a considerable attraction, affording a seaside resort for the Territory as well as for visitors from other places.

7. *Railways.*—Canberra is connected with the railway system of New South Wales by a line  $4\frac{1}{2}$  miles long to Queanbeyan. This line was opened for goods traffic on the 25th May, 1914, and for passenger traffic on the 15th October, 1923, and is being worked by the New South Wales Railways Commissioners for, and on behalf of, the Commonwealth.

The railway terminus is situated in the area known as Kingston.

A direct and convenient passenger service is in operation connecting Canberra with Sydney and Melbourne, and trains leave both cities for Canberra daily except Saturdays. Improved facilities for goods traffic have also been provided.

A trial survey of the Canberra—Jervis Bay line has been completed, and plans prepared to enable an estimate of the cost of the line to be obtained, but no action in regard to this project is contemplated at present.

Under the provisions of the *Seat of Government Surrender Act* 1909 of New South Wales, and the *Seat of Government (Acceptance) Act* 1909 of the Commonwealth, an agreement exists between the Commonwealth and the State of New South Wales in relation to the construction of a railway from Canberra to Yass—a distance of, approximately, 43 miles, of which about 32 miles extend through New South Wales. The State is required to construct its portion of the line as soon as the Commonwealth builds a line to the boundary of the Territory.

8. *Population.*—The census return of population on the 30th June, 1933, was 8,765 in the Federal Capital Territory and 181 in Jervis Bay Territory, or a total of 8,946 persons.

9. *Live Stock.*—The live stock, according to the latest return, comprised :—Horses, 926, Cattle, 5,626, Sheep, 234,422.

10. *Educational Facilities.*—Arrangements have been made with the New South Wales Education Department to continue for the time being the administration of education in the Territory, the expenditure involved being refunded annually to the State. There are twelve schools in the Territory, including one at Jervis Bay. The largest of these is Telopea Park Intermediate High School, which is situated on the south side of the city area. It has accommodation for 1,000 scholars, and its curriculum provides a standard of education comparable in range of subjects with that provided at the best of the Government High Schools in New South Wales, thus permitting scholars to qualify for entrance to the Universities.

The School also provides for Junior Technical, Commercial, and Trades School Branches, as well as Evening Commercial and Matriculation Classes.

The Trades School, which is excellently equipped, supplies the necessary training for apprentices and journeymen who are desirous of improving their respective trade qualifications.

Provision at the School has also been made for Domestic Science and Dressmaking Sections.

An Infants' School, to accommodate 450 children, has been erected on the north side of the city, where for the present scholars of the primary standard on the north side of the river are being catered for. Apart from two other smaller schools in the temporary section of the city settlement, the balance are small rural schools serving the needs of easeholders settled in the Territory.

Reference to the establishment of a University College at Canberra will be found in Chapter VIII., Education, herein.

There are at present three private schools in the Territory. The Canberra Grammar School for Boys, Canberra Church of England Grammar School for Girls, and St. Christopher's Convent—all of which provide for primary and secondary education.

11. Finance.—(i) *Financial Year 1932-33.* Receipts and Expenditure for the financial year 1932-33 are given in the table hereunder.

FEDERAL CAPITAL TERRITORY.—RECEIPTS AND EXPENDITURE, 1932-33.

Receipts.		Expenditure.				
Items.	Amount.	Items.	Capital.	Main-tenance.	Other.	Total.
	£		£	£	£	£
Rents .. ..	81,075	Cottages, Buildings, &c. ..	23,699	17,300	..	40,999
Rates .. ..	5,496	Public Utilities—				
Electricity ..	44,522	General .. ..	52,576	67,003	..	119,579
Motor Registration and Fees .. ..	7,294	Other .. ..	7,866	39,002	..	46,868
Water Charges ..	2,728	Advances under Housing Ordinances .. ..	7,500	..	..	7,500
Hotels .. ..	87,912	Alleviation of Distress and Unemployment Relief ..	5,980	46,890	..	52,870
Transport and Bus Service .. ..	52,108	Education .. ..	..	..	18,768	18,768
Hospital .. ..	12,423	Hotels—Working Expenses ..	..	..	87,437	87,437
Sales of Goods and Manuf. Products, etc.	84,253	Transport and City bus Service—Working Expenses ..	..	..	42,538	42,538
Miscellaneous ..	19,065	Factories, Stores, etc.—Working Expenses .. ..	..	..	70,947	70,947
		Hospital—Working Expenses ..	..	..	12,423	12,423
		Interest and Sinking Fund ..	..	..	295,327	295,327
		Administrative .. ..	..	..	44,058	44,058
		Miscellaneous—Police, Fire Brigade, etc .. ..	..	..	62,171	62,171
Total Receipts ..	396,876	Total Expenditure ..	97,621	170,195	633,669	901,485

(a) Includes £9,941 in respect of Hospital; £3,440 Hotels, and £15,681 Transport, paid to the credit of the respective Trust Accounts.

(ii) *From Date of Selection of Site to 30th June, 1931.*—The total receipts and expenditure from the date of selection of site to the 30th June, 1931, were as follow:—

FEDERAL CAPITAL TERRITORY.—RECEIPTS AND EXPENDITURE TO 30th JUNE, 1931.

Receipts.		Expenditure.	
Items.	Amount.	Items.	Amount.
	£		
Loans and Advances .. ..	6,220,299	Lands .. ..	901,133
Rents .. ..	1,050,845	Engineering Works .. ..	3,591,441
Hotel and Liquor Receipts ..	601,410	Architectural Works .. ..	3,595,581
Revenue from Local Government and State undertakings ..	571,478	Other Capital Expenditure ..	301,608
Receipts from Sundry Debtors, Sale of Goods, Transport, etc. ..	764,082	Maintenance and Administration ..	3,821,057*
		Other .. ..	12,588
Total Receipts .. ..	9,208,114	Total Expenditure .. ..	12,223,408

\* Does not include accumulated interest, approximately £1,966,000.

The sources from which the expenditure has been made are shown in the statement hereunder :—

	£
Receipts as on previous page .. .. .	9,208,114
Initial liability of the Federal Capital Commission .. ..	2,966,600
Expenditure on Parliament House and Railways at 31st December, 1924, not taken over by Commission .. .. .	177,438
Expenditure, May and June, 1930, from Loan Fund .. .. .	39,007
Expenditure, 1st July, 1930, to 30th June, 1931, from £	
Loan Fund .. .. .	113,077
Less Advances under the Housing Ordinance, 1928-30 .. .. .	42,203
	70,874
Expenditure over Receipts, May and June, 1930, from Consolidated Revenue .. .. .	9,324
Expenditure over Receipts, 1st July, 1930, to 30th June, 1931, from Consolidated Revenue .. .. .	£ 470,497
	£
Less Interest payment .. .. .	352,777
Amount paid to credit of Trust Fund, F.C.T.	
Transport .. .. .	500
	353,277
	117,220
	12,588,577
Less credit in Trust Funds at 30th June, 1931 .. .. .	350
Interest paid to Treasury but subsequently taken as a repayment of advances .. .. .	190,621
Adjustment of Housing Ordinance 1928-30 Loans advanced by Treasury .. .. .	174,198
	Cr. 365,169
	12,223,408

Later information on similar lines to the above is not at present available.

#### NORFOLK ISLAND.

1. *Area, Location, etc.*—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3' 45" south, longitude 167° 58' 6" east. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney it is distant 930 miles, and from Auckland, 630 miles. The coast line is 20 miles, and its form that of an irregular ellipse. Except on the south-west, inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 56° and 82°, with a mean of 68°. The average annual rainfall is 55 inches. It has been said that the salubrious climate, coupled with the beauty of its land and sea scapes, should combine to render Norfolk Island "the Madeira of the Pacific." At present the island is visited annually by a fair number of tourists, and with the improved shipping facilities now available, this traffic is likely to increase.

2. *Settlement.*—The first colonization, in 1788, was by Lieutenant King, who in H.M.S. *Supply* established a small penal station as a branch settlement of that at Port Jackson. The settlement was abandoned in 1813, and for 13 years thereafter its chief use was as a whaling station and place of call for British warships.

From 1826 to 1855 it was again made a penal station. In 1844 it was annexed to Van Diemen's Land (Tasmania).

The descendants of the *Bounty* mutineers, having become too numerous to subsist on Pitcairn Island, were removed thence to Norfolk Island in 1856. The new community numbered 94 males and 100 females—and were the descendants of British sailors and Tahitian women. Five of these were still alive at the 75th anniversary of the transfer, celebrated in June, 1931. One has since died.

3. **Administration.**—In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896 it was made a dependency under the Governor of that Colony. In 1913, however, the Federal Parliament provided for the taking over of the island as a territory of the Commonwealth. From July, 1914, until 1st January, 1929, Norfolk Island was administered by the Department of Home and Territories, through an Administrator and Chief Magistrate, but it is now administered by the Prime Minister's Department. (See also Official Year Book No. 22, p. 604.)

4. **Population.**—The population on 30th June, 1932, was estimated at 1,074, consisting of 580 males and 494 females. In the year 1931–32, 32 births, 13 deaths, and 9 marriages were recorded.

5. **Live Stock.**—The latest returns of live stock show that in 1929 there were on the island 1,590 cattle, 645 horses, 279 sheep, and 65 pigs. In addition, there were 5,772 head of poultry. The quality of the live stock, generally speaking, is poor, but efforts are being made to improve it.

6. **Production, Trade, etc.**—The soil throughout is rich, and is specially suitable for the cultivation of citrus fruits, bananas, and (in parts) coffee. The banana industry is making progress, and about 32,000 cases were shipped in 1931–32, as compared with about 31,700 cases during the preceding year. Various other sub-tropical fruits thrive well. During 1931–32, the export of oranges was 1,192 cases; passion fruit and pulp, 562 cases; mixed fruit, 831 cases; potatoes, 1,279 cases. There are many thousands of lemon trees and guavas growing wild throughout the island.

Large numbers of whales pass the island throughout the season, but whaling has now practically ceased. The preserved fish industry which was established some years ago has been abandoned; although such fish as trevalla, kingfish, snapper, and many others, are plentiful.

Imports and exports for the last five years are given hereunder :—

NORFOLK ISLAND.—IMPORTS AND EXPORTS.

Heading.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
		£	£	£	£	£
Imports	.. ..	42,756	55,894	46,776	43,370	40,278
Exports	.. ..	19,254	33,027	32,255	21,908	20,555
Total	.. ..	62,010	88,921	79,031	65,278	60,833

7. **Communication.**—The "all-red" cable from Great Britain via Vancouver, Fanning Island, and Fiji, bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane.

An alternate 12 and 30 days' shipping service to the Territory is maintained by the vessels of Burns, Philp & Co. Ltd., Sydney, under the terms of the contract with the Commonwealth Government for the maintenance of shipping services to the Pacific Islands.

On one voyage the SS. *Morinda* leaves Sydney, calls at Lord Howe Island and Norfolk Island and then proceeds to the New Hebrides, returning to Sydney by the same route. The same vessel then makes a short trip to Norfolk Island and returns to Sydney calling at Lord Howe Island on both the outward and inward voyages.

The journey from Sydney to Norfolk Island occupies four days.



8. **Social Condition.**—Education is free and compulsory up to the age of fourteen years. The school conforms to the Australian standard of public education, ranging from kindergarten to the intermediate certificate, with a two years' superprimary course according to the requirements of a High School of the Rural Science type. The headmaster and two assistant teachers are lent by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled in 1932 was 160.

The Magistrates' Court has criminal jurisdiction in all crimes except capital offences, civil jurisdiction in all matters, and authority to grant probate and letters of administration.

9. **Finances.**—The receipts and expenditure for the year 1931–32 were as follow :—

**NORFOLK ISLAND.—RECEIPTS AND EXPENDITURE, 1931–32.**

Heading.		Receipts.	Heading.		Expenditure.
		£			£
Brought forward	..	8,226	Salaries .. ..	..	5,412
Commonwealth Subsidy	..	3,500	Miscellaneous .. ..	..	2,686
Customs Duties .. ..	..	3,999	Purchase of Liquor .. ..	..	3,014
Sale of Liquor .. ..	..	3,608	Balance carried forward	..	10,341
Miscellaneous .. ..	..	2,120			
<b>Total .. ..</b>		<b>21,453</b>	<b>Total .. ..</b>		<b>21,453</b>

**PAPUA.**

**§ 1. General Description.**

1. **Early Administration.**—Particulars of the early administration of Papua were given in Official Year Book No. 19, p. 576.

2. **Administration by Commonwealth of Australia.**—The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of the 18th March, 1902, and was accepted by the Commonwealth by the Papua Act 1905, which came into force by virtue of the proclamation aforesaid. The transfer was made under the authority of section 122 of the Constitution. The Territory is now under the administration of the Commonwealth, but not included within it, and is divided into magisterial districts.

3. **Area, etc.**—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Sudest and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 800 miles; towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland, and 1,936 on the islands. The total area is about 90,540 square miles, of which 87,786 are on the mainland, and 2,754 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (see No. 18, p. 633).

## § 2. Population.

The white population of Papua on 4th April, 1921, was 1,343, made up of 961 males and 382 females. Included in these figures were 79 persons, who were passengers and crew of the s.s. *Marsina*, which was at Samarai at the taking of the Census. The following table gives the white population in each of the last five years :—

### WHITE POPULATION OF PAPUA.

YEAR ENDED 30TH JUNE.

1928.	1929.	1930.	1931.	1932.
1,428	1,523	1,525	1,128	1,152

The chief occupations of the non-indigenous population at the taking of the Census were :—Government officials and employees, 132; commercial pursuits, 150; shipping, 124; tropical agriculture, 266; missionary work, 144; mining, 159.

It is not possible to give exact data regarding the number of natives, because a large area of the interior is not yet under Government control. The official estimate is 275,000. Such censuses of the native population as have been taken during recent years point to a slight increase. The coloured population, other than Papuans, numbered on 4th April, 1921, 577, and included many mission teachers from Samoa, Fiji, and other Pacific Islands. On the same date, half-castes, with one of the parents a European, numbered 158. An Immigration Restriction Ordinance prohibits the immigration of persons who fail to pass the dictation test, or who are of bad character, or likely to become a charge upon the public. Exemptions may, however, be granted by the Lieutenant-Governor to persons of special skill required for employment as overseers or foremen.

## § 3. Native Labour, Taxation, Health, etc.

1. **Native Labour.**—Information regarding the conditions connected with the employment of native labour will be found in Official Year Book No. 22, p. 607.

Owing to the present economic depression, the number of indentured native labourers has considerably declined and only about 5,244 natives were employed under contract in 1932 compared with 6,000 in 1931. Wages paid under contract of service decreased from £48,328 in 1931 to £45,079 in 1932. The number of unindentured labourers decreased from 2,183 in 1931 to 1,923 in 1932.

2. **Native Taxes.**—Under the Native Taxes Ordinance, passed in 1918, a tax not exceeding £1 may be imposed on natives, excepting native constables, mission teachers, natives unfit for work, and those who have four living children. The proceeds of the tax must be expended on native education, or devoted to purposes directly benefiting the natives, as may be prescribed.

The taxes collected in 1931–32 amounted to £14,790, of which £3,195 was transferred to the Native Education Fund, and £9,182 to the Native Benefit Fund. The Native Education Fund during the year 1931–32 disbursed to primary and technical education £4,598, and to agricultural education £1,256, leaving a credit balance of £22,568. From the Benefit Fund the expenditure included :—Anthropology £809, health £6,583, village improvements £428, family bonuses £1,328.

3. **Care of Half-caste Children.**—An Ordinance was passed in 1922 to provide for the care and maintenance of neglected half-caste children. The Ordinance provides that a sum of £26 per annum shall be paid to the Commissioner for Native Affairs by the adjudged father of the child until the child, if a boy, shall reach the age of 16 years, or, if a girl, 18 years.

4. **Health.**—The two principal native hospitals are in Port Moresby and Samarai ; but minor hospitals are attached to the out-stations. Hospitals are also conducted by the various mission societies and plantation companies. The mission societies employ two qualified doctors and a number of trained nurses. Two travelling medical officers and several European medical assistants are employed by the Government. Natives are also being trained as medical assistants. The chief complaints treated are yaws, ulcers, lung affections, hookworm, venereal and skin diseases. In 1932 an epidemic of influenza was responsible for a large number of deaths in the mountain districts not yet under effective Government control. Dysentery was also epidemic in some parts of the Territory. The death rate amongst native labourers is about 1 per cent.

#### § 4. Land Tenure.

1. **Method of Obtaining Land.**—Information under this heading is given in Official Year Book No. 22, p. 608.

2. **Holdings.**—On the 30th June, 1932, the lands of the Territory were held as follow :—

##### PAPUA.—HOLDINGS, 1932.

Description.	Area.
	Acres.
Land held by the natives .. ..	56,899,084
Crown land .. ..	831,835
Freehold land .. ..	22,932
Leasehold land .. ..	191,749
Area of Territory .. ..	57,945,600

Private sales of land in the Territory have now practically ceased. The Government buys from the natives, and then leases to planters, who are forbidden to have direct dealings in land with Papuans.

Of the total area of 191,749 acres shown above, agricultural leases accounted for 176,916, pastoral leases for 13,787, special leases for 190 and mission leases for 561.

The area of land acquired by the Crown in 1931–32 was 19,287 acres.

The total area surveyed in the Territory is 21,695 acres of freehold, and 302,899 acres of leasehold.

#### § 5. Production.

1. **General.**—The products of the Territory are obtained from its agricultural, forestal, fishing, mining, and manufacturing industries. For many years gold-mining yielded the largest returns, but the production has dwindled considerably owing to the exhaustion of the alluvial deposits. There is a possibility of obtaining petroleum in marketable quantities. Amongst plantation products, copra occupies the foremost place, but little coconut planting has been done in recent years. Portions of the Territory appear well suited for cotton cultivation.

2. **Agriculture.**—(i) *Soil and Rainfall.* Rich soils at varying elevations, and heavy and evenly distributed rainfall favour the cultivation of a variety of tropical products including sugar cane, coco-nuts, sago palm, bread fruit, dyewoods, spices, ginger, nutmegs, bananas, and other fruits. There are large areas of rich alluvial and volcanic soils along the coast, and fertile land is found at elevations up to 6,000 feet. Heavy rainfalls occur, except over a belt of country which runs back from the coast to the hills, and which has its dry season from May to November. This “dry” area is admirably suited for the production of tobacco, fibres, cotton, etc. There are 20 meteorological stations throughout the Territory, and an economic museum and agricultural library have been established.

(ii) *Plantations.* On 31st December, 1930, there were 338 plantations. Agricultural settlement has been mostly in the Central and Eastern Divisions, and the area planted was 58,904 acres, as against 59,487 in 1929. The principal plantation crops are coco-nuts, rubber, and sisal hemp. There is also some cultivation of bowstring hemp, kapok, coffee, tobacco, cotton, vanilla, cocoa, tapioca, cinnamon, tea, rice, and maize. The natives are compelled by an ordinance to plant coco-nuts for food supply. In addition to the coconuts in these plantations, many more are planted over small and widely scattered areas by the older natives in accordance with custom. The Native Plantations Ordinance provides for the establishment of plantations in which half of the proceeds is paid to the natives entitled thereto, and the remaining half paid into the Native Education Fund. The following table shows the areas under the different cultures at the end of December, 1931:—

PAPUA.—AREA OF PLANTATIONS, 1931.

Description.	Area.
	Acres.
Coco-nuts .. .. .	49,413
Rubber .. .. .	10,320
Hemp .. .. .	150
Kapok .. .. .	267
Coffee .. .. .	360
Cotton .. .. .	10
Rice .. .. .	16
Sugar .. .. .	30
Mauritius Beans .. .. .	75
Other cultures (including fruit trees) .. .. .	481
<b>Total .. .. .</b>	<b>61,122</b>

The quantities of copra and rubber exported during the year ended 30th June, 1932, were:—Copra, 10,011 tons; rubber, 806 tons. Compared with the year 1930 there was an increase in the acreage under coconuts, rubber, coffee, rice, sugar, and Mauritius beans, and a decrease in the acreage under hemp, kapok and cotton.

(iii) *Government Plantations.* There are two Government plantations, the Orangerie Bay coconut plantation and the Kemp Welch rubber plantation. The profits from these and from various minor plantations in 1931-32 were £5,035, as against £3,582 in 1930-31.

3. *Forestry.*—According to the Commonwealth Forestry Adviser the principal softwood timber is known as "ilimo," while among satisfactory timbers of the lowlands are "nara," "medobi," and "melila." There is a large number of woods, varying from the softest to the hardest, including beautiful cabinet woods, but research is necessary to determine their usefulness. The development of a coniferous belt at the higher altitudes offers great possibilities. It is believed that teak and sandalwood are well suited for cultivation.

4. *Live Stock.*—At 31st December, 1931 (the latest date for which particulars are available), the live stock in the Territory consisted of 404 horses, 5,432 head of cattle, 123 mules, 15 donkeys, 2,458 goats, and 592 pigs. A Government stud-farm established for the breeding of horses has been closed. The introduction of rabbits, foxes, hares, and monkeys is prohibited.

5. *Fisheries.*—Pearl-shell fishing occupies an important place in the industries of Papua. A considerable number of luggers is licensed, but the returns are mostly credited to Queensland, whose boundary approaches to within a few miles of the Papuan coast. The species of tortoise which supplies the commercial tortoise-shell is also a native of Papua. Bêche-de-mer and trochus are found along the shores and reefs, and form valuable articles of export.

6. Mining.—(i) *Variety of Minerals.* Minerals have been found over a wide range of country. Those discovered so far are—gold, copper, tin, lead, zinc, cinnabar, iron, osmiridium, gypsum, manganese, sulphur, graphite, chromite, lignite, and petroleum. The existence of petroleum has been traced at scattered intervals over a large area.

Of precious stones, only the topaz and beryl have been obtained. Large beds of apparently good coal also exist.

(ii) *Gold.* Gold was discovered in 1888 and the search gradually spread over every division, finds being reported wherever the explorers went. The total quantity in fine ounces and the value as returned of the gold yield for the last five years are given below :—

**PAPUA.—GOLD YIELD.**

1927-28.		1928-29.		1929-30.		1930-31.		1931-32.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
fine ozs.	£	fine ozs.	£	fine ozs.	£	fine ozs.	£	fine ozs.	£
1,704	7,240	1,625	6,901	2,368	10,059	5,283	22,440	8,014	34,043

NOTE.—The value allotted in this table is the conventional value of £4 4s. 11<sup>5</sup>/<sub>16</sub>d. per fine ounce. The values for the later years if expressed in contemporary currency would be much greater.

Most of the rivers, with the exception of those flowing into the Gulf of Papua, have been declared open to gold-dredging, and good yields have been obtained. The total value of gold won to 30th June, 1932, was £1,809,875.

(iii) *Copper.* Owing to the very low prices ruling for copper in the world's market, the copper mines in Papua have practically suspended operations. The production of copper ore in 1931-32 was only 1½ tons, valued at £60. The total value of the copper exported to the 30th June, 1932, was £366,743.

(iv) *Osmiridium.* The existence of osmiridium had been known for several years, but for some time no serious attempt was made to collect it, the alluvial gold miner formerly picking out the larger slugs of the metal from his gold parcel and throwing them away.—The production in 1931-32 had dwindled to ¾ oz., valued at £12.

(v) *Other Minerals.* Some good samples of galena (sulphide of lead) have been obtained, while cinnabar (sulphide of mercury), graphite (or plumbago), zinc-blende, native sulphur, and other minerals are known to exist. In 1924 a deposit of lignite was discovered on Smoky Creek, a tributary of the Era River.

A mineral laboratory and museum have been fitted up, and are available to prospectors and others interested.

7. *Water Power.*—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there are at least 10,000,000 h.p. available for this purpose.

**§ 6. Finance, Trade, Postal and Shipping.**

1. *Finance.*—The principal sources of revenue were as follow :—Commonwealth Grant, £40,000; Customs and Excise, £39,168; Government Plantations, £5,035; Fees of Office, £5,210; Land Revenue, £5,523; Post Office, £8,297; Port and Wharfage Dues, £2,906; and Miscellaneous, £23,977.

Returns of revenue and expenditure, for the last five years, exclusive of Commonwealth grants, are given hereunder :—

**PAPUA.—LOCAL REVENUE AND EXPENDITURE.**

Item.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Revenue .. ..	107,052	93,751	107,266	89,918	90,116
Expenditure .. ..	158,964	152,949	151,874	135,325	128,682

2. **Trade.**—The value of imports and exports for the last five years is shown in the table below :—

## PAPUA.—IMPORTS AND EXPORTS.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Imports .. ..	403,561	361,271	373,918	240,074	221,843
Exports .. ..	350,363	337,365	324,775	274,354	269,254
Total Trade ..	753,924	698,636	698,693	514,428	491,097

As in all new countries, the imports consist chiefly of articles necessary for the primal needs of the community, such as agricultural products and groceries, drapery, machinery, tobacco, oils, paints, beverages, wood, wicker and cane, drugs, etc. The chief items of export during the last five years are as follow :—

## PAPUA.—PRINCIPAL EXPORTS.

Article.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Bêche-de-Mer .. ..	14,907	11,833	6,381	5,549	..
Copra .. ..	194,019	214,051	176,485	93,710	100,454
Desiccated Coco-nut .. ..	7,407	16,033	39,923	79,264	59,826
Gold .. ..	6,364	6,767	10,632	22,440	34,338
Pearls .. ..	827	1,861	11,422	123	..
Rubber .. ..	102,158	46,816	50,640	47,036	49,262
Trochus Shell .. ..	12,013	9,044	10,975	7,606	8,510

Though the copra and rubber trades still suffer from low prices, last year showed a slight improvement both in quantity and value. The production of gold is increasing, and last year's output was the largest for several years. Tobacco figured for the first time amongst the articles of export. Other industries are languishing owing to low prices. This applies to the bêche-de-mer industry, cotton growing and copper mining.

3. **Shipping.**—The following table shows the number and tonnage of oversea vessels entered and cleared at ports during the years 1927-28 to 1931-32. All the vessels in 1931-32 except 26 were of British nationality.

## PAPUA.—OVERSEA SHIPPING.

Year.	Vessels.	Tonnage.
1927-28 .. ..	159	226,784
1928-29 .. ..	171	184,946
1929-30 .. ..	180	228,391
1930-31 .. ..	171	220,399
1931-32 .. ..	185	333,304

Throughout, the figures are exclusive of ships of war and Government vessels.

## § 7. Progress of Papua.

As already stated (§ 1, *supra*) the Territory was placed under the Commonwealth control on 1st September, 1906. The following table indicates the progress that has been made since that date :—

## PAPUA.—STATISTICAL SUMMARY.

Items.	Year ended 30th June—	
	1907.	1932.
White population .. .. .	690	1,152
Native labourers employed .. .. .	2,000	5,244
Territorial revenue .. .. .	£21,813	£90,116
Territorial expenditure .. .. .	£45,335	£128,682
Value of imports .. .. .	£87,776	£221,843
Value of exports .. .. .	£63,756	£269,254
Area of plantations .. .. . acres	1,467	61,122
Meteorological stations established .. .. .	3	20
Gold yield .. .. . fine ounces	12,439	8,014

## THE TERRITORY OF NEW GUINEA.

## § 1. General Description.

The Territory of New Guinea comprises that portion of the former German New Guinea Protectorate which lies south of the equator (excepting only the island of Nauru), and known in German times as the "Old Protectorate." The principal islands (with their German names if these differ from those now in use) and their approximate areas are as follow :—

## AREA OF TERRITORY OF NEW GUINEA.

Particulars.	Approximate Area.
	Square Miles.
North-East New Guinea (Kaiser Wilhelm's Land) .. .. .	70,000
Bismarck Archipelago—	
New Britain (Neu Pommern) .. .. .	13,000
New Ireland (Neu Mecklenburg) .. .. .	3,000
Lavongai (New Hanover or Neu Hannover) .. .. .	600
Admiralty Islands and North-Western Islands .. .. .	1,000
Solomon Islands—	
Bougainville .. .. .	3,200
Buka .. .. .	200
Total .. .. .	91,000

Information regarding physiography and climate will be found in Official Year Book No. 22, p. 613. A map of the territory was published in Year Book No. 16, p. 665.

## § 2. Government.

1. **The Military Occupation.**—On the 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government in May, 1921.

2. **Mandate.**—The Mandate from the Allied and Associated Powers in accordance with which the Territory of New Guinea is administered by the Commonwealth was issued by the League of Nations in December, 1920. The terms of the Mandate appear in Official Year Book No. 16, pp. 662-3.

3. **New Guinea Act.**—In anticipation of the issuing of the Mandate, the Commonwealth Parliament, in September, 1920, passed the New Guinea Act 1920, by which the Governor-General was authorized to accept the Mandate when issued. The Territory was, by the Act, declared to be a Territory under the authority of the Commonwealth, with the name of the Territory of New Guinea.

The Act provided for an Administrator, while power to legislate for the Territory was to be exercised by the Governor-General, and provision was made for the observance of safeguards in the interests of the natives as set out in the Mandate.

In 1932 the Act was amended to provide for the establishment of a Legislative Council and an Executive Council for the Territory. The Legislative Council is empowered to make ordinances for the peace order and good government of the Territory. Such Ordinances are subject to disallowance by the Governor-General who is not now empowered to make Ordinances. The Amending Act was proclaimed to commence on 2nd May, 1933, and the Act is now entitled the New Guinea Act 1920-1932.

4. **Legislative Council.**—The Legislative Council consists of the Administrator as President, eight official members, and seven non-official members, the latter nominated by the Administrator and appointed by the Governor-General.

5. **Establishment of Civil Government.**—Official Year Book No. 19, p. 586, contains an account of the establishment of Civil Government in the Territory.

6. **Expropriation.**—The Treaty of Peace provided that German nationals resident in her former colonies might be repatriated, and that the property rights and interests of German nationals in former colonies might be retained and liquidated by the Allies, the proceeds being credited to Germany in part payment of the reparation payable by her under the Treaty. In pursuance of these powers, in September, 1920, the property of the principal German companies in the Territory, and in March, 1921, that of a large number of German planters, was vested in the Public Trustee. (See Year Book No. 17, p. 631.) In 1926 and 1927 these plantations were transferred to private owners.

7. **Departments and Districts.**—The Administration is organized in eight Departments—Government Secretary; Treasury; District Services and Native Affairs; Public Health; Customs; Lands, Mines, Surveys, and Forestry; Agriculture; and Public Works.

For administrative purposes the Territory is divided into seven Districts. They are as follow:—New Britain, comprising New Britain and adjacent islands; on the Mainland—Morobe, Madang, Sepik; New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Kieta, the former German portion of the Solomon Islands. Each district is under a District Officer, assisted by a small staff.

8. **Statute Law.**—The Acts of the Commonwealth Parliament do not (unless expressly so stated) extend to the Territory, but the *Laws Repeal and Adopting Ordinance 1921* provided that certain Acts and Ordinances should be applied thereto. (See Year Book No. 17, p. 631.)

9. **Reports to the League of Nations.**—Twelve reports have been rendered to the League of Nations in compliance with Article 6 of the Mandate, the latest being for the year ended 30th June, 1932.



### § 3. Population.

1. **White Population.**—The increase in the white population at various intervals since 1885 is shown in the appended tabulation. At the census of 1921, the population was 1,288, of whom about 250 were missionaries, and 262 were persons engaged in administration, 715 were British subjects, and nearly all the remainder were nationals of former enemy countries. On 30th June, 1932, the number of Europeans was about 3,100.

#### TERRITORY OF NEW GUINEA.—WHITE POPULATION.

Year.	Number.			Year.	Number.		
1885	..	..	64	1930	..	..	2,850
1928	..	..	2,400	1931	..	..	2,900
1929	..	..	2,600	1932	..	..	3,100

2. **Asiatic Population.**—Malays seem to have been the first Asiatics brought by the Germans to German New Guinea; 37 of them were recorded on the mainland in 1885. About 1889 the New Guinea Company began to bring Chinese, Malays, and Javanese in growing numbers from Singapore and Java to work on the plantations; by 1892 there were about 1,800 on the mainland. By 1898 the number had decreased to 300 or 400. The number of Chinese in the Mandated Territory reached its highest peak in 1921, with 1,424. Since then it has declined, and in 1932 the total was returned at 1,215.

The Japanese at present number about 35. The total Asiatic population, which in 1914 was 1,681, had increased in 1921 to 1,778. The Chinese provide the skilled artisans of the Territory, and many of them are small traders. Most of the Japanese residents are employed on the plantations, or in shipyards and stores.

3. **Native Population.**—As a large portion of the Territory is not under Government influence it is not possible to obtain reliable figures in regard to the number of the natives.

The following table shows the number enumerated as at 30th June, 1932.

#### TERRITORY OF NEW GUINEA.—NATIVE POPULATION, ENUMERATED 30th JUNE, 1932 (EXCLUSIVE OF INDENTURED LABOURERS).

District.	Children.			Adults.			Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Aitape ..	13,767	11,004	24,771	23,584	18,657	42,241	37,351	29,661	67,012
Kieta ..	7,407	6,172	13,579	14,013	12,383	26,396	21,420	18,555	39,975
Madang ..	8,769	7,008	15,777	16,862	12,918	29,780	25,631	19,926	45,557
Manus ..	2,765	2,468	5,233	4,521	4,384	8,905	7,286	6,852	14,138
Morobe ..	13,816	12,216	26,032	20,215	18,845	39,060	34,031	31,061	65,092
New Britain ..	18,107	15,507	33,614	29,534	24,971	54,505	47,641	40,478	88,119
New Ireland ..	6,517	5,463	11,980	16,166	12,931	29,097	22,683	18,394	41,077
Sepik ..	6,425	5,521	11,946	8,468	8,547	17,015	14,893	14,068	28,961
Total ..	77,573	65,359	142,932	133,363	113,636	246,999	210,936	178,995	389,931

The total native population of New Guinea is estimated roughly at about 520,000. Whether the number is increasing or decreasing cannot be ascertained with certainty. The number of natives indentured as labourers, mostly for plantation work, on 30th June, 1932, was 26,606, compared with 27,765 in the previous year.

### § 4. The Natives.

1. **General.**—A brief description of the native inhabitants of the Territory was included in Year Book No. 16, p. 670. It may be noted here that the natives are divided into two main groups—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands, and the coastal districts of the New Guinea mainland, while the latter inhabit the interior of

the mainland. Odd tribes of Negritoes are known to exist in the mountains of New Guinea. In the Admiralty Islanders there is a strain of Papuan, and, possibly, of Polynesian blood, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians.

2. **Land Tenure.**—Native customs in regard to the ownership and use of land may be briefly outlined as follows :—The ownership and use of the land are generally individual, although, in some rare cases, particularly in North Bougainville, the communal system exists. In districts where a great many coco-nut-bearing palms are growing on native lands it is often found that the land is the property of a chief or of one of the old men of the tribe, and that the coconut palms growing thereon are divided into small groves, and are the property of several members of the tribe. Customs with regard to the use of unoccupied forest lands vary. Right of inheritance to land is almost invariably through the maternal branch. (See Year Book No. 17, p. 634.)

3. **Research Work.**—During the German occupation of the Territory a certain amount of research work was carried out, partly by scientific expeditions, and partly by missionaries and by a local resident. An anthropologist has been appointed by the Commonwealth Government to consolidate the work already done, and to extend it to parts of the Territory which have not yet been covered. The results of his work appear in special reports.

4. **Education.**—The education of the natives was provided for in the "Education Ordinance of 1922" under which the Administrator was authorized to establish schools, grant money therefor, prescribe instruction, and arrange for the training of teachers and other matters. Simultaneously a Native Education Trust Fund was inaugurated, over which the Administrator was given control, and for the benefit of which he was empowered, within certain limits, to levy taxes on the natives and on employers of native labour. The expenditure on native education in 1931-32 was £6,414. Though the natives are liable to pay education tax, none has been collected since 1922-23, whereas a considerable sum annually is obtained from a tax levied on employers of native labour.

In 1929 the Under-Secretary for Education in Queensland visited the Territory to advise regarding educational matters, and his reports have been accepted as the basis of the educational policy. The European teachers have been seconded from the Education Department of Queensland. During the year ended 30th June, 1932, the following schools were maintained by the Administration :—Native elementary boarding schools and native day schools, Rabaul and Kavieng; native technical school, Rabaul; native agricultural school, Keravat. In addition there is a school for Europeans at Rabaul. (See Year Book No. 17, p. 635.)

A considerable amount of educational work is carried out by the missions, the schools maintained being of three classes—(a) elementary schools in villages; (b) intermediate boarding schools at headquarters; and (c) high schools and technical schools. At the end of June, 1932, the various missions maintained 131 training centres, 42 high and technical schools, 572 elementary schools, and 900 village schools. The pupils numbered 44,879.

The missions also conduct schools for Chinese children in Rabaul and Kavieng.

The granting of assistance to mission schools is authorized by the Education Ordinance, but no grants have hitherto been made.

5. **Health of Natives.**—In a report dealing with the health of the natives in New Britain submitted before the war, it was stated that "the natives in the districts examined are not degenerate; but they are sick." The same qualification undoubtedly applies to the native population throughout the Territory.

The diseases taking the greatest toll of native life—directly, or through lowering vitality—are :—Malaria, respiratory diseases, dysentery, frambœsia, yaws, tropical ulcer, hookworm, filariasis, and beriberi. Further reference to this subject will be found in Official Year Book No. 18, p. 647.

The Health Department in Rabaul possesses :—(i) a staff of medical officers and orderlies, including travelling doctors; (ii) Native Hospitals at Government stations and sub-stations (its staff also supervises hospitals on plantations); (iii) a laboratory;

(iv) training system for natives as medical orderlies ; (v) scheme of distribution of medical necessaries ; (vi) two leper-stations ; and undertakes the general oversight of sanitary conditions. The first Infant Welfare Centre in the Territory was opened in Malabunga in August, 1931.

6. Missions.—Several mission societies are operating in the Territory. The Society of the Sacred Heart of Jesus works in the Bismarck Archipelago, the Society of the Holy Ghost along the coast of North-East New Guinea from Sek to the Dutch border, the Marists in Buka and Bougainville. These are Roman Catholic Missions. The Protestant Missions are the Australian Methodist Mission in New Britain and New Ireland, the New Zealand Methodist Mission in Bougainville, the Liebenzell Mission in the Admiralty Group, the Lutheran Mission (supported and staffed by the Lutheran Churches in Australia and America), which work along the coast of North-East New Guinea from Sek to the Papuan border, the Melanesian Mission (Anglican), in New Britain, and the Seventh Day Adventist Mission, in Bougainville and New Britain. All these societies combine teaching and planting with their missionary work.

### § 5. Land Policy.

1. Acquisition of Land.—A short account of the modes of acquiring land appears in Official Year Book No. 19, p. 590, but considerations of space preclude its repetition herein.

2. Land Policy of the Present Administration.—The Land Ordinance 1922–28 provides for sale as well as leasing of land belonging to the Administration. The divergence from the policy usually adopted by the British in the Pacific (including Papua), which provides for leasehold only, was made with a view to disposing by sale of the freehold properties taken over from Germans, and which until 1927 were controlled by the Expropriation Board. Reference to the leasehold system in force will be found in Official Year Book No. 18, page 648.

A total area of 274,233 hectares (about 677,356 acres) had been alienated up to the 30th June, 1932. The area alienated in 1931–32 was 1,858 hectares (about 4,589 acres).

3. Registration of Titles.—Under German law there was a system of registration of titles in a "Ground Book," but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in an Ordinance entitled the "Lands Registration Ordinance," 1924–1929.

### § 6. Production.

1. General.—The natives have been described as a people of peasant proprietors, practising a crude form of agriculture. Their gardens and groves furnish but a small amount of produce for oversea trade, and the exports of the Protectorate grew only as European plantations were made, and natives were employed to work them. In recent years scientific methods of cultivation have been adopted, and production is being greatly accelerated thereby.

2. Agriculture.—(i) *General.* Under the supervision of the Director of Agriculture, soil analyses have been undertaken in different parts of the Territory, experimental stations have been founded, and an agricultural school has been established, where natives are being trained in tropical agriculture. A laboratory and a herbarium have been established, an entomologist engaged, and travelling inspectors appointed for the purpose of combating plant pests. Experiments are being carried on with a variety of crops ; these, in conjunction with the *Papua and New Guinea Bounties Act* 1926, and the preference given by the Commonwealth Tariff to certain produce grown in the Territories, have greatly stimulated tropical agriculture.

(a) *Coconuts.* Coco-nut-growing is by far the most important industry in the Territory, but the low price of copra has temporarily checked expansion. The desiccated coco-nut industry is progressing, and there are now three factories operating.

(b) *Tobacco.* This crop has been cultivated with success at Astrolabe Bay in North-East New Guinea, and in the Bismarck Archipelago. Tobacco of high quality, rivalling the best Sumatra leaf, has been produced.

(c) *Cotton*. In 1924-25 the Government obtained 1,615 lb. of cotton seed, and cultivation was tried at the experimental stations as well as by private planters, including a few natives; but little progress has been made.

(d) *Sisal Hemp*. There was a steady although small export of sisal hemp in German times. The quantity exported in 1913 was 10 tons, but there was no export later.

(e) *Cocoa*. Cocoa has been successfully grown, principally at Vitu (French Islands); in 1913, 137 tons were exported. The export in 1931-32 amounted to 102 tons, an increase of 38 tons from the previous year.

(f) *Coffee*. The cultivation of coffee for export has been commenced, and about 287 acres were planted in 1931-32.

(g) *Rubber*. On the mainland a small area has been planted with *Ficus elastica*, but in consequence of the low price of the inferior rubber produced from this source the trees are not being tapped.

(h) *Other Crops*. The climate and soil of New Guinea are suitable for the cultivation of rice, Manila hemp, cinchona, nutmeg, vanilla, peanuts, kapok and maize, but hitherto their cultivation has either not advanced beyond the experimental stage or has been attempted on a small scale only. Sugar-cane of many varieties flourishes, and the natives cultivate extensive areas for their own use; other indigenous food-producing plants include the sago palm and the cassava.

(i) *Plants Yielding Power Alcohol*. It seems probable that alcohol for power purposes will be obtainable economically from the Territory. The sago palm and nipa palm yield as much as 60 gallons a ton, and in places are very abundant.

(ii) *Area of Plantations*. The area of plantations and the principal crops grown thereon are shown in the table hereunder for the year ended 30th June, 1932. The figures are exclusive of native plantations. (One hectare equals 2.4711 acres).

TERRITORY OF NEW GUINEA.—PLANTATIONS, 30th JUNE, 1932.

Areas.	Government. Plantations.	Privately owned Plantations.	Total.
Area of Holdings .. .. . hectares	482	183,895	184,377
Area Cleared .. .. . "	282	91,172	91,454
Area Cleared and Planted .. .. . "	254	87,452	87,706
<b>Coco-nuts—</b>			
Area Planted .. .. . hectares	202	84,551	84,753
Area Bearing .. .. . "	168	67,433	67,601
<b>Cocoa—</b>			
Area Planted .. .. . hectares	2	896	898
Area Bearing .. .. . "	..	337	337
<b>Coffee—</b>			
Area Planted .. .. . hectares	14	88	102
Area Bearing .. .. . "	6	6	12
<b>Kapok—</b>			
Area Planted .. .. . hectares	2	129	131
Area Bearing .. .. . "	..	1	1
<b>Native Food (a) .. .. . hectares</b>	<b>13</b>	<b>2,190</b>	<b>2,203</b>
<b>Other Crops .. .. . "</b>	<b>21</b>	<b>1,076</b>	<b>1,097</b>

(a) Native food of all kinds is mostly grown between young coco-nut palms not yet in bearing.

Several Government plantations were leased during the year.

The area of plantations at various periods from 1885 to 1932 is shown hereunder. As in the case of the previous table, the figures are exclusive of native plantations :—

## TERRITORY OF NEW GUINEA.—PLANTATIONS.

Year.					Total Area.	Area under Coco-nuts (including Area not in Bearing).
					Acres.	Acres.
1885	..	..	..	..	148	(a)
1895	..	..	..	..	2,152	(a)
1911	..	..	..	..	58,837	51,510
1914	..	..	..	..	84,941	76,845
1924	..	..	..	..	179,163	172,373
1931	..	..	..	..	212,495	204,083
1932	..	..	..	..	216,634	209,340

(a) Not recorded.

3. **Live Stock.**—There is little natural pasture in New Guinea, but the coco-nut plantations are now of a sufficient area to maintain numerous live stock, the stock being depastured on the indigenous grasses growing between the rows of trees. In 1932 there were 1,035 horses, 16,802 cattle, 1,279 sheep, 7,923 goats, and 7,152 pigs (exclusive of the large number of pigs kept by the natives). (See also Official Year Book No. 16, page 677.)

4. **Timber.**—An investigation of the timber resources of the Territory has been made by the Commonwealth Forestry Adviser, and a report in connexion therewith was published in 1926. According to this report, while offering no prospects of immediate gain to large saw-milling interests, the Territory possesses forest potentialities of a high order. The timber required for house and shipbuilding and for other purposes is mostly obtained locally. In North-East New Guinea the Neuendettelsauer Mission and the Holy Ghost Mission both possess up-to-date saw-milling plants, while most of the timber required in the Archipelago is supplied by the Sacred Heart Mission's saw-mill, and by three privately owned mills in New Britain. Approximately 750,000 super. feet of timber were sawn in 1931-32. The timber required at the gold-fields is produced locally.

The Timber Ordinance 1922 provides for the issue of permits and licences to cut timber. Timber growing on native lands cannot be acquired by private purchasers directly from the natives, but must be obtained through the Administration. A royalty is paid on all timber exported. Thirteen timber permits were issued during the year 1931-32.

5. **Fisheries.**—The wealth of the waters of the Territory has so far been little exploited. Fish is caught at many places along the coast to supply the small local demand of the natives and of the few resident Europeans. Pearl-shell is exported in fair quantities, while bêche-de-mer, trochus-shell, and tortoise-shell also figure amongst the exports. The value of marine products exported in 1931-32 was £20,219, compared with £29,719 in the previous year.

6. **Mining.**—Except for gold there has been little mining in New Guinea, and knowledge of the mineral resources is as yet but scanty. Gold has been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, etc. Rich gold was discovered in the Morobe District in 1926: the field is situated 60 miles inland. Communication has been established with the coast by a regular aeroplane service. Osmiridium is reported to have been found on the upper tributaries of the Ramu, and platinum on the Kabenau River. Copper has been discovered in the form of chalcopyrite and malachite in the Baining District. Iron occurs as magnesite and hæmatite in the Baining District, apparently in large quantities. Sulphur occurs

in several localities in the volcanic regions of the Territory. Phosphates suitable for use in the making of manures are found in the Purdy Islands. Brown coal has been found on the mainland in the vicinity of Astrolabe Bay, and in the southern portion of New Ireland.

The following table shows the quantity of gold exported and its value during the last five financial years :—

**TERRITORY OF NEW GUINEA.—EXPORTS OF GOLD.**

Year.				Quantity.	Value.
				Oz.	£
1928—29	..	..	..	79,748	179,433
1929—30	..	..	..	42,819	96,338
1930—31	..	..	..	55,201	154,046
1931—32	..	..	..	108,647	398,939
1932—33	..	..	..	196,823	933,940

The increased production in 1932—33 is due to greater activity on the fields coupled with the high price realized for gold.

By the Mining Ordinance of 1923, private companies incorporated or registered in the Territory, two-thirds of whose shares are held by British subjects, became eligible to engage in prospecting and mining for mineral oil and coal. On the 30th June, 1932, 2 licences to search for mineral oil were in force.

**§ 7. Trade.**

1. **Total Trade.**—The value of the imports, exports, and total trade at various periods since 1887, and during each of the last five years, is given in the table hereunder :—

**TERRITORY OF NEW GUINEA.—TRADE.**

Year.				Imports.	Exports.	Total.
				£	£	£
1887	..	..	..	17,133	19,580	36,713
1897	..	..	..	36,713	31,352	68,065
1907	..	..	..	166,585	97,563	264,148
1927—28	..	..	..	811,832	1,471,026	2,282,858
1928—29	..	..	..	869,514	1,146,112	2,015,626
1929—30	..	..	..	878,450	997,335	1,875,785
1930—31	..	..	..	782,765	919,431	1,702,196
1931—32	..	..	..	779,397	1,108,619	1,888,016

The import values are exclusive of money and Government stores. In 1931—32 the imports were distributed as follows :—From Australia, £309,400; United Kingdom, £97,306; America, £183,318; China, £33,612; Germany, £29,083; Japan, £13,947; India, £48,254; Burma, £20,681; Dutch East Indies, £5,831; other countries, £37,965.

2. **Principal Items of Imports.**—From Australia the principal items of imports are foodstuffs and beverages, tobacco, apparel, foot-wear, textiles, machinery, hardware, building material, coal, etc.; from the United Kingdom, textiles, apparel, machinery and hardware, whisky; from America, mining machinery, petrol, kerosene, motor vehicles and lubricating oil, tobacco; from India, rice and sacks; from Burma, rice; from China rice and textiles; from Germany, textiles, aeroplanes, machinery and hardware, and fancy goods; from Japan, textiles and cement.

3. **Principal Items of Export.**—Values of the principal items of export for the last five years are shown hereunder:—

**TERRITORY OF NEW GUINEA.—VALUE OF PRINCIPAL EXPORTS.**

Commodity.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Copra .. .. .	1,176,040	933,769	864,358	716,543	618,298
Cocoa .. .. .	3,859	3,816	3,074	3,200	3,060
Stone and Ivory Nuts .. .. .	..	153	77	75	280
Bêche-de-Mer .. .. .	11,259	4,440	6,360	7,530	4,960
Pearl Shell .. .. .	23,436	22,695	18,410	22,075	15,170
Tortoise Shell .. .. .	216	350	78	114	89
Gold .. .. .	256,216	179,433	96,338	154,046	398,939
Desiccated Coco-nut .. .. .	..	1,456	8,640	37,640	64,100
Miscellaneous .. .. .	..	..	..	15	3,723
<b>Total .. .. .</b>	<b>1,471,026</b>	<b>1,146,112</b>	<b>997,335</b>	<b>941,238</b>	<b>1,108,619</b>

4. **Exports of Copra and Cocoa.**—The next table shows the respective quantities of copra and cocoa exported during the last five years:—

**TERRITORY OF NEW GUINEA.—EXPORTS OF COPRA AND COCOA.**

Commodity.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	Tons.	Tons.	Tons.	Tons.	Tons.
Copra .. .. .	65,285	60,435	63,832	62,393	59,452
Cocoa .. .. .	73	72	58	64	102

Most of the copra is shipped direct to European and American ports.

5. **Banks.**—There are two banks operating in the Territory, the Commonwealth Bank of Australia, and the Bank of New South Wales.

### § 8. Shipping and Communication.

1. **General.**—A subsidized mail service between New Guinea and Australia is maintained by Burns, Philp and Co. Ltd. The vessels of the Eastern and Australian Steamship Co., which maintains a regular monthly service between Australia, China and Japan, have included Rabaul as a port of call. A Norwegian shipping line trading with Australia visits Rabaul once every second month. The Dutch Royal Packet Navigation Co.'s vessels, which maintain a service between Singapore and Australia, also call at Rabaul, and the "Norddeutscher Lloyd" has established a regular service between Hong Kong and Rabaul. Shipping within the Territory is regulated by the *Coastal Shipping, Ports, and Harbours Regulations*.

2. **Oversea Tonnage in 1931-32.**—The number and net tonnage of oversea vessels which entered and cleared the Territory during the year 1931-32 are shown hereunder :—

## TERRITORY OF NEW GUINEA.—SHIPPING 1931-32.

Nationality.	Vessels Entered.		Vessels Cleared.		Total.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
American .. ..	6	15,209	6	15,209	12	30,418
British .. ..	71	189,412	68	189,301	139	378,713
Dutch .. ..	5	10,086	5	10,086	10	20,172
German .. ..	6	5,568	6	5,568	12	11,136
Japanese .. ..	3	801	3	801	6	1,602
Norwegian .. ..	5	20,263	5	20,263	10	40,526
Swedish .. ..	3	8,966	3	8,966	6	17,932
<b>Total .. ..</b>	<b>99</b>	<b>250,305</b>	<b>96</b>	<b>250,194</b>	<b>195</b>	<b>500,499</b>

Country from which Entered or for which Cleared.	Vessels Entered.		Vessels Cleared.		Total.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Australia .. ..	46	137,642	35	100,477	81	238,119
Batavia .. ..	..	..	5	10,086	5	10,086
British Solomon Islands ..	14	13,392	8	2,348	22	15,740
Caroline Islands .. ..	3	801	3	801	6	1,602
China .. ..	8	11,463	6	5,568	14	17,031
Fiji .. ..	1	2,709	..	..	1	2,709
France .. ..	..	..	16	54,973	16	54,973
Japan .. ..	12	49,548	12	49,545	24	99,093
New Caledonia .. ..	2	5,464	..	..	2	5,464
New Hebrides .. ..	3	8,064	..	..	3	8,064
New Zealand .. ..	1	3,926	..	..	1	3,926
Papua .. ..	9	17,296	3	7,971	12	25,267
Samoa .. ..	..	..	1	185	1	185
Singapore .. ..	..	..	1	3,031	1	3,031
United States of America ..	..	..	6	15,209	6	15,209
<b>Total .. ..</b>	<b>99</b>	<b>250,305</b>	<b>96</b>	<b>250,194</b>	<b>195</b>	<b>500,499</b>

3. **Local Shipping.**—A service between Rabaul and the various outports not visited by the mail steamers is maintained by small steamers and motor craft.

4. **Land Communication.**—Means of communication on land are scanty. There are no railways. Roads lead from Rabaul to places within 30 or 40 miles, and there is a road 170 miles long in New Ireland. Elsewhere there are few roads outside plantations and the stations of the District Officers. The large rivers of the mainland are as yet but little used.

There is a high power wireless station at Bitu Paka near Rabaul, and low power installations at the out-stations.

5. **Communication by Air.**—The discovery of gold in New Guinea has resulted in great aviation activity in the vicinity of the gold-fields. On account of the mountainous country and dense undergrowth between the coast and the gold-fields the task of



transporting food and stores to the fields and of bringing the gold to the seaboard by land is an irksome and costly process. The fields are situated about 60 miles inland from Salamaua, and whereas aircraft cover the distance in approximately an hour, the nature of the country is such that a journey by other means occupies more than a week. During 1931-32 an air service was established between Port Moresby and the gold-fields, reducing the time occupied by the journey from Australia by about seven days.

### § 9. Revenue and Expenditure.

1. Revenue.—Details of the revenue collected from various sources during each of the last two years are given hereunder :—

#### TERRITORY OF NEW GUINEA.—REVENUE.

Heading.	1930-31.	1931-32.
	£	£
Revenue from Taxation (direct and indirect) ..	212,598	212,489
Revenue from Public Services and undertakings ..	31,601	43,499
Other receipts .. .. .	46,034	50,084
	290,233	306,072

2. Expenditure.—The expenditure for the financial year 1931-32 was distributed as follows :—

#### TERRITORY OF NEW GUINEA.—EXPENDITURE, 1931-32.

	£		£
Secretary and Central Administration .. .. .	12,506	Public Works .. .. .	16,538
Justice .. .. .	3,141	Trade and Customs .. .. .	8,624
Treasury .. .. .	31,639	Agriculture .. .. .	11,220
Audit .. .. .	4,270	Public Health .. .. .	56,925
Lands and Survey .. .. .	25,450	District Services .. .. .	91,525
Native Affairs, Police, and Prisons .. .. .	13,665	Miscellaneous .. .. .	6,902
		Total .. .. .	282,405

### NAURU.

1. General.—Nauru is an oval-shaped atoll about 12 miles in circumference having an area of about 5,400 acres, of which approximately four-fifths is phosphate-bearing. It is situated in long. 166° E., and is 26 miles south of the Equator. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that the Nauruans reside. With the exception of a small fringe round an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system of land tenure is governed by old custom, and, with the exception of small allotments held by the Government, the British Phosphate Commissioners and Missions, the whole of the island is owned by individual natives. The average shade temperature ranges between 72 and 95° F., and the average humidity between 70 and 80. The average rainfall is 85 inches, but droughts occasionally occur, and in 1916 and 1917 only 40 inches were received for the two years. In 1932 the rainfall amounted to 100.27 inches.

2. **History.**—The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Naval and Military Expedition at Rabaul, and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate for its administration should be conferred upon His Britannic Majesty. The mandate, which is in similar terms to that for the Territory of New Guinea, was confirmed by the Council of the League of Nations on the 17th December, 1920. On 2nd July, 1919, the British, Australian, and New Zealand Governments agreed that the administration of the island (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator who entered on duty in June, 1921. The first Administrator was appointed for a term of five years by the Australian Government; his term of service having expired, it was extended for another five years, but he resigned in 1927. The second Administrator was appointed in June, 1927. The third Administrator was appointed by the Commonwealth of Australia in January, 1933. The Agreement between the three Governments was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and is printed in the Schedule to that Act.

3. **Administration.**—The Administrator has all the powers of government—administrative, legislative, and judicial—in the island. All expenses of administration are met from local revenue. Native industries such as canoe-building, fishing, mat-making, etc., are encouraged by the provision of prizes at annual competitions. An agency of the Commonwealth Savings Bank has been established. There is a co-operative store managed by the natives themselves, the books, however, being audited by Government officers. Natives are not allowed to carry or be in possession of firearms, and the use by them of intoxicating liquors and deleterious drugs is prohibited.

4. **Population.**—Figures for population on 1st April in each of the years from 1928 to 1932 are given hereunder :—

NAURU.—POPULATION.

Population.	1928.	1929	1930.	1931.	1932.
Europeans .. ..	131	134	147	147	141
Chinese .. ..	1,051	1,099	1,110	1,105	696
Nauruans (a) .. ..	1,297	1,365	1,411	1,426	1,475
Other Pacific Islanders .. ..	20	16	16	14	4

(a) The natives of Nauru are Micronesians.

Births in 1932 numbered 63 (all Nauruans). There were 7 marriages (6 Nauruan and 1 European), and 29 deaths (26 Nauruans, 2 Chinese, 1 European).

5. **Health.**—Cases of the usual diseases known in the Pacific occur. Venereal disease is rare, but filariasis is common, and elephantiasis is occasionally met with. An area has been set apart for the segregation of lepers, and the latest methods of treatment are applied to cope with the disease. In 1932, there were 72 lepers in segregation. The treatment and control of leprosy have been very successful. Two hospitals are maintained on the island, one by the Administration for Nauruans, and one by the British Phosphate Commission for its employees. In common with other natives, the Nauruans are very susceptible to tuberculosis and influenza, and in 1921 an influenza epidemic caused the deaths of 230 Islanders. Dysentery, both amœbic and bacillary, is endemic. A regular anti-mosquito campaign is conducted. The usual steps have been taken by the

authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo a medical examination once a month. Baby clinics have been established to give help and advice to Nauruan mothers in regard to infant nurture.

6. **Education.**—On the 1st October, 1923, the Administration took over the education of the Nauruans and other native children, and native schools were established in five districts, and at the leper station. Previously education had been looked after by the Missions subsidized by the Government. A school for European children is presided over by a teacher on loan from the Education Department of Victoria who also supervises educational matters generally. The curriculum is similar to that of corresponding schools in Australia, and the teaching is, as far as possible, wholly in English. Education is compulsory between the ages of six and sixteen. After the termination of ordinary school attendance, twelve months are devoted to technical training. The children in attendance at school in 1932 numbered 17 Europeans and 353 Nauruans. The schools are closed on two afternoons a week in order that the children may attend the classes in religious instruction conducted at the Mission churches. Educational classes for adults have been inaugurated. Units of the Boy Scouts and Girl Guides (Nauruan) have been established on the island.

7. **Judiciary.**—The judicial power is vested in the Administrator in a Central Court and a District Court. The right of appeal is provided for.

8. **Religion.**—The London Missionary Society (Protestant) and the Sacred Heart of Jesus Mission (Roman Catholic) operate in Nauru.

9. **Phosphate Deposits.**—(i) *General.* From 1906 to 1919 the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony, administered by the Colonial Office). The quantity on Nauru has been estimated at not less than 50,000,000 tons, and the phosphate, as shipped, averages 85 per cent. to 88 per cent. of tricalcium phosphate.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it has workings) were bought by the British, Australian, and New Zealand Governments in 1919 for £3,500,000, the purchase money being contributed in the proportions of 42, 42, and 16 per cent. respectively. The Agreement of 2nd July, 1919, provides for the working of the deposits by the British Phosphate Commission of three members, one appointed by each Government; and the three countries are to receive the output in the same proportions of 42, 42, and 16 per cent.

(ii) *Nauru and Ocean Island Phosphate Industry.*—The following table gives particulars regarding exports of phosphate during the last five years:—

NAURU AND OCEAN ISLAND.—EXPORTS OF PHOSPHATE.

Year.		Total.	To Australia.	To New Zealand.
		Tons.	Per cent.	Per cent.
1927-28	.. ..	501,908	75.20	24.80
1928-29	.. ..	575,390	75.38	24.62
1929-30	.. ..	499,456	74.74	25.26
1930-31	.. ..	392,939	68.19	31.81
1931-32	.. ..	434,858	63.30	33.90

From Nauru alone, during the calendar year 1932, the export was 418,180 tons, of which 296,570 tons went to Australia, and 121,610 tons to New Zealand.

(iii) *Accounts of Commission.* A statement for the five years ended June, 1932, is given hereunder.

**NAURU AND OCEAN ISLAND.—SALES OF PHOSPHATE.**

Receipts from Sales of Phosphate, etc.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Receipts from Sales, etc. . .	666,992	736,420	648,165	584,738	599,727
F.o.b. cost, including interest on capital, sinking fund, etc.	659,122	698,056	645,987	584,244	599,209

The amount due by the British Phosphate Commission to the partner Governments for purchase money and other capital sums was £3,666,457 on 30th June, 1921, and at 30th June, 1932, this had been reduced to £3,326,302. The contribution to the sinking fund paid by the Commission provides for interest at 6 per cent. and extinction of the capital sum in 50 years from 1st July, 1920.

(iv) *Employees.* Apart from a limited number of Europeans and a few Pacific Islanders, the employees are Chinese engaged under a three years' contract. A few Nauruans are from time to time employed.

10. *Trade.*—Information regarding imports and exports for years 1928 to 1932 is appended herewith :—

**NAURU.—IMPORTS AND EXPORTS.**

Heading.	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Imports .. ..	240,229	101,692	143,416	108,729	95,739
Exports—	tons.	tons.	tons.	tons.	tons.
Phosphate .. ..	318,845	326,125	271,255	245,165	418,180
Copra .. ..	181	..	..	..	..

11. *Revenue and Expenditure.*—The revenue and expenditure of the Administration during the years 1928 to 1932 were as follows :—

**NAURU.—REVENUE AND EXPENDITURE.**

Heading.	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Revenue .. ..	19,903	19,936	18,992	16,440	20,235
Expenditure .. ..	18,267	17,860	15,532	16,903	15,435

Of the revenue in 1932, £9,064 was royalty on phosphate, £4,284 consisted of Customs receipts, £1,312 of capitation taxes, and £848 of harbour dues and shipping fees. The total credit balance on the 31st December, 1932, amounted to £25,668.

## CHAPTER XIV. PUBLIC FINANCE.

### A. GENERAL.

In early issues of the Official Year Book the plan was adopted of including in a single Chapter under the general heading of "Finance" the more important particulars available in connexion therewith. A departure was made in Year Book 25 by dividing the subject into separate Chapters with the two broad headings of "Public Finance" and "Private Finance". Notwithstanding that the financial transactions of Local Government Bodies and certain statutory Governmental Bodies come within the category of Public Finance, it is convenient to deal with these in a separate Chapter.

The subject of "Public Finance" has been dealt with in this Chapter under the two major divisions of Commonwealth Finance—including currency and coinage—and State Finance. The close financial relations between the Commonwealth and States particularly since the *Financial Agreement Act 1928* has been in operation, however, demand a combination of these two divisions under the heading of Commonwealth and State Finance.

Certain banking activities are conducted by both Commonwealth and State Governments, but as the services provided are essentially connected with the banking system of the Commonwealth they have been included in the section of the Private Finance Chapter relating to Banking. An exception has been made in the case of the Commonwealth Bank Note Issue Department, which is dealt with in sub-section "Currency and Coinage" of this Chapter.

### B. COMMONWEALTH FINANCE.

#### § 1. General.

**1. Financial Provisions of the Constitution.**—The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Chapter IV., "Finance and Trade," being sections 81 to 105 of the Constitution Act. Two other sections which have a most important bearing on questions of Commonwealth finance are sections 69 and 51.

Section 69 provides for the transfer to the Commonwealth from the States of certain specified departments, while section 51, in outlining the powers of the Federal Parliament, implies the transfer or creation of various other departments. Section 87 deals with the financial relations between the Commonwealth and the States. These matters have been treated in some detail in previous issues of the Official Year Book up to and including No. 12, and further reference to them will not be made here.

The Commonwealth Treasury issues annually a document entitled "The Treasurer's Statement of Receipts and Expenditure during the year ended 30th June," with which is incorporated the report of the Commonwealth Auditor-General for the year. This series of annual statements is the principal authority for the majority of the tables given herein.

**2. Accounts of Commonwealth Government.**—(i) *General.* The Commonwealth Government, like the State Governments, bases its accounts mainly upon three funds, the Consolidated Revenue Fund, the Trust Fund, and the Loan Fund. The last mentioned fund came into existence in the financial year 1911-12, but on the outbreak of war it became so important that it was treated in two parts—a General Loan Fund mainly for purposes of Public Works, and a War Loan Fund for purely war purposes. From the year 1923-24 inclusive, the loan expenditure on War Service Homes was debited against works loan expenditure. Previously such expenditure had been a charge on War Loans. Since the year mentioned, the transactions of the War Loan Fund consisted mainly of credits arising from repayments of expenditure during previous years.

(ii) *Revenue.* The following table shows particulars of Commonwealth Consolidated Revenue for the years 1927-28 to 1931-32 :—

## COMMONWEALTH REVENUE, CONSOLIDATED REVENUE FUND.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>PART I.—DEPARTMENTS AND SERVICES OTHER THAN BUSINESS UNDERTAKINGS—</b>	£	£	£	£	£
Taxation .. .. .	56,637,858	56,303,489	58,187,775	50,420,106	53,959,042
Other .. .. .	4,194,603	5,116,281	4,860,200	5,754,585	4,689,486
<b>Total, Part I.</b> ..	<b>60,832,461</b>	<b>61,419,770</b>	<b>63,047,975</b>	<b>56,174,691</b>	<b>58,648,528</b>
<b>PART II.—BUSINESS UNDERTAKINGS—</b>					
Postmaster-General's Department (a) .. .. .	12,349,422	12,848,400	13,590,607	12,875,800	12,390,815
Railways .. .. .	603,162	591,016	418,037	309,237	290,553
<b>Total, Part II.</b> ..	<b>12,952,584</b>	<b>13,439,416</b>	<b>14,008,644</b>	<b>13,185,037</b>	<b>12,681,368</b>
<b>PART III.—TERRITORIES</b> ..	<b>23,182</b>	<b>35,613</b>	<b>86,770</b>	<b>207,192</b>	<b>202,402</b>
<b>PART IV.—PAYMENTS TO OR FOR STATES—(b)</b>	..	..	..	..	..
<b>Total (b)</b> .. .. .	<b>73,808,227</b>	<b>74,894,799</b>	<b>77,143,389</b>	<b>69,566,920</b>	<b>71,532,298</b>

(a) Includes certain pension contributions and repayments, and differs on that account from the figures given on page 379. (b) Excludes Balance of Interest on States Debts (payable by the States). The interest payments made on behalf of New South Wales during 1930-31 and not recovered until 1931-32, have been excluded from the foregoing figures.

(iii) *Expenditure.* Particulars of Commonwealth expenditure from Consolidated Revenue Fund for the past five years are given in the subjoined table. Details of the expenditure from Loan Fund are given later.

## COMMONWEALTH EXPENDITURE, CONSOLIDATED REVENUE FUND.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>PART I.—DEPARTMENTS AND SERVICES OTHER THAN BUSINESS UNDERTAKINGS—</b>	£	£	£	£	£
War and Repatriation .. .. .	29,006,212	30,097,751	30,099,806	29,506,218	21,405,557
Other .. .. .	25,243,459	21,801,326	22,205,028	22,742,785	22,459,664
Balance (d) .. .. .	..	..	..	..	1,314,091
<b>Total, Part I.</b> ..	<b>54,249,671</b>	<b>51,899,077</b>	<b>52,304,834</b>	<b>52,249,003</b>	<b>45,179,312</b>
<b>PART II.—BUSINESS UNDERTAKINGS—</b>					
Postmaster-General's Department (a) .. .. .	12,393,850	12,690,072	13,025,358	12,994,870	12,196,307
Railways .. .. .	996,768	1,087,560	1,109,405	1,056,806	1,091,126
<b>Total, Part II.</b> ..	<b>13,390,618</b>	<b>13,777,632</b>	<b>14,134,763</b>	<b>14,051,676</b>	<b>13,287,433</b>
<b>PART III.—TERRITORIES</b> ..	<b>532,386</b>	<b>540,427</b>	<b>685,451</b>	<b>911,245</b>	<b>964,911</b>
<b>PART IV.—PAYMENTS TO OR FOR STATES—(b)</b>					
Other than Interest on States Debts .. .. .	11,085,789	11,036,638	11,489,344	(c)13,112,615	12,100,642
<b>Total (b)</b> .. .. .	<b>79,258,464</b>	<b>77,253,774</b>	<b>78,614,392</b>	<b>(c)80,324,539</b>	<b>71,532,298</b>

(a) Includes New Works and differs in some cases on that account from the figures given on a later page. (b) Excludes Balance of Interest on States Debts recoverable from States. (c) Excludes interest, etc., paid on behalf of New South Wales, and not recovered at 30th June, 1931. (d) Balance of receipts over ordinary expenditure appropriated for payment of Invalid and Old-age Pensions.

The receipts and expenditure on account of the Balance of "Interest on States' Debts" payable by the States to the Commonwealth under the "Financial Agreement Act" have been excluded from the foregoing and subsequent tables.

(iv) *Surplus Revenue.* Until the end of 1906-7, the balance of the Consolidated Revenue Fund was paid to the States. From 1907-8, until the abolition of the book-keeping provisions of the Constitution, the States received only three-fourths of the net Customs and Excise Revenue, and the balance of the Consolidated Revenue Fund was transferred to the Invalid and Old-age Pensions Trust Account and the Naval Defence Trust Account to provide for expenditure in subsequent years. A statement of surpluses and deficiencies for the past five years is appended hereto.

#### COMMONWEALTH SURPLUS REVENUE.

Year.	Surplus.	Deficiency.	Accumulated Surplus at end of Year.	Accumulated Deficit at end of Year.
	£	£	£	£
1927-28 .. ..	..	5,450,237	..	2,628,743
1928-29 .. ..	..	2,358,975	..	4,987,718
1929-30 .. ..	..	1,471,003	..	6,458,721
1930-31 .. ..	..	(a) 10,757,619	..	17,216,340
1931-32 .. ..	..	..	..	(b) 17,216,340

(a) Excludes Interest, etc., paid on behalf of New South Wales and not recovered at 30th June, 1931.

(b) See letterpress below.

The following payments amounting to £2,820,000 were made out of the surplus of £2,821,494 available at 30th June, 1927, and brought to account as expenditure during 1927-28:—Naval Construction and Defence Reserve, £2,250,000; Science and Industry Investigation, £250,000; Civil Aviation, £200,000; Purchase of Radium, £100,000; and Geophysical Survey of Australia, £20,000. The result of the ordinary transactions of the year 1927-28, omitting these special appropriations, was therefore a deficit of £2,630,237. The actual result of the transactions for the year 1931-32 was a surplus of £1,314,091 which was appropriated for the payment of invalid and old-age pensions in 1932-33.

## § 2. Consolidated Revenue Fund.

### Division I.—Nature of Fund.

The provisions made for the formation of a Commonwealth Consolidated Revenue Fund, and the means to be adopted for operating on the fund, are contained in sections 81, 82, and 83 of the Constitution.

### Division II.—Revenue.

1. *General.*—The following table furnishes details of the revenue from each source and the amount per head of population under each of the three main headings during the years 1927-28 to 1931-32:—

## COMMONWEALTH CONSOLIDATED REVENUE—SOURCES.

Source.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Taxation (a) .. .. .	56,637,858	56,303,489	58,187,775	50,420,106	53,959,042
Per head of population (d) ..	£9 1 10	£8 17 10	£9 1 6	£7 15 10	£8 5 5
Business Undertakings (a) .. ..	12,907,304	13,404,412	13,969,124	13,148,341	12,653,704
Per head of population (d) ..	£2 1 5	£2 2 4	£2 3 7	£2 0 7	£1 18 9
Other Revenue—					
Interest, etc. (c)—					
Loans to States for Soldier Settlement .. .. .	1,802,175	1,832,732	1,682,891	1,387,151	1,174,187
Other .. .. .	688,803	1,683,319	1,773,723	1,668,479	1,427,307
Coinage .. .. .	203,252	92,898	41,070	141,846	191,136
Defence .. .. .	132,877	117,614	103,351	79,005	50,510
Quarantine .. .. .	31,547	26,284	28,360	20,814	16,488
Territories (b) .. .. .	23,182	35,613	86,770	207,192	202,402
Patents, Trade Marks, etc. .. ..	44,258	44,917	58,300	54,429	48,798
Marine .. .. .	212,490	210,162	201,210	196,501	201,218
Pension Contributions .. .. .	55,439	44,297	48,924	43,932	33,747
Net Profit on Australian Note Issue	846,274	694,642	703,660	449,506	1,305,955
Bankruptcy .. .. .	..	15,695	32,086	44,395	41,943
Ex-enemy properties .. .. .	..	..	..	1,500,000	..
Export charges .. .. .	51,953	68,959	74,034	80,785	64,092
Miscellaneous .. .. .	170,815	319,772	152,102	124,438	162,369
Total .. .. .	4,263,065	5,186,898	4,986,490	5,998,473	4,919,552
Per head of population (d) ..	£0 13 8	£0 16 4	£0 15 7	£0 18 6	£0 15 1
Grand Total (c) .. .. .	73,808,227	74,894,799	77,143,389	69,566,920	71,532,298
Per head of population (d) ..	£11 16 11	£11 16 6	£12 0 8	£10 14 11	£10 19 3

(a) For details, see succeeding pages. (b) Exclusive of Railways and other items which appear elsewhere under their appropriate headings. (c) Excludes Interest on States' Debts payable by States. (d) Based on mean population of each financial year.

2. Taxation.—(i) Total Collections. (a) Amount. Collections under each heading for the years 1927-28 to 1931-32 are given below.

## TAXATION—TOTAL COLLECTIONS.

Heading.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Customs .. .. .	29,848,379	29,502,755	30,157,040	18,224,227	18,565,630
Excise .. .. .	11,598,351	11,555,816	11,617,351	10,070,846	9,840,166
Sales Tax .. .. .	..	..	..	3,472,854	8,425,067
Land Tax .. .. .	3,027,206	2,988,885	2,840,078	2,758,598	2,156,765
Income Tax .. .. .	10,165,175	9,841,496	11,120,029	13,604,374	13,481,982
Income Tax, Federal Officers' Salaries .. .. .	..	..	..	34,475	4,304
Estate Duties .. .. .	1,752,118	2,080,149	2,122,478	2,068,865	1,385,811
Entertainments Tax .. .. .	358,865	358,697	316,121	186,661	133,072
War Time Profits Tax .. .. .	Dr. 112,236	Dr. 24,309	14,678	Dr. 794	Dr. 33,755
Total Taxation .. .. .	56,637,858	56,303,489	58,187,775	50,420,106	53,959,042
Percentage on Total Revenue ..	76.7	75.2	75.4	72.5	75.4



(b) *Percentages of Total Collections.* The following table shows the percentage of the collections under each class of taxation on the total collections for the last five years :—

**TAXATION—PERCENTAGES ON TOTAL COLLECTIONS.**

Heading.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	%	%	%	%	%
Customs .. .. .	52.7	52.4	51.8	36.1	34.4
Excise .. .. .	20.5	20.5	20.0	20.0	18.2
Sales Tax .. .. .	..	..	..	6.9	15.6
Land Tax .. .. .	5.3	5.3	4.9	5.5	4.0
Income Tax .. .. .	18.0	17.5	19.1	27.0	25.0
Income Tax, Federal Officers' Salaries .. .. .	..	..	..	..	..
Estate Duties .. .. .	3.1	3.7	3.7	4.1	2.6
Entertainments Tax .. .. .	0.6	0.6	0.5	0.4	0.3
War Time Profits Tax .. .. .	<i>Dr.</i> 0.2	..	..	..	<i>Dr.</i> 0.1
Total .. .. .	100.0	100.0	100.0	100.0	100.0

(ii) *Customs Revenue.* (a) *Classified.* Particulars for the five years 1927-28 to 1931-32 are furnished in the following table :—

**COMMONWEALTH CUSTOMS REVENUE.—CLASSIFICATION.**

Classes.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Stimulants .. .. .	2,820,547	2,658,071	2,598,593	1,045,601	966,952
Narcotics .. .. .	2,374,659	2,412,859	3,069,426	2,875,840	3,088,656
Sugar .. .. .	16,797	11,654	11,029	674	392
Agricultural products	1,403,054	1,262,065	1,291,643	1,000,437	1,132,319
Apparel and textiles ..	5,802,848	5,362,694	5,154,257	2,069,610	1,656,599
Metals and machinery	5,284,993	4,949,249	4,758,415	1,594,769	655,363
Oils, paints, etc. ..	2,594,879	3,092,522	4,137,016	3,945,960	5,032,748
Earthenware, etc. ..	704,207	710,052	713,599	360,889	179,885
Drugs and chemicals ..	520,424	545,958	539,275	358,334	252,357
Wood, wicker and cane	1,594,825	1,583,145	1,802,580	379,328	205,288
Jewellery, etc. ..	845,099	870,130	1,028,151	557,262	254,821
Leather, etc. ..	1,124,091	743,948	526,056	256,498	355,588
Paper and stationery	760,448	762,357	878,800	732,888	420,551
Vehicles .. .. .	2,534,738	3,193,211	2,315,739	377,688	114,938
Musical instruments ..	364,326	267,824	138,329	13,855	4,518
Miscellaneous articles	1,040,080	998,785	1,116,340	704,833	452,290
Primage .. .. .	..	..	..	1,812,624	3,657,427
Other receipts .. .. .	62,364	78,231	77,792	137,137	134,938
Total Customs ..	29,848,379	29,502,755	30,157,040	18,224,227	18,565,630
Percentage on total value of imports of merchandise ..	20.3	20.6	23.1	30.1 (a)	42.2 (a)

(a) Based on the sterling value of imports. The corresponding percentage on the Australian currency value of imports was 26.5 per cent. in 1930-31 and 33.1 per cent. in 1931-32.

(b) States. The following table shows the Customs Duties collected in each State during the past five years:—

## COMMONWEALTH CUSTOMS DUTIES—COLLECTIONS, EACH STATE.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
New South Wales (a)	14,050,717	13,735,305	14,028,700	8,747,066	8,566,662
Victoria .. ..	8,664,279	8,776,892	8,877,033	5,554,343	6,018,159
Queensland ..	2,508,553	2,581,591	2,816,474	1,669,839	1,636,868
South Australia (b) ..	2,629,059	2,228,540	2,182,794	1,060,942	1,113,543
Western Australia ..	1,705,063	1,867,569	1,892,050	1,019,024	1,006,911
Tasmania .. ..	290,708	312,858	359,989	173,013	223,487
Total .. ..	29,848,379	29,502,755	30,157,040	18,224,227	18,565,630

(a) Includes Federal Capital Territory.

(b) Includes Northern Territory.

(iii) Excise Revenue. (a) Classified. Particulars concerning the amount of excise collected under each head during each of the years ending 30th June, 1928 to 1932, are given hereunder:—

## COMMONWEALTH EXCISE REVENUE.—CLASSIFICATION.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Beer .. ..	6,155,661	6,190,725	6,105,443	5,200,361	4,739,117
Spirits .. ..	1,881,040	1,756,957	1,856,951	1,248,700	1,337,262
Concentrated Grape Must .. ..	..	..	..	766	1,840
Tobacco .. ..	3,544,602	3,597,061	3,573,198	3,283,545	3,396,098
Petrol .. ..	..	..	70,065	315,582	328,073
Starch .. ..	4,737	134	..	..	..
Licences .. ..	12,311	10,939	11,574	11,460	11,736
Playing Cards ..	..	..	120	10,432	11,129
Matches .. ..	..	..	..	..	8,330
Cigarette Tubes ..	..	..	..	..	6,581
Total Excise ..	11,598,351	11,555,816	11,617,351	10,070,846	9,840,166

(b) States. Excise collections in each State for the past five years were as follow:—

## COMMONWEALTH EXCISE REVENUE.—COLLECTIONS, EACH STATE.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
New South Wales ..	5,784,633	5,887,511	5,775,428	4,753,246	4,200,426
Victoria .. ..	2,936,982	2,907,806	3,051,581	2,986,267	3,146,119
Queensland .. ..	1,064,242	1,088,231	1,080,622	989,918	1,014,614
South Australia (a) ..	989,022	843,303	819,269	569,938	706,898
Western Australia ..	713,542	715,205	763,365	651,668	662,514
Tasmania .. ..	109,930	113,760	127,086	119,809	109,595
Total .. ..	11,598,351	11,555,816	11,617,351	10,070,846	9,840,166

(a) Includes Northern Territory.

(iv) *Other Taxation.* (a) *Collections paid to Revenue.* The Commonwealth Government imposes other taxes as follows:—Land Tax, Estate Duty, Income Tax, War Time Profits Tax, Entertainments Tax and Sales Tax. The following statement shows particulars of the collections on account of each of the above taxes during the last ten years. Owing to certain accounting technicalities the figures herein differ slightly from those shown in subsequent sub-sections, wherein further particulars of the several taxes are given.

## OTHER TAXATION COLLECTIONS, AUSTRALIA.

Year.	Land Tax.	Estate Duty.	Income Tax.	War-time Profits Tax.	Entertainments Tax.	Sales Tax.
	£	£	£	£	£	£
1922-23 ..	2,018,876	1,172,935	12,904,518	286,757	629,802	..
1923-24 ..	2,030,127	1,320,911	11,057,555	70,646	622,460	..
1924-25 ..	2,519,711	1,381,051	11,136,344	Dr. 74,783	680,586	..
1925-26 ..	2,521,910	1,411,336	10,858,046	Dr. 77,491	460,326	..
1926-27 ..	2,615,900	1,362,351	11,126,278	Dr. 28,357	366,159	..
1927-28 ..	3,027,206	1,752,118	10,165,175	Dr. 112,236	358,865	..
1928-29 ..	2,988,885	2,080,149	9,841,496	Dr. 24,309	358,697	..
1929-30 ..	2,840,078	2,122,478	11,120,029	14,678	316,121	..
1930-31 ..	2,758,598	2,068,865	13,604,374	Dr. 794	186,661	3,472,854
1931-32 ..	2,156,765	1,385,811	13,481,982	Dr. 33,755	133,072	8,425,067

"Other Taxation" is assessed and collected in general by the Commissioner of Taxation. The organization comprises an office in each State, assessing tax-payers who are concerned with that State only, and a Central office assessing tax-payers whose interests are in more than one State. Taxes, however, may be paid to any office, so that the sums actually received by any office do not correspond to the assessments made by that office and frequently differ by very large amounts. Consequently the actual receipts by any State office, e.g., of income tax by the Queensland office, may include Central Office or New South Wales assessments, and, therefore, may not be a proper measure of income tax paid on account of income derived from Queensland.

The actual receipts by the various offices are the figures of necessity used by the Treasury for accounting purposes, and may be called the "Treasury" figures. These figures have been used in previous issues of the Year Book. In order to give a more significant picture of the taxation in States, these figures have been discarded, and in their place are given figures supplied by the Commissioner of Taxation, which refer strictly to the assessments made on account of the State specified. The totals of these figures do not quite agree with the total Treasury figures owing to certain technicalities of accounting, but the difference is small. The Taxation Office figures give a fair comparison between States, e.g., in taxation paid per head, but do not give the absolute measure of taxation, because of the Central Office collections, which include taxation on account of all States. These Central Office collections have not been analysed and allocated to the States. In the absence of precise information, it may be assumed as a fair rough approximation that Central Office collections may be divided among States in proportion to State office collections. It is probable, however, that a somewhat larger share is derived from the more populous States, New South Wales and Victoria.

(b) *Land Tax.* Commonwealth Land Tax was first imposed in 1910-11, when the rate of tax was 1/-30,000. on the first £1 increasing by 1/-30,000. for every additional £1 up to £75,000 where the increment of tax was 6d. and the average rate 3½d. The increment of tax of 6d. operated only on the excess of £75,000. The rate for an absentee is always 1d. more than for a resident, and the first £5,000 of value for an absentee bore a flat rate of 1d. per £1. In 1914-15, the rate of tax was amended by making the tax on £1, 1/-18,750d. increasing by 1/-18,750d. for each additional £1 reaching an increment of tax of 9d. at £75,000 with an average over the whole of such

field of 5d. per £1. The increment of tax applied to the excess over £75,000. Absentees correspondingly paid 1d. per £1 more than for a resident. A 20 per cent. increase which was imposed in 1918-19 was withdrawn in 1922-23 and a further reduction of 10 per cent. was granted in 1927-28. No further alteration was made in the rates until 1932-33, when the rates were reduced by 33½ per cent.

Land Tax receipts in each State and Central Office for the years 1927-28 to 1931-32 were as follows. The particulars shown differ slightly from those in a preceding sub-section :—

## LAND TAX RECEIPTS.

State, etc.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Central Office .. ..	1,008,913	995,745	983,380	942,467	702,124
New South Wales .. ..	1,001,973	1,004,751	940,107	919,494	695,587
Victoria .. ..	601,989	600,309	585,720	564,235	481,528
Queensland .. ..	64,757	64,113	46,079	62,380	52,586
South Australia .. ..	221,745	179,623	163,982	137,510	98,979
Western Australia .. ..	70,136	92,377	81,510	76,278	75,229
Tasmania .. ..	36,910	36,379	37,254	33,111	22,586
Total .. ..	3,006,423	2,973,297	2,838,032	2,735,475	2,128,619

(c) *Estate Duty.* The Commonwealth Estate Duty Act, 1914, and Estate Duty Assessment Acts impose a duty on the estates of deceased persons where the net value of the estate exceeds £1,000. The rate of tax where the value of the estate for duty does not exceed £2,000 is £1, increasing by one-fifth of £1 for each £1,000 or part thereof in excess of £2,000, the percentage being limited to £15. Where the estate passes to a widow, children or grand-children the duty is payable at two-thirds of the ordinary rate.

Particulars of the collections in each State and Central Office for the past five years are appended. Owing to certain accounting technicalities, these figures differ slightly from the Treasury returns given in a previous sub-section.

## ESTATE DUTY RECEIPTS.

State, etc.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Central Office .. ..	838,296	1,234,477	1,067,046	1,227,784	682,370
New South Wales .. ..	352,148	351,676	451,528	383,212	282,545
Victoria .. ..	310,459	295,448	395,502	270,632	296,104
Queensland .. ..	58,462	66,907	86,484	81,181	43,263
South Australia .. ..	114,902	69,850	69,023	45,455	57,912
Western Australia .. ..	52,513	43,927	35,325	30,031	20,159
Tasmania .. ..	19,998	17,275	9,432	16,465	14,164
Northern Territory .. ..	60	..	63	18	136
Total .. ..	1,746,838	2,079,620	2,114,403	2,054,778	1,396,653

The average dutiable value of estates, and the average amount of duty paid in 1931-32, were £6,209 and £282 respectively.

(d) *Income Tax.* The first Commonwealth Income Tax was levied during the year 1915-16. The legislation on the subject comprises the Income Tax Assessment Act No. 34 of 1915 and subsequent amending Acts. Full details as to the original Acts are given in Official Year Book No. 9. The following statement gives an index of the rate of tax up to and including the year 1931-32. The table gives an index of the rate of tax on the taxable amount of income, and does not take into account the variations in assessment due to changes in exemption and abatements and in the methods of assessment.

## INCOME TAX—INDEX OF RATE.

Years in which Rates were Amended.	Index of Rate of Tax.	Years in which Rates were Amended.	Index of Rate of Tax.
1915-16 .. ..	1,000	1925-26 .. ..	1,200
1916-17 .. ..	1,250	1927-28 .. ..	1,080
1918-19 .. ..	1,625	1929-30 .. ..	1,215 (a)
1920-21 .. ..	1,706	1930-31 .. ..	1,352 (a) (b)
1922-23 .. ..	1,535	1931-32 .. ..	1,420 (a) (b)
1924-25 .. ..	1,380	1932-33 .. ..	1,420 (a) (c)

(a) Estimated. (b) In addition, a super tax of 1s. 6d. in the £1 was imposed on all taxable income from property. (c) In addition, a super tax of 2s. in the £1 was imposed on all taxable income from property over and above the exemption of £250.

For the years 1929-30 and 1930-31 the rates of tax were graduated according to the amount of taxable income. In 1929-30 for example, no increase was made on taxable incomes up to £200, while increases of 10 per cent., 15 per cent., and 20 per cent. were imposed on higher taxable income groups.

A consolidated scale was struck for the revenue year 1931-32, designed to incorporate all existing rates to 1930-31, and increase the previous rates by 5 per cent. At the same time the super tax on property income was increased to 2s. in the £1.

The following table shows the receipts from Income Tax in each State and Central Office for the past five years. As previously mentioned, the totals differ from figures given in an earlier sub-section of this Chapter.

## INCOME TAX RECEIPTS.

State, etc.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Central Office .. ..	3,089,694	3,195,204	3,729,150	5,535,521	4,557,246
New South Wales .. ..	2,995,952	2,961,925	3,155,503	3,169,627	3,817,049
Victoria .. ..	2,406,399	1,924,543	2,225,040	2,656,205	2,537,581
Queensland .. ..	676,530	688,178	820,123	928,142	1,028,955
South Australia .. ..	517,912	588,127	512,076	607,411	728,218
Western Australia .. ..	306,109	317,445	466,016	467,223	584,208
Tasmania .. ..	111,996	121,969	136,818	189,588	205,717
Northern Territory .. ..	1,649	1,554	2,191	3,206	3,128
<b>Total .. ..</b>	<b>10,106,241</b>	<b>9,798,945</b>	<b>11,046,917</b>	<b>13,556,923</b>	<b>13,462,102</b>

In the above table differences in the rapidity of assessment and collection will affect the comparison from year to year. With this proviso, the State collections (excluding Central Office collections) relative to population at the beginning of the year specified may be given.

## INCOME TAX RECEIPTS PER HEAD OF POPULATION.

(EXCLUDING CENTRAL OFFICE COLLECTIONS.)

State, etc.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	s. d.	s. d.	s. d.	s. d.	s. d.
New South Wales ..	25 3	24 5	25 8	25 6	30 5
Victoria ..	27 11	22 0	25 2	29 10	28 2
Queensland ..	15 2	15 1	17 8	19 8	21 5
South Australia ..	18 2	20 4	17 8	20 11	25 0
Western Australia ..	15 11	15 11	22 8	22 4	27 9
Tasmania ..	10 9	11 7	12 11	17 7	18 8
Six States ..	22 10	21 4	23 0	25 0	27 5

Agreements made in 1923, between the Commonwealth and all the States except Western Australia, provide that the Commonwealth tax and the State tax shall be collected by an officer acting for the Commonwealth and State, the Commonwealth appointing the State Commissioner as Deputy Commonwealth Commissioner for the State under the Income Tax Assessment Act of the Commonwealth. Provisions are included relating to the transfer of officers, the accounting of receipts, and the division of expenses. A joint form of income tax return is to be used in cases where the income is derived in one State only. The respective agreements are to remain in operation for a period of five years, and thereafter until the expiration of not less than six calendar months, upon notice in writing by either party to the agreement.

In Western Australia an arrangement was made previously by which the Commonwealth undertakes the collection of the State income tax.

(e) *Entertainments Tax.* The tax on admission to entertainments operated from 1st January, 1917, when the rate imposed was 1d. for admissions exceeding 6d. but not exceeding 1s. For admissions exceeding 1s. the rate was 1d. for the first 6d. and  $\frac{1}{4}$ d. for each 6d. or part in excess of 1s. On 1st December, 1919, the rate of tax was amended to  $\frac{1}{4}$ d. on admissions of 6d., and 1d. where admission exceeded 6d. but did not exceed 1s.; otherwise the original rate operated. A further amendment, operative from 2nd October, 1922, provided for the payment of 1d. for admissions of 1s., but did not affect the rate on admissions exceeding 1s. The rates at present in operation, which became effective on 15th October, 1925, provide for the payment of a tax of 2 $\frac{1}{4}$ d. on admissions of 2s. 6d. with an additional  $\frac{1}{4}$ d. for each 6d. or part of 6d. by which the payments exceed 2s. 6d.

The amount of Entertainments Tax received in each State for the past five years is given below.

## ENTERTAINMENTS TAX RECEIPTS.

State, etc.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
New South Wales (a) ..	157,105	159,288	132,392	76,597	52,278
Victoria ..	114,401	119,311	100,951	63,541	47,620
Queensland ..	32,690	32,711	35,598	23,887	16,371
South Australia (b) ..	22,708	16,295	12,231	4,991	4,051
Western Australia ..	21,755	24,935	25,550	15,068	12,283
Tasmania ..	4,582	3,304	4,093	1,810	1,026
Total ..	353,241	355,844	310,815	185,894	133,629

(a) Includes Federal Capital Territory.

(b) Includes Northern Territory.

(f) *War Time Profits Tax.* This tax which came into force in September, 1917, provides for a tax on the amount by which the profits made in war time exceed the pre-war standard of profits. Further details regarding its application are given in Official Year Book No. 22, 1929. The net collections, after allowing for refunds, for the five years ended 30th June, 1932, are shown hereunder:—

## WAR TIME PROFITS TAX RECEIPTS.

State, etc.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Central Office .. ..	Dr. 42,413	5,650	1,566	Dr. 12,659	1,106
New South Wales .. ..	Dr. 54,355	Dr. 28,464	3,707	16,043	1,243
Victoria .. ..	10,033	Dr. 1,304	5,255	75	85
Queensland .. ..	Dr. 8,090	12,677	5,905	Dr. 1,077	Dr. 25
South Australia .. ..	Dr. 19,805	Dr. 17,446	Dr. 2,069	Dr. 3,331	..
Western Australia .. ..	Dr. 2,327	..	183	..	..
Tasmania .. ..	Dr. 3,593	Dr. 320	Dr. 1,099	..	..
<b>Total .. ..</b>	<b>Dr. 120,550</b>	<b>Dr. 29,207</b>	<b>13,448</b>	<b>Dr. 949</b>	<b>2,409</b>

(g) *Sales Tax.* The Sales Tax was imposed in August, 1930, as part of the Budget proposals for the year 1930-31. The rate of tax, which was fixed at 2½ per cent., was expected to yield £6.5 millions (£5 millions for the ten remaining months of the financial year) on an estimated taxable field of sales amounting to £260 millions for the year. The actual field for ten months proved to be £138 millions—equivalent to £157 millions for a full year—and realized net collections of £3,471,837. This lower total of taxable sales largely resulted from the volume of sales of exempted goods. The operation of the tax is controlled chiefly by a system of registration of taxpayers. All manufacturers and wholesale merchants who are the taxpayers under the Act in respect of goods sold in Australia must be registered with the Department.

The rate of tax was increased to 6 per cent. on taxable sales to operate during the year 1931-32.

Particulars of the net collections of Sales Tax and certain other details for each State for 1931-32 are included in the statement following. The figures regarding "Tax collected" represent collections during the period 1st July, 1931, to 30th June, 1932 adjusted on account of rebates of tax allowed in returns to taxpayers as deductions, while those relating to sales are in respect of the period 1st June, 1931, to 31st May, 1932.

## SALES TAX AND AMOUNT OF SALES, 1931-32.(a)

State or Territory.	Gross Taxable Sales.	Non-Taxable Sales.	Sales of Exempt Goods.	Net Amount of Sales on which Sales Tax was payable.	Tax Collected. (a)
	£'000.	£'000.	£'000.	£'000.	£
New South Wales .. ..	59,082	51,502	62,575	56,109	3,178,212
Victoria .. ..	52,659	47,107	63,472	49,681	2,869,956
Queensland .. ..	20,797	8,857	33,348	19,508	1,094,403
South Australia .. ..	11,741	6,685	14,475	11,057	619,959
Western Australia .. ..	9,075	3,196	11,281	8,401	503,099
Tasmania .. ..	3,240	2,623	4,437	2,960	165,052
Northern Territory .. ..	14	1	46	14	1,145
<b>Total .. ..</b>	<b>156,608</b>	<b>119,971</b>	<b>189,634</b>	<b>147,730</b>	<b>8,431,826</b>

(a) The difference between the amount of tax collected and 6 per cent. on net amount of sales on which tax was payable is due to rebates allowed as deductions from tax without the corresponding deduction from "Net Sales".

Of the total tax collections, £501,371 was collected by the Customs Department in respect of imported goods.

3. *Business Undertakings.*—(i) *Postal Revenue.* Particulars concerning this branch of revenue for each of the financial years from 1927-28 to 1931-32 are contained in the following table :—

## COMMONWEALTH POSTAL REVENUE.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Private boxes and bags ..	61,346	79,101	69,185	64,959	63,089
Commission—					
Money orders and postal notes ..	240,392	244,976	259,609	216,645	228,421
Telegraphs .. ..	1,422,179	1,447,256	1,390,012	1,152,918	1,085,960
Telephones .. ..	5,034,051	5,459,559	5,862,686	5,044,356	5,399,365
Postage .. ..	5,006,019	5,177,177	5,179,082	5,276,663	5,086,919
Radio receipts .. ..	45,030	22,177	166,847	155,672	168,197
Miscellaneous .. ..	495,125	383,150	623,666	327,891	331,200
<b>Total .. ..</b>	<b>12,304,142</b>	<b>12,813,396</b>	<b>13,551,087</b>	<b>12,839,104</b>	<b>12,363,151</b>

Further particulars of Postal Revenue are given in Chapter VI., Transport and Communication.

(ii) *Railway Revenue.* The Commonwealth Government is responsible for four lines—the Trans-Australian, the Central Australian, the North Australian and the Federal Capital Territory lines. The appended table shows the amounts paid into the credit of the Consolidated Revenue Fund on account of each of these railways for the past five years.

## COMMONWEALTH RAILWAY REVENUE.

Railway.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Trans-Australian ..	333,000	344,948	274,816	190,028	177,254
Central Australian ..	191,115	185,811	104,724	86,360	85,456
North Australian ..	68,844	50,259	31,291	28,986	23,548
Federal Capital Territory ..	10,203	9,998	7,206	3,863	4,295
<b>Total .. ..</b>	<b>603,162</b>	<b>591,016</b>	<b>418,037</b>	<b>309,237</b>	<b>290,553</b>

Further particulars are given in Chapter VI., part B, Railways.

4. *Other Sources of Revenue.*—The most important investments of the Commonwealth Government from which interest is derived are—Loans to States, General Trust Funds, Loans placed in London, Fixed Deposits with the Commonwealth and other Banks, and certain advances. In 1931-32 the total included interest on Loans to States for Soldier Land Settlement and for advances for Development and Migration and for miscellaneous purposes, payable by States; Interest on General Trust Fund Investments; Interest, Nauru Island Agreement and Interest from British Government on Development and Migration. As previously mentioned, the "Balance of Interest on States' Debts" payable by States under the Financial Agreement Act has not been included in the detailed statement.



## Division III.—Expenditure.

1. Nature of Commonwealth Expenditure.—The disbursements by the Commonwealth Government of the revenue collected by it fell naturally, under the "book-keeping" system, into three classes, viz. :—

- (a) Expenditure on transferred services.
- (b) Expenditure on new services.
- (c) Payment to States of surplus revenue.

Of these three, only the first two were actual expenditure, the last being merely a transfer, the actual expenditure being incurred by the States. In accordance with the provisions of the Constitution, the expenditure on transferred services was, under the "book-keeping" system, debited to the several States in respect of which such expenditure was incurred, while the expenditure on new services was distributed *per capita*. Surplus Commonwealth revenue was paid to the States monthly. Until the end of the year 1903-4, new works, etc., for transferred departments were treated as transferred expenditure, and were charged to the States on whose behalf the expenditure had been incurred. In subsequent years all such expenditure was regarded as expenditure on new services, and distributed amongst the States *per capita*. Under the arrangement, which superseded the "book-keeping" system, a specific subsidy of 25s. per head of population was made annually by the Commonwealth to the States, and there was no further debiting of expenditure to the several States. The States Grants Act (No. 4 of 1927) provided for the abolition of the *per capita* payments as from 30th June, 1927. From 1st July, 1928, the provisions of the temporary agreement between the Commonwealth and the several States under the *Financial Agreement Act* 1928 were operative, and on 1st July, 1929, the Commonwealth Government took over the debts of the States under this agreement which had been ratified by all Governments concerned. This agreement (except the temporary provisions) has been incorporated in Chapter I.

The *Financial Emergency Act* (No. 10, 1931) provided for a reduction of internal interest by 22½ per cent., and of 20 per cent. on salaries and wages of Government employees and on war pensions, and of 12½ per cent. on old-age pensions. More complete details regarding the steps taken to reduce expenditure and balance the budget are given in the Appendix. (See *Financial Crisis*.)

2. Details of Expenditure from Consolidated Revenue.—(i) *General*. The following table gives details of the expenditure from Consolidated Revenue exclusive of the "Balance of Interest on States' Debts" (recoverable from the States) during the last five years. Particulars for each Department, as constituted at 30th June, 1932, are stated hereinafter.

Administrative changes involving the amalgamation of certain departments and the transfer of some services from one department to another which were effected in April, 1932, are referred to in the paragraphs relating to the departments concerned.

## COMMONWEALTH EXPENDITURE FROM CONSOLIDATED REVENUE.

Heads of Expenditure.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Cost of Departments .. .. .	34,720,926	34,897,077	36,779,706	37,631,261	35,879,386
Miscellaneous—					
New Works .. .. .	229,626	274,730	245,536	74,445	832,622
War Services .. .. .	29,006,212	30,097,751	30,099,806	29,506,218	21,495,557
Payments to or for the States .. .. .	9,085,789	9,036,638	9,489,344	11,112,615	10,288,503
Special Defence Provision .. .. .	4,215,911	947,578	..	..	..
Federal Aid Roads .. .. .	2,000,000	2,000,000	2,000,000	2,000,000	1,812,139
Balance (c) .. .. .	..	..	..	..	1,314,091
<b>Total (a) .. .. .</b>	<b>79,258,464</b>	<b>77,253,774</b>	<b>78,614,392</b>	<b>80,324,539</b>	<b>71,532,298</b>
<b>Per head of population (b)</b>	<b>£12 14 5</b>	<b>£12 4 0</b>	<b>£12 5 3</b>	<b>£12 8 2</b>	<b>£10 19 3</b>

(a) Excludes Balance of Interest on States' Debts recoverable from States. (b) Based on mean population of each financial year. (c) Balance of receipts over ordinary expenditure appropriated for the payment of Invalid and Old-age Pensions.

\* For an exposition of the "book-keeping system" see Commonwealth Year Book No. 6, page 780.

The items included under the above general heads are referred to in some detail in the succeeding sub-sections. Particulars for each department do not include the expenditure on new works which is given in sub-section (iii) (a).

(ii) *Cost of Departments.*—(a) *Governor-General.* Section 30 of the Constitution enacts that, until the Commonwealth Parliament otherwise provides, there shall be payable out of the Consolidated Revenue Fund for the salary of the Governor-General an annual sum of ten thousand pounds, and a proviso is made that the salary of the Governor-General shall not be altered during his continuance in office. The total expenditure in connexion with the Governor-General and establishment for the five years 1927-28 to 1931-32 is as follows:—

## EXPENDITURE.—GOVERNOR-GENERAL AND ESTABLISHMENT.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Salary .. .. .	10,000	10,000	10,000	10,000	8,900
Governor-General's Establishment ..	10,152	21,576	15,329	11,064	9,802
Contingencies (a) .. .. .	6,361	7,118	5,395	3,099	1,885
Interest .. .. .	853	853	853	832	856
<b>Total .. .. .</b>	<b>27,366</b>	<b>39,547</b>	<b>31,577</b>	<b>24,995</b>	<b>21,443</b>

(a) Represents official services outside the Governor-General's personal interests, and carried out mainly at the instance of the Government.

(b) *Parliament.* Under this head have been grouped all the items of expenditure connected with the parliamentary government of the Commonwealth for the last five years. Although the administration of the Electoral Act and the conduct of elections comes within the functions of the Department of the Interior, the expenditure in connexion therewith is fundamentally incurred on account of the parliamentary government system, and for that reason is included herein.

## EXPENDITURE.—COMMONWEALTH PARLIAMENT.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Salaries of Ministers .. .. .	15,300	15,300	15,300	15,300	11,858
Allowances to Senators .. .. .	35,251	35,541	35,746	35,504	28,324
Allowances to Members of House of Representatives .. .. .	74,278	73,720	74,107	74,012	59,004
Officers, staff, contingencies, etc.	81,941	73,940	78,039	75,764	60,441
Repairs, maintenance, etc. .. .. .	4,459	6,179	5,561	5,327	6,275
Printing .. .. .	37,888	24,938	35,003	31,644	26,035
Travelling expenses of Members and others .. .. .	28,074	26,725	26,699	25,006	25,708
Electoral Office .. .. .	88,226	86,410	90,051	92,182	72,199
Election expenses .. .. .	875	118,831	106,932	1,717	91,054
Administration of Electoral Act ..	31,260	41,019	39,465	21,874	33,971
Miscellaneous .. .. .	22,378	55,160	48,798	42,936	38,455
<b>Total .. .. .</b>	<b>419,930</b>	<b>557,763</b>	<b>555,701</b>	<b>421,266</b>	<b>453,324</b>

In section 66 of the Constitution, provision is made for payment out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of Ministers of State, of an annual sum which, until Parliament otherwise provides, shall not exceed £12,000. This was modified in 1915-16, when the Minister of the Navy was given separate Cabinet rank. Allowances to Senators and Members of the House of Representatives are also provided for in the Constitution, section 48 of which specifies that until Parliament otherwise provides, each such allowance shall consist of £400 a year reckoned from the day on which the member takes his seat. During the second session of the Parliament in 1907 an Act was passed raising the annual allowance from £400 to £600, such increase to date from 1st July, 1907. In 1920, the salaries of members of both Houses were further increased to £1,000 per annum. By the Income Tax Salaries Act of 1930, the salaries of Ministers or presiding officers in either House of Parliament were subjected to a tax of 15 per cent., Chairman of Committees or Leader of the Opposition in either House, 12½ per cent., and other Members of either House, 10 per cent. The salaries and allowances of Ministers of the Crown and of members were reduced in July, 1931, by approximately 22½ per cent., and in September, 1932, by a further 5 per cent. (approximately), under the Financial Emergency Acts of 1931 and 1932 respectively.

(c) *Prime Minister's Department.* This Department was created during the financial year 1911-12. In addition to the services indicated below, this Department administers the external Territories of New Guinea, Papua, Nauru, and Norfolk Island. For convenience, particulars of expenditure on account of these Territories are shown hereinafter under that heading. The expenditure for the last five years is shown in the following table:—

## EXPENDITURE.—PRIME MINISTER'S DEPARTMENT.(a)

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Salaries, contingencies, and miscellaneous .. ..	£ 164,755	£ 153,373	£ 160,409	£ 240,746	£ 133,886
Audit Office .. ..	34,877	36,817	36,871	34,984	31,179
Rent, repairs, etc. .. ..	30,202	19,539	14,458	6,982	7,333
Public Service Board's Office .. ..	55,946	54,864	52,851	49,877	33,720
High Commissioner's Office .. ..	80,820	66,133	60,684	56,777	46,446
Commissioner for Australia in United States of America .. ..	16,808	13,134	15,516	11,228	6,086
Interest and Sinking Fund .. ..	784,120	907,499	976,126	968,907	962,051
Mail Service, Pacific Islands .. ..	52,051	49,750	51,989	47,848	42,262
Secretariat, League of Nations .. ..	23,994	25,758	28,078	30,762	42,656
Scientific and Industrial Research .. ..	269,629	19,451	8,664	8,165	1,925
Pensions and Superannuation .. ..	6,072	5,434	6,178	5,398	6,267
Total .. ..	1,519,274	1,351,752	1,411,824	1,461,674	1,313,811

(a) Excluding Territories, see page 387.

(d) *Department of the Treasury.* The sub-departments under the control of the Commonwealth Treasurer are the Treasury, the Pensions Department, the Taxation Office, the Supply and Tender Board, the Superannuation Fund Management Board and the Bureau of Census and Statistics which was transferred from the Department of Home Affairs on 13th April, 1932. Details of the expenditure of this Department for the last five years are given below.

## EXPENDITURE.—DEPARTMENT OF THE TREASURY.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Treasury .. .. .	53,418	54,548	52,869	51,775	48,642
Taxation Office .. .. .	452,738	428,765	440,102	493,793	455,516
Pensions Office .. .. .	117,071	83,891	86,940	91,278	80,008
Maternity Allowance Office .. .. .	15,297	16,464	15,028	15,002	13,882
Census and Statistics .. .. .	30,377	30,697	32,236	29,723	26,063
Coinage .. .. .	43,008	19,540	11,534	3,485	20,058
Rent, repairs, etc. .. .. .	16,371	15,672	13,801	8,320	8,259
Interest and Sinking Fund .. .. .	669	8,168	171,762	555,822	958,744
Exchange .. .. .	..	..	98,367	185,843	942,360
Miscellaneous .. .. .	78,511	89,495	48,537	47,958	307,584
<b>Departmental Expenditure</b>	<b>807,460</b>	<b>747,240</b>	<b>971,176</b>	<b>1,482,999</b>	<b>2,861,116</b>
Invalid and Old-age Pen- sions (a) .. .. .	9,681,837	9,991,299	10,633,979	11,549,828	10,978,633
Maternity Allowance .. .. .	678,920	661,520	642,990	630,652	378,022
Maintenance of persons in charitable institutions .. .. .	108,509	132,940	157,346	161,125	147,323
<b>Total .. .. .</b>	<b>11,276,726</b>	<b>11,532,999</b>	<b>12,405,491</b>	<b>13,824,604</b>	<b>14,365,094</b>

(a) Including £1,421,493 spent from Trust Funds in 1927-28.

(e) *Attorney-General's Department.* The Attorney-General is also Minister for External Affairs, but the expenditure of the latter department is included in that of the Prime Minister's Department. The creation of the Bankruptcy Administration in 1927-28 has been partly responsible for the increased expenditure over earlier years for the Attorney-General's Department. Details for the five years 1927-28 to 1931-32 are furnished hereunder:—

## EXPENDITURE.—ATTORNEY-GENERAL'S DEPARTMENT.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Attorney-General's Office .. .. .	17,337	24,390	19,691	19,709	15,126
Crown Solicitor's Office .. .. .	28,626	29,392	27,983	27,144	22,244
Salaries of Justices of High Court .. .. .	21,500	21,328	17,926	17,371	18,500
High Court expenses .. .. .	13,511	15,218	15,441	15,609	11,047
Court of Conciliation and Arbitration .. .. .	27,625	27,491	27,195	21,785	18,046
Public Service Arbitrator's Office .. .. .	4,368	4,465	5,471	1,740	2,678
Rent, repairs, etc. .. .. .	20,004	24,111	22,613	18,624	17,890
Patents, Trade Marks, etc. .. .. .	52,671	51,477	56,301	54,136	51,040
Investigation Branch .. .. .	10,769	10,951	11,896	12,175	9,712
Bankruptcy .. .. .	3,102	20,941	24,909	32,586	28,521
Miscellaneous .. .. .	32,184	16,981	16,065	12,320	1,724
<b>Total .. .. .</b>	<b>231,697</b>	<b>246,745</b>	<b>245,491</b>	<b>233,199</b>	<b>196,528</b>

(f) *Department of the Interior.* In April 1932, the Departments of Home Affairs and Works were abolished, and the services under the control of these departments were assumed by a new Department styled the Department of the Interior. The Bureau of Census and Statistics, formerly under the Department of Home Affairs, was, however, transferred to the Department of the Treasury. The Northern and Federal Capital

Territories and the Commonwealth Railways, which are administered by the Department of the Interior are, for convenience, included under Territories and Railways respectively (sub-sections (ii) (l) and (m) hereinafter). The Electoral Office was previously attached to the Department of Home Affairs, but, as was the case in previous years, the expenditure of this branch is included under Parliament, in sub-section (ii) (b) *ante*.

Particulars of the expenditure for the past five years on services under the control of this department are as follows:—

**EXPENDITURE.—DEPARTMENT OF THE INTERIOR.(a)**

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Salaries, Contingencies and Miscellaneous—					
Administrative ..	146,900	146,973	119,573	140,975	85,904
Meteorological Bureau	36,103	35,935	36,199	36,040	30,733
Solar Observatory ..	7,207	7,585	5,497	5,486	4,369
Forestry Branch ..	6,527	7,116	7,509	7,253	6,102
Rent, Repairs and Maintenance ..	23,364	30,819	25,944	10,693	12,335
Pensions and Retiring Allowances ..	8,018	8,643	10,315	12,530	11,955
Petroleum Prospecting ..	..	..	18,800	10,000	1,000
Interest ..	281,494	351,853	419,244	417,855	404,901
Sinking Fund ..	32,810	36,331	42,790	27,100	46,740
All Other ..	76,751	15,749	7,407	22,936	2,687
<b>Total ..</b>	<b>619,174</b>	<b>641,004</b>	<b>693,278</b>	<b>690,868</b>	<b>606,806</b>

(a) Excludes Territories, Railways and Electoral Office.

(g) *Defence.* The expenditure in connexion with defence for the last five years was as follows:—

**EXPENDITURE.—DEPARTMENT OF DEFENCE.**

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
<b>Defence—Chief Office ..</b>	<b>24,182</b>	<b>25,821</b>	<b>23,483</b>	<b>22,809</b>	<b>19,447</b>
Military ..	1,284,886	1,270,443	1,455,241	1,364,187	1,180,128
Audit (Proportion) ..	6,272	6,686	9,647	6,302	4,977
Pensions and Retiring Allowances (a) ..	16,551	20,353	23,899	37,336	32,909
Rent, Repairs, etc. ..	28,412	34,577	47,526	25,050	23,657
Interest and Sinking Fund ..	221,702	229,965	238,406	231,449	237,715
Exchange ..	..	..	..	4,827	7,869
Miscellaneous ..	23,424	24,396	24,683	5,766	13,302
<b>Total ..</b>	<b>1,605,429</b>	<b>1,612,241</b>	<b>1,822,885</b>	<b>1,697,717</b>	<b>1,520,004</b>
<b>Navy—Chief Office ..</b>	<b>83,623</b>	<b>83,257</b>	<b>80,537</b>	<b>66,788</b>	<b>50,009</b>
Naval ..	1,930,861	1,808,247	1,946,418	1,610,590	1,326,357
Audit (Proportion) ..	2,465	2,462	6,729	2,557	2,004
Pensions and Retiring Allowances (a) ..	2,544	2,451	3,807	3,283	3,403
Rent, Repairs, etc. ..	40,591	43,720	37,166	24,624	15,539
Interest and Sinking Fund ..	74,291	77,189	83,802	81,012	82,078
Exchange ..	..	..	..	38,698	24,153
Miscellaneous ..	17,842	17,117	17,074	7,221	3,679
<b>Total ..</b>	<b>2,152,217</b>	<b>2,034,443</b>	<b>2,174,533</b>	<b>1,834,773</b>	<b>1,507,222</b>
<b>Air Services—</b>					
Civil Branch—Pay, etc. ..	15,285	17,285	20,881	20,909	17,353
Development of Civil Aviation ..	49,985	50,990	75,332	108,787	101,266
<b>R. A. A. F.—</b>					
Pay, etc. ..	199,060	227,325	237,305	230,301	101,719
General Contingencies ..	74,273	79,346	82,913	69,518	66,844
General Stores and Maintenance ..	37,673	32,087	80,062	53,470	54,898
Rent, Repairs, etc. ..	14,176	13,754	16,036	15,802	14,045
Interest and Sinking Fund ..	20,944	24,752	28,543	27,877	28,157
Exchange ..	..	..	..	11,170	2,440
Miscellaneous ..	15,877	12,284	13,160	9,338	6,015
<b>Total ..</b>	<b>428,173</b>	<b>457,823</b>	<b>555,132</b>	<b>547,172</b>	<b>482,737</b>
<b>Grand Total ..</b>	<b>4,185,819</b>	<b>4,104,507</b>	<b>4,552,550</b>	<b>4,079,662</b>	<b>3,500,963</b>

(a) Includes Superannuation.

(h) *Trade and Customs Department.* Under this head have been included the expenditure of all the sub-departments under the control of the Minister for Trade and Customs, in addition to the amounts payable as bounties and the expenses in connexion therewith. Particulars for the five years 1927-28 to 1931-32 are given in the following table:—

## EXPENDITURE.—TRADE AND CUSTOMS DEPARTMENT.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Chief Office .. ..	69,029	70,814	73,855	67,708	49,771
Customs—Ordinary .. ..	563,055	569,168	565,038	545,598	435,612
Audit (proportion) .. ..	10,045	9,421	2,323	10,332	9,052
Pensions and Superannuation .. ..	32,922	35,595	36,952	38,781	37,571
Rent, Repairs, etc. .. ..	19,265	14,387	11,906	5,169	4,240
Bounties .. ..	890,574	532,564	517,582	446,344	410,173
Interest and Sinking Fund .. ..	34,312	34,356	34,405	33,288	34,555
Miscellaneous .. ..	14,756	10,732	13,928	9,384	3,542
<b>Total .. ..</b>	<b>1,633,958</b>	<b>1,277,037</b>	<b>1,255,989</b>	<b>1,156,604</b>	<b>984,516</b>

(i) *Health Department.* This department came into existence in the financial year 1921-22. The Minister for Health also administers the Department of Repatriation, and the expenditure on Repatriation is included under War Services. Details of expenditure for the last five years are as follows:—

## EXPENDITURE.—HEALTH DEPARTMENT.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-22.
	£	£	£	£	£
Central Administration ..	23,769	22,791	19,216	27,498	22,437
Salaries, Contingencies, etc.	91,746	93,202	92,743	88,790	72,703
Interest .. ..	12,784	13,394	13,749	13,680	14,069
Rent and repairs .. ..	23,914	21,126	17,537	8,917	4,337
Subsidy, Cattle Tick Control .. ..	44,832	54,972	57,318	53,066	44,450
Miscellaneous .. ..	177,292	85,627	74,670	29,346	16,815
<b>Total .. ..</b>	<b>374,337</b>	<b>291,112</b>	<b>275,233</b>	<b>221,297</b>	<b>174,811</b>

During 1927-28, a sum of £100,000 expended on the purchase of radium was included in the item "Miscellaneous." Other items included in "Miscellaneous" are subsidies in connexion with the control of venereal diseases and tuberculosis, maternal and infant hygiene, Health Research Council, and grants in aid of research. etc.

(j) *Department of Commerce.* The Department of Commerce was created in April, 1932, by the amalgamation of the Departments of Markets and of Transport. Commonwealth Railways, formerly administered by the Minister for Transport, were transferred to the control of the Minister for the Interior on the amalgamation in 1932.

Some details relating to the creation of the Departments of Markets and Transport are given in Official Year Book No. 25, pp. 295-6. Particulars of the expenditure of the Department of Commerce for the past five years are given below.

## EXPENDITURE.—DEPARTMENT OF COMMERCE.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Salaries, Contingencies and Miscellaneous—	£	£	£	£	£
Administrative ..	69,598	68,147	71,376	70,306	61,910
Marine ..	280,225	270,950	263,901	237,103	193,934
Administration of Commerce Act ..	29,961	30,581	35,648	45,772	45,055
Export Control—					
Canned Fruits ..	4,506	3,819	4,990	6,500	5,994
Dried Fruits ..	27,623	42,753	46,152	38,779	27,167
Dairy Produce ..	21,294	22,374	22,898	24,309	24,410
Assistance Marketing					
Primary Produce ..	..	50,000	50,000	31,000	19,500
Rent, Repairs, Maintenance, &c. ..	9,203	10,859	7,419	5,071	7,338
Pensions and Retiring					
Allowances ..	4,007	4,195	5,585	6,847	6,466
Interest ..	72,760	86,498	93,040	96,174	132,130
Sinking Fund ..	7,857	8,685	9,210	6,010	26,790
All Other ..	19,793	15,980	36,088	32,543	31,278
<b>Total ..</b>	<b>546,827</b>	<b>614,841</b>	<b>646,307</b>	<b>600,414</b>	<b>581,972</b>

(k) *Postmaster-General's Department.* Details of the expenditure of this Department for the last five years are given in the table hereunder :—

## EXPENDITURE.—POSTAL DEPARTMENT.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Chief Office ..	77,469	80,440	87,395	93,845	69,637
Postal Department (ordinary) ..	9,811,847	9,831,131	9,847,327	9,381,512	7,792,014
Wireless ..	25,041	37,903	69,800	74,790	72,422
Audit (proportion) ..	11,149	11,593	12,150	12,930	9,700
Pensions and retiring allowances ..	102,173	110,605	110,032	110,480	103,830
Superannuation ..	93,431	112,546	136,095	156,822	160,739
Rents, repairs, etc. ..	151,109	127,855	129,145	68,989	61,471
Interest on transferred properties ..	290,262	290,262	290,262	290,262	290,262
Interest on Commonwealth Securities ..	1,194,453	1,403,069	1,619,995	1,648,754	1,598,759
Sinking Fund on Commonwealth Securities ..	475,009	518,060	560,125	742,569	779,699
Exchange ..	..	..	..	300,115	724,708
Miscellaneous ..	161,033	157,261	163,032	113,802	90,547
<b>Total ..</b>	<b>12,392,976</b>	<b>12,680,725</b>	<b>13,025,358</b>	<b>12,994,870</b>	<b>11,753,788</b>

(l) *Railways.* In 1928-29 the Commonwealth Railways were transferred from the Department of Works and Railways to the Department of Markets and Transport. In April, 1932, the administration was placed under the Department of the Interior. The expenditure on railways for the past five years is shown below as distinct from the expenditure of the other services controlled by the latter Department.

## EXPENDITURE.—COMMONWEALTH RAILWAYS.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Trans-Australian .. ..	286,175	301,821	294,090	251,577	195,454
North Australian .. ..	67,967	54,697	56,155	55,606	45,733
Central Australian .. ..	165,306	198,213	198,108	157,076	111,937
Federal Capital Territory .. ..	9,588	10,504	8,458	6,344	5,035
Interest .. ..	407,646	462,728	490,491	500,319	477,801
Sinking Fund .. ..	47,411	50,519	52,479	37,789	58,158
Exchange .. ..	..	..	..	38,281	136,366
Miscellaneous .. ..	12,675	9,278	9,624	9,814	9,726
<b>Total .. ..</b>	<b>996,768</b>	<b>1,087,560</b>	<b>1,109,405</b>	<b>1,056,806</b>	<b>1,040,210</b>

Additional details of the financial operations of the Commonwealth Railways are given in Chapter VI., "Transport and Communication."

(m) *Territories.* The following table shows the expenditure on account of territorial services for the past five years. The internal territories are administered by the Department of the Interior, while the Prime Minister's Department controls the external territories. The expenditure has been grouped in one table for convenience:—

## EXPENDITURE.—TERRITORIES.

Details.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
<b>Internal—</b>					
North and Central Australia (a) .. ..	132,758	145,380	138,925	(b)149,152	(b)161,271
Federal Capital Territory (a) .. ..	286,879	251,348	365,813	650,827	661,545
<b>External—</b>					
Papua .. ..	58,947	57,411	49,853	52,969	47,857
New Guinea .. ..	13,490	13,346	12,911	8,054	2,947
Norfolk Island .. ..	4,000	4,000	4,000	4,000	3,500
<b>Total .. ..</b>	<b>496,074</b>	<b>471,485</b>	<b>571,502</b>	<b>865,002</b>	<b>877,120</b>

(a) Exclusive of Railways. (b) Northern Territory.

(iii) *Miscellaneous.* (a) *New Works.* The expenditure on additions, new works, etc., during the last five years was as follows:—1927-28, £229,626; 1928-29, £274,730; 1929-30, £245,536; 1930-31, £74,445; and 1931-32, £83,622.

In the latter year, expenditure on New Works was not made from Loan Funds, the money being provided from revenue. The principal items of expenditure were—River Murray Waters Act, £142,000; War Service Homes, £33,000; Defence—Military and Munitions, £28,237; Naval, £1,691; Air Services, £11,664; Railways, £75,000; Postal, etc., Works, £580,000; Federal Capital Territory, £60,500; and Northern Territory, £16,000.

(b) *War Services.* Full details concerning the expenditure from Consolidated Revenue upon War and Repatriation will be found in a later sub-section.



### Division IV.—Payments to or for the States.

References to the payments by the Commonwealth to or for the States under the various Acts were made in earlier issues of the Official Year Book, while particulars relating to the payments under the *Financial Agreement Act 1928*, are given on pages 21 to 32 of Chapter I. of this volume. The total payments by the Commonwealth in this connexion up to 30th June, 1932, amounted to £251,080,000, details of which are given in the table following.

#### PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	All States.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1900-01 to 1909-10 (a) ..	27,606	19,815	8,894	6,148	8,728	2,602	73,793
1910-11 to 1926-27 (b) ..	41,634	31,341	15,184	9,925	6,892	4,368	109,344
1927-28 to 1931-32 (c) ..	16,450	11,712	6,218	4,162	2,860	1,483	42,885
Special Grants (d) ..	..	..	..	2,530	4,956	3,010	10,496
Grants for Road Construction, 1922-23 to 1931-32	3,840	2,511	2,585	1,569	2,619	688	13,812
Unemployment Relief, 1930-31 (e) .. ..	194	332	73	45	65	41	750
<b>Total</b> .. ..	<b>89,724</b>	<b>65,711</b>	<b>32,954</b>	<b>24,379</b>	<b>26,120</b>	<b>12,192</b>	<b>251,080</b>

(a) Under Section 87 of the Commonwealth Constitution. (b) Under the several Surplus Revenue Acts. (c) Under *Financial Agreement Act 1928*. (d) Under various State Grants Acts. (e) Expenditure by Commonwealth on Unemployment Relief Works in the several States.

For the year ended 30th June, 1932, the payments made to or for each State are given below.

#### PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES, 1931-32.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Contributions towards Interest on State Debts ..	2,917,411	2,127,159	1,096,235	793,816	473,432	266,859	7,584,912
Sinking Fund on State Debts (a) .. ..	448,142	251,994	154,649	146,627	118,946	33,233	1,153,591
Special Grants .. ..	..	..	..	1,000,000	300,000	250,000	1,550,000
<b>Total</b> .. ..	<b>3,365,553</b>	<b>2,379,153</b>	<b>1,250,884</b>	<b>1,850,443</b>	<b>892,378</b>	<b>550,092</b>	<b>10,288,503</b>

(a) Paid to National Debt Sinking Fund.

In addition to the foregoing, the Commonwealth contributed £1,812,139 during the year in respect of Federal Aid Roads.

### § 3. Trust Funds.

The Trust Fund balances on 30th June, 1932, amounted to £16,047,626, as compared with £13,372,963 for the corresponding date in the year 1931.

### § 4. Commonwealth Loan Funds and Public Debt.

1. *General.*—Although it was not until 1915 that the Federal Government came into the loan market as a borrower, there had previously existed a Commonwealth Public Debt which included several items, such as the balance of the debt taken over from South Australia and the amount owing to the States for transferred properties. In view of the large expansion of the Public Debt, and its present importance in Commonwealth public finance, the different items are treated seriatim in the following sub-sections:—

2. *Loans taken over from South Australia.*—The first portions of the debt were contracted at the beginning of 1911, when the Commonwealth assumed responsibility for the payment of interest on transferred properties (further dealt with in sub-section 4) and for the administration and the liabilities of the Northern Territory and the

Port Augusta—Oodnadatta Railway. At 30th June, 1911, the debt on account of the former was £3,657,836, and on account of the latter, £2,274,486—a total of £5,932,322. As the securities fall in they are redeemed by the Commonwealth Government, the money required being taken from the Loan Fund. At 30th June, 1932, the debt outstanding amounted to £1,283,070, of which £362,024 was on account of the Northern Territory, and £921,046 on account of the railway.

3. Loan Fund for Public Works, Redemptions, etc.—Up to the year 1911 the Commonwealth Government had met its public works expenditure out of revenue. In that year, however, in view of the heavy prospective cost of the Trans-Australian Railway and the Federal Capital Territory, it was decided to institute a Loan Fund similar to those of the States. The initiation of this fund was greatly assisted by the fact that the Treasury at that time held a large quantity of gold, principally on behalf of the Australian Notes Account. Up to 30th June, 1914, the money required for loan expenditure was obtained mainly from this source at 3½ per cent., and inscribed stock of an equivalent value was created. Since the outbreak of war, the money required for the Loan Fund has been mainly obtained by the issue of Treasury Bills and other securities issued in London and New York as well as in Australia. In 1931–32, all expenditure on works was made from revenue. The expenditure from loan fund for the year comprised Wheat Bounty, £3,296,464 and Unemployment Relief, £153,873—a total of £3,450,337.

## COMMONWEALTH LOAN EXPENDITURE FOR WORKS.

Particulars.	1926–27.	1927–28.	1928–29.	1929–30.	1930–31.	Total to 30th June, 1931.
	£	£	£	£	£	£
Immigration (a) .. ..	248,104	261,353	132,815	57,705	..	1,680,835
Shipbuilding Yards and Docks .. ..	..	..	..	..	..	733,711
Ship Construction .. ..	..	Cr. 163,216	Cr. 86,784	Cr. 165,000	Cr. 165,000	8,394,060
Subscriptions to Capital of Commonwealth Oil Refinery .. ..	..	..	..	..	..	343,751
Federal Capital Territory Works, Services, and Acquisition of Land .. ..	1,671,753	998,507	1,193,500	253,988	263,077	7,994,328
North Australia Commission .. ..	8,400	22,900	40,800	23,000	16,103	111,203
Drill Halls, Stores, Barracks, etc. .. ..	18,158	26,984	33,014	20,204	458	427,084
Rifles and Ammunition Reserve .. ..	..	..	..	..	..	375,300
Other Military Services .. ..	12,978	9,831	231	1,000	..	101,959
Naval Bases, Depots, etc. .. ..	127,016	62,303	36,907	93,230	6,229	1,466,556
Fleet Construction .. ..	..	..	..	..	..	355,397
Other Naval Services .. ..	24,000	..	..	..	..	71,300
Air Services—						
R.A.A.F. .. ..	140,364	103,227	40,530	32,740	8,766	473,010
Civil Aviation .. ..	5,516	3,916	..	..	13,596	53,773
Buildings and Works, Munitions Production .. ..	93,098	101,308	92,513	83,127	38,467	1,185,852
Other Munitions Supply Services .. ..	2	..	..	..	..	1,150
Lighthouses and Lighthouse Services .. ..	24,927	23,475	17,673	18,520	89,500	643,900
River Murray Waters Act .. ..	209,500	250,000	250,000	200,000	122,000	2,195,625
Telegraph and Telephone Construction .. ..	3,627,619	3,357,432	2,775,991	2,537,489	1,248,197	30,024,968
Post Office Buildings and Land .. ..	317,706	296,931	227,397	224,186	38,190	3,398,382
Wireless .. ..	50,462	50,564	482	10,037	1,727	356,608
Serum and Health Laboratories .. ..	4,785	4,753	10,082	3,748	..	75,220
Wire and Wire-netting .. ..	250,000	80,000	230,838	50,000	..	610,838
Railways—						
Trans-Australian .. ..	88,199	54,896	48,415	64,622	30,387	6,662,298
North Australian .. ..	398,764	425,875	79,092	20,097	910	1,597,559
Central Australian .. ..	399,885	731,388	747,894	170,911	30,185	2,477,853
Federal Capital Territory .. ..	20,500	4,424	3,291	365	175	28,755
Grafton—South Brisbane .. ..	1,000,000	1,202,000	675,000	586,000	68,000	4,371,000
Other Expenditure .. ..	..	..	..	..	..	200,000
War Service Homes (b) .. ..	673,351	752,583	1,673,451	999,964	154,906	7,314,524
London Offices .. ..	..	..	..	..	..	880,190
Acquisition of Properties not elsewhere included .. ..	833	655	987	769	10,653	134,544
Miscellaneous .. ..	Cr. 11,288	..	20,000	7,500	14,500	432,371
<b>Total .. ..</b>	<b>9,404,632</b>	<b>8,662,089</b>	<b>8,244,119</b>	<b>5,294,202</b>	<b>1,991,026</b>	<b>85,023,904</b>

(a) Exclusive of Loans to States for Immigration Purposes. (b) Prior to 1923–24, expenditure was made from War Loan Fund. The total expenditure to 30th June, 1931, was £20,359,907.

4. **Properties Transferred from States.**—At the time of federation, when the Commonwealth took over the control of several departments previously administered by the States, a large amount of property was handed over to the Commonwealth Government. A valuation was made, with results set out in detail in Official Year Book No. 14, page 694, and the Commonwealth paid interest at the rate of 3½ per cent. to the States on account of all transferred properties.

The terms of the financial agreement between the Commonwealth Government and the Governments of the several States provided, *inter alia*, that, as a temporary measure, the Commonwealth Government would for the period of two years from 1st July, 1927, to 30th June, 1929, pay to each State interest at the rate of 5 per cent. per annum on the agreed value of transferred properties as follows :—New South Wales, £4,788,005; Victoria, £2,302,862; Queensland, £1,560,639; South Australia, £1,035,631; Western Australia, £736,432; and Tasmania, £500,754; a total of £10,924,323.

From 1st July, 1929, the Commonwealth Government assumed all liability for so much of the Public Debt of the States maturing in London bearing interest at the rate of 5 per cent. per annum as is equivalent to the agreed value of the transferred properties shown above. The Commonwealth Government will receive the freehold or equivalent title to the transferred properties consisting of land or interests in land, and all liability of the Commonwealth to the State in respect of transferred properties is extinguished from that date.

5. **War Loan from the Imperial Government.**—On the outbreak of the European war in 1914, the Commonwealth Government obtained a loan from the Imperial Government for the purpose of financing the prospective large military expenditure. At first, the arrangement was that the Imperial Government should advance the sum of £18,000,000. Subsequently further loans totalling £31,500,000 were negotiated. In addition to this capital indebtedness of £49,500,000, a further sum of £42,696,500 was due to the British Government for the maintenance of Australian troops.

Early in 1921 an arrangement was concluded with the Imperial Government, by means of which almost the entire debt (upwards of £92,000,000) was consolidated. The Commonwealth Government undertook to extinguish the debt in about 35 years by annual payments representing 6 per cent. on the original debt, providing for interest at £4 18s. 4d. per cent., and a sinking fund of £1 1s. 8d. per cent. The Imperial Government agreed to suspend for 1931–32 and 1932–33 the repayment of principal moneys due under the Funding arrangement, and under the “Hoover Plan,” the payment of interest for the year 1931–32 was also suspended, the suspended payments under the “Hoover Plan” being liquidated by ten equal annuities running from 1st July, 1933, at a rate of interest to be determined. These annuities are additional to the usual annual payments. The adoption of these proposals represents a saving to the Commonwealth Budget of £6,145,000, including exchange, for the year 1931–32. The principal outstanding on 30th June, 1932, was £79,724,220.

6. **Flotation of War Loans in Australia.**—In addition to the advances from the Imperial Government, the Commonwealth Government raised large amounts of money in Australia. Full details of the seven War Loans are given in Official Year Book No. 14.

7. **Loan Raisings, 1931–32.**—Apart from the Internal Conversion Loans, by which the interest rate on all Commonwealth and State securities was reduced by 22½ per cent., the loan transactions during 1931–32 were confined to the issue and renewal of short-term Treasury Bills and Debentures. Some details relative to the conversion loan are given in the Appendix (see under “Financial Crisis”), while particulars of the short-term debts of the Commonwealth and States are given in a subsequent paragraph.

8. Public Debt for Commonwealth Purposes.—(i) *Total Debt.* Separate consideration has already been given to the items composing the Public Debt. The table appended shows the debt of the Commonwealth (excluding that of the States) at 30th June, 1932.

## PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1932.

Particulars.	Maturing in	Maturing in	Maturing in	Total. (a)
	London.	New York.	Australia.	
	£ Stg.	£ Gold.	£ Aust.	£
<b>War Debt—</b>				
Stock, Bonds, etc. . . . .	11,020,160	..	221,901,285	232,921,445
Short dated Treasury Bills . . . .	..	..	510,700	510,700
Indebtedness to United Kingdom Govern- ment . . . . .	79,724,220	..	..	79,724,220
<b>Total</b> . . . . .	90,744,380	..	222,411,985	313,156,365
Deduct advances to States for Soldier Land Settlement, etc. . . . .	..	..	-27,096,629	-27,096,629
<b>Total War Debt</b> . . . . .	90,744,380	..	195,315,356	286,039,736
<b>Works and other Purposes—</b>				
Short dated Treasury Bills and Debentures	10,220,160	..	5,819,300	16,039,460
Other Treasury Bills . . . . .	..	..	8,797,000	8,797,000
Stock, Bonds, etc. . . . .	56,623,255	17,115,997	12,855,087	86,594,339
Balance of Loans taken over from South Australia—				
Northern Territory . . . . .	329,100	..	32,924	362,024
Port Augusta Railway . . . . .	859,035	..	62,011	921,046
Properties transferred from New South Wales . . . . .	..	..	111,125	111,125
<b>Total Works and other Purposes</b> . .	68,031,550	17,155,997	27,677,447	112,824,994
<b>Total Commonwealth Purposes</b> . .	158,775,930	17,115,997	222,992,803	398,884,730

## PER HEAD OF POPULATION. (b)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.
War . . . . .	13 17 1	..	29 16 6	43 13 7
Works and other Purposes . . . . .	10 7 10	2 12 3	4 4 6	17 4 7
<b>Total Commonwealth Purposes</b> . .	24 4 11	2 12 3	34 1 0	60 18 2

(a) The total "face" or "book" value of the public debt without adjustment on account of currency changes since the loans were floated. (b) Based on population at 30th June, 1932.

(ii) *Loans to States for Soldier Land Settlement.* In regard to the item "Advances to States for Soldier Land Settlement", the Commonwealth Government has agreed to make remissions to the States in connexion with the losses sustained in respect of Soldier Land Settlement. Consequent upon the ratification of the proposals by all Governments concerned, the Commonwealth Government has, from 1st October, 1925, assumed responsibility for £5,000,000 of States' debts maturing in Australia, and an additional amount of £2,597,783 from 1st July, 1927. Further reference is made to this matter in Chapter XII., Defence, § 10.5.

(iii) *Place of Flotation.* The loans taken over from South Australia, which constituted the first portion of the Federal Public Debt, included both London and Australian securities. The presence in the Treasury of a large holding of gold, and the moderate rate of interest ruling on gilt-edged securities, made the conditions in 1911 and for some little time afterwards very favourable for the flotation of local loans. London securities were redeemed as they fell due, and replaced by the  $3\frac{1}{2}$  per cent. stock of the Loan Fund. Consequently, up to 1914 the amount of the securities repayable in London fell steadily, and the amount repayable in Australia rose rapidly. In 1915 the military loan from the Imperial Government caused a sharp rise in the amount of the securities repayable in London, which was maintained in the two following years. This was, however, more than offset by the flotation of the local war loans. In 1925-26 a loan of £15,411,487, of which £10,402,754 was for Commonwealth purposes and £5,008,733 for the States, was raised in New York. The appended table gives particulars of Commonwealth loans outstanding in each of the last five years which had been floated overseas and in Australia respectively.

**PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—PLACE OF FLOTATION.**

Place of Flotation, etc.	At 30th June—				
	1928.	1929.	1930.	1931.	1932.
War Debt—					
London .. .. £ Stg.	96,822,659	93,810,641	92,314,742	90,744,381	90,744,380
Total Overseas (a) ..	96,822,659	93,810,641	92,314,742	90,744,381	90,744,380
Australia .. .. £ Aust.	204,195,231	201,604,887	197,673,573	194,633,628	195,315,356
Total War Debt (a) ..	301,017,890	295,415,528	289,988,315	285,378,009	286,059,736
Works and other purposes—					
London .. .. £ Stg.	39,393,188	48,819,932	58,431,406	66,694,426	68,031,550
New York .. .. £ Gold	17,291,277	17,155,718	17,155,718	17,155,718	17,115,997
Total Overseas (a) ..	56,684,465	65,975,650	75,587,124	83,850,144	85,147,547
Australia .. .. £ Aust.	22,679,517	23,828,177	14,979,706	27,088,176	27,677,447
Total Debt for Works, etc. (a)	79,363,982	89,803,827	90,566,830	110,938,320	112,824,994
Total Debt—					
London .. .. £ Stg.	136,215,847	142,630,573	150,746,148	157,438,806	158,775,930
New York .. .. £ Gold	17,291,277	17,155,718	17,155,718	17,155,718	17,115,997
Total Overseas (a) ..	153,507,124	159,786,291	167,901,866	174,594,524	175,891,927
Australia .. .. £ Aust.	226,874,748	225,433,064	212,653,279	221,721,804	222,992,803
Grand Total (a) ..	380,381,872	385,219,355	380,555,145	396,316,328	398,884,730

(a) The figures given represent the total "face" or "book" value of the public debt without any adjustment on account of currency changes since the loans were floated.

The particulars given above for war debt maturing in Australia take into account the remissions by the Commonwealth on account of losses incurred by the States in connexion with Soldier Land Settlement, and differ on that account from the figures given in earlier issues.

(iv) *Amount of Debt at Various Rates of Interest.*—When the first debt was taken over from South Australia, it consisted mainly of securities bearing interest varying from 3 per cent. to 4 per cent., the average rate of interest for the first year being £3 12s. 4d. For the first three years the increase in the debt was due almost entirely to the expansion of the 3½ per cent. stock of the Loan Fund, consequently the average rate of interest fell steadily, until on 30th June, 1914, it stood at £3 11s. 10d. Then came the loans for military and repatriation purposes, and the fall in the average rate was ultimately converted into a rise which was steadily maintained until July, 1931, when the National Debt Conversion Loan (July–August, 1931), reduced interest rates on internal loans by 22½ per cent. The average rate of interest on internal loans at 30th June, 1932, was £3 19s. per cent. as compared with £5 10s. 4d. per cent. at 30th June, 1931. The average rate of interest payable on the total debt decreased from £5 5s. 2d. per cent. in 1931 to £4 7s. 9d. per cent. at 30th June, 1932.

The accompanying table gives particulars of rates on interest of the debt for Commonwealth purposes for the year ended 30th June, 1932.

## PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—RATES OF INTEREST.

Rates of Interest.				At 30th June, 1932—Debt Maturing in—			
				London.	New York.	Australia.	Total.
%				£ (Stg.)	£ (Gold.)	£ (Aust.)	£ (a)
6	..	..	..	15,000,000	..	..	15,000,000
5	..	..	..	48,218,775	12,782,677	(b) 203,917	61,205,369
4.91675	..	..	..	79,724,220	..	..	79,724,220
4.75	..	..	..	6,000,000	..	..	6,000,000
4.65	..	..	..	..	..	2,299,810	2,299,810
4.5	..	..	..	..	4,333,320	..	4,333,320
4.4542	..	..	..	..	..	89,650	89,650
4.2625	..	..	..	..	..	2,295,301	2,295,301
4.06875	..	..	..	..	..	5,505,710	5,505,710
4	..	..	..	656,778	..	218,403,449	219,060,227
3.875	..	..	..	..	..	8,280,620	8,280,620
3.5	..	..	..	8,176,130	..	111,125	8,287,255
3	..	..	..	1,000,027	..	12,653,191	13,653,218
2.9042	..	..	..	..	..	1,483	1,483
2.7125	..	..	..	..	..	2,008	2,008
Overdue and unconverted	..	..	..	..	..	243,168	243,168
Deduct loans to States for Soldier Land Settlement, etc.—	..	..	..	..	..	—27,096,629	—27,096,629
Total	..	..	..	158,775,930	17,115,997	222,992,803	398,884,730
Total Interest Payable	..	..	..	7,858,150	834,133	8,809,205	17,501,488
Average rate of interest	..	..	..	£4 19 0	£4 15 6	£3 19 0	£4 7 9

(a) See note (a) to table on page 392.

(b) Peace and War Savings Certificates.

(v) *Amount of Interest Payable.* A table is appended showing the interest payable in Australia and overseas on the Commonwealth Public Debt (excluding amounts raised on behalf of the several States and debts of the States taken over) at 30th June in the years 1928 to 1932 inclusive.

## PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—INTEREST PAYABLE.

Interest on and where payable.	At 30th June—				
	1928.	1929.	1930.	1931.	1932.
War Debt—					
London .. .. . £ Stg.	4,854,202	4,721,540	4,647,992	4,570,782	4,570,782
Australia .. .. . £ Aust.	11,041,493	10,928,403	10,709,304	10,865,537	7,828,852
<b>Total War Debt .. £ (a)</b>	<b>15,895,695</b>	<b>15,649,943</b>	<b>15,357,296</b>	<b>15,436,319</b>	<b>12,399,634</b>
Works and other Purposes—					
London .. .. . £ Stg.	1,984,735	2,460,837	2,943,397	3,216,561	3,287,368
New York .. .. . £ Gold	842,858	836,109	836,109	836,109	834,133
<b>Total Overseas .. £ (a)</b>	<b>2,827,593</b>	<b>3,296,946</b>	<b>3,779,506</b>	<b>4,052,670</b>	<b>4,121,501</b>
Australia .. .. . £ Aust.	1,038,433	1,098,733	664,756	1,324,706	980,353
<b>Total Debt for Works, etc. .. £ (a)</b>	<b>3,866,026</b>	<b>4,395,679</b>	<b>4,444,262</b>	<b>5,377,376</b>	<b>5,101,854</b>
Total Debt—					
London .. .. . £ Stg.	6,838,937	7,182,377	7,591,389	7,787,343	7,858,150
New York .. .. . £ Gold	842,858	836,109	836,109	836,109	834,133
<b>Total Overseas .. £ (a)</b>	<b>7,681,795</b>	<b>8,018,486</b>	<b>8,427,498</b>	<b>8,623,452</b>	<b>8,692,283</b>
Australia .. .. . £ Aust.	12,079,926	12,027,136	11,374,060	12,190,243	8,809,205
<b>Grand Total .. .. £ (a)</b>	<b>19,761,721</b>	<b>20,045,622</b>	<b>19,801,558</b>	<b>20,813,695</b>	<b>17,501,488</b>

(a) The totals shown represent the nominal amount of interest, taking no account of exchange.

(vi) *Dates of Maturity.* The dates of maturity of the several portions of the Commonwealth debt are shown hereunder according to years ending 30th June. On that account the figures given are not directly comparable with those published prior to 1929-30. The Commonwealth Government has refrained from issuing interminable stock, but, in respect of a small proportion of the debt, no definite date of maturity had been assigned on 30th June, 1932. While the actual dates of maturity extend from 1932-33 to 1975-76, or a period of 43 years, the average period till maturity of the gross debt is only about 10 years.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—DUE DATES OF AMOUNTS  
OUTSTANDING ON 30th JUNE, 1932(a).

Due Dates (year ended 30th June).				Due in—			Total
				London.	New York.	Australia.*	
				£ (Stg.)	£ (Gold.)	£ (Aust.)	£ (c)
1933	..	..	..	10,220,160	..	16,874,990	27,095,150
1934	..	..	..	..	..	2,091,777	2,091,777
1935	..	..	..	83,051	..	942,130	1,025,181
1936	..	..	..	573,727	..	538,211	1,111,938
1937	..	..	..	371,806	..	259,330	631,136
1938	..	..	..	..	..	147,586	147,586
1939	..	..	..	159,523	..	43,134,177	43,293,700
1940	..	..	..	..	..	432,438	432,438
1941	..	..	..	15,000,000	..	84,650	15,084,650
1942	..	..	..	..	..	34,242,090	34,242,090
1943	..	..	..	..	..	2,558,430	2,558,430
1945	..	..	..	17,354,817	..	28,087,528	45,442,345
1948	..	..	..	..	..	25,001,067	25,001,067
1949	..	..	..	..	..	439,920	439,920
1951	..	..	..	..	..	16,759,301	16,759,301
1954	..	..	..	..	..	16,142,040	16,142,040
1956	..	..	..	..	14,544,231	15,859,198	30,403,429
1958	..	..	..	..	2,571,766	15,410,276	17,982,042
1960	..	..	..	..	..	15,399,212	15,399,212
1961	..	..	..	6,000,000	..	..	6,000,000
1962	..	..	..	..	..	14,945,875	14,945,875
1976	..	..	..	29,288,599	..	..	29,288,599
Overdue	..	..	..	..	..	243,168	243,168
Indefinite	..	..	..	..	..	384,913	384,940
Annual repayments	..	..	..	79,724,220	..	..	79,724,220
Transferred Properties (b)	..	..	..	..	..	111,125	111,125
Deduct loans to States for Soldier Land Settlement, etc	..	..	..	..	..	-27,096,629	-27,096,629
<b>Total</b>	..	..	..	<b>158,775,930</b>	<b>17,115,997</b>	<b>222,992,803</b>	<b>398,884,730</b>

(a) Loans of which the Government has the option of redemption during a specified period have been in each case classified according to the latest date of maturity. (b) From New South Wales. See §4.4 hereinbefore. (c) See note (a) to table on page 392.



9. Sinking Funds.—Particulars relating to the creation of sinking funds are included in previous issues.

The old sinking funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure of the Commonwealth Account from the year 1927-28 are as follows :—

**PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—SINKING FUND.**

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	Total, 1922-23 to 1931-32.
	£	£	£	£	£	£
Cr. Brought forward ..	1,324,897	955,726	746,737	573,276	512,944	..
Balance transferred to Fund on 11th August, 1923 ..	..	..	..	..	..	2,262,982
From Consolidated Revenue	2,276,092	2,469,272	2,668,133	889,170	2,507,100	20,165,237
Repayments of Sundry Loans ..	9,931	260,028	261,855	2,967	28,475	1,144,139
Purchase Money and Re- payments under War Service Homes Act ..	787,897	799,508	702,244	491,887	409,996	6,188,828
Half Net Profit Common- wealth Bank ..	320,563	349,204	362,825	391,013	396,905	2,475,116
Reparation Moneys ..	651,779	876,404	877,832	1,264,519	Dr. 616	5,571,105
Interest on Investments ..	54,246	30,312	28,573	24,544	21,015	544,591
Contributions by States ..	8,927	21,013	24,945	9,898	10,088	76,089
<b>Total ..</b>	<b>5,434,332</b>	<b>5,761,467</b>	<b>5,673,144</b>	<b>3,647,274</b>	<b>3,885,907</b>	<b>38,428,087</b>
Dr. Redemptions ..	4,478,606	5,014,730	5,099,868	3,134,330	1,835,735	36,377,915
Carried forward ..	955,726	746,737	573,276	512,944	2,050,172	2,050,172
<b>Total ..</b>	<b>5,434,332</b>	<b>5,761,467</b>	<b>5,673,144</b>	<b>3,647,274</b>	<b>3,885,907</b>	<b>38,428,087</b>

The Imperial Government loan comes in a different category from the others, since it is being liquidated by the funding arrangement described on a previous page.

Information regarding the transactions of the States' Account of the National Debt Sinking Fund is published in Finance Bulletin No. 23 issued by this Bureau.

**§ 5. Cost of War and Repatriation.**

In view of the importance of the subject, a further reference is here made to the cost of the war. The general policy of the Commonwealth Government has been to pay from Consolidated Revenue all recurring charges for interest, sinking fund, pensions, and other charges consequent upon the war, and part of the expense of repatriation.

On the other hand, the whole direct cost of the war and the larger proportion of the cost of repatriation have been paid from loans. The total cost from both sources to the 30th June, 1932, is set out in the following table:—

**COST OF WAR SERVICES.**

Year.	War and Repatriation Services, including War Pensions. (From Consolidated Revenue.)	War Loan Expenditure. (b)	Total.	Interest and Sinking Fund. (From Consolidated Revenue.)
	£	£	£	£
1914-15 .. ..	896,190	14,100,000	14,996,190	115,145
1915-16 .. ..	1,718,887	37,423,568	39,142,455	2,059,491
1916-17 .. ..	2,439,271	53,114,237	55,553,508	5,988,058
1917-18 .. ..	4,049,955	55,028,180	59,078,135	7,813,296
1918-19 .. ..	9,966,927	59,547,080	69,514,007	11,288,174
1919-20 .. ..	8,976,793	43,294,764	52,271,557	15,774,938
1920-21 .. ..	10,242,345	24,148,501	34,390,846	23,043,888
1921-22 .. ..	10,261,471	7,576,977	17,838,448	21,075,693
1922-23 .. ..	9,298,560	1,762,694	11,061,254	20,801,912
1923-24 .. ..	8,161,230	691,247	8,852,477	20,608,876
1924-25 .. ..	8,232,656	Cr. 32,051	8,200,605	20,250,105
1925-26 .. ..	8,473,717	Cr. 7,613	8,466,104	20,698,133
1926-27 .. ..	8,814,001	23,938	8,837,939	20,495,082
1927-28 .. ..	8,788,037	Cr. 23,741	8,764,296	20,218,175
1928-29 .. ..	9,026,749	Cr. 12,972	9,013,777	21,071,002
1929-30 .. ..	9,520,750	Cr. 2,669	9,518,081	20,579,056
1930-31 .. ..	10,468,748	Cr. 2,206	10,466,542	19,037,470
1931-32 .. ..	8,852,913	..	8,852,913	12,552,644
Discounts and Flotation Expenses on Loans ..	..	5,948,874	5,948,874	..
Indebtedness to the Government of the United Kingdom for payments made, services rendered, and goods supplied during the war (a) ..	..	43,398,098	43,398,098	..
War Gratuities paid in cash ..	452,295	27,046,349	27,498,644	..
<b>Total to 30th June, 1932</b>	<b>138,641,495</b>	<b>373,023,255</b>	<b>511,664,750</b>	<b>283,471,138</b>

(a) The total indebtedness to the Government of the United Kingdom involved in the *Funding Arrangements Act 1921* was £92,480,157. At 30th June, 1932, the amount outstanding had been reduced to £79,724,220. (b) Excluding expenditure on War Service Homes from 1923-24. (See page 389.)

**§ 6. Old-age and Invalid Pensions.**

**I. General.**—In previous issues of the Year Book an account was given of the introduction of the old-age pension system in Australia, together with a detailed description of the Commonwealth Invalid and Old-age Pensions Act of 1908, which became operative on 1st July, 1909. (See Year Books, Nos. 3 to 8.) The following statement shows particulars of the rates of pension originally payable and in accordance with the several amendments to the Act:—

## RATES OF PENSION PAYABLE.

Date from which Operative.	Pension Payable (Annual Rate.)	Pensioner's Annual Income including pension not to exceed—
	£ s. d.	£ s. d.
1st July, 1909 .. ..	26 0 0	52 0 0
12th October, 1916 .. ..	32 10 0	58 10 0
1st January, 1920 .. ..	39 0 0	65 0 0
13th September, 1923 .. ..	45 10 0	78 0 0
8th October, 1925 .. ..	52 0 0	84 10 0
23rd July, 1931 .. ..	45 10 0	78 0 0
13th October, 1932 .. ..	45 10 0(a)	71 10 0

(a) Maximum amount of pension payable.

In 1916 an old-age pension of 2s. per week was first paid to pensioners who became inmates of Benevolent Asylums. This amount was increased to 3s. per week in 1923 and extended to pensioners entering hospitals. Further increments to these pensioners were granted in 1925 and 1928 raising the pension to 4s. and 5s. 6d. per week respectively. In 1931 the amount was reduced to 5s. per week and in 1932 to 3s. 9d. per week.

Asiaties are ineligible for the old-age pension except Indians born in British India, from whom disqualification was removed by an amending act operative from 7th October, 1926.

Invalid pensions were granted from 15th December, 1910. In regard to invalid pensions, the applicant must satisfy the Department that her or his disability is both total and permanent and became so in Australia.

In 1920 special provision was made for a permanently blind person, by which the amount of pension may be at such a rate (not exceeding £52—reduced to £45 10s. from 23rd July, 1931) per annum, as will make his income plus that of his wife together with the pension, equal to an amount not exceeding £221 per annum or such other amount as is declared to be a basic wage.

The *Financial Emergency Act*, 1931, reduced old-age and invalid pensions to £45 10s. per annum and the permissible income to £78 per annum. A reduction to 5s. per week was also made in the cases of pensioners in Benevolent Asylums and Hospitals.

The *Financial Emergency Act*, 1932, which operated from 13th October, 1932, materially amended the conditions under which pensions were granted. The maximum rate of pension payable, viz., £45 10s. per annum, was not altered, but this rate was made to apply only to pensioners without other means. Where pensioners are in receipt of other income or are possessed of property (other than their own homes) valued at £60 or over the rates of pension are graduated. Payments to pensioner inmates of Benevolent Asylums and Hospitals and to these institutions for pensioners' maintenance were reduced to 3s. 9d. and 11s. 3d. per week respectively.

Further explanation of pension rates; the liability of pensioners under certain circumstances to repay pension payments made from 13th October, 1932, which, upon the death of the pensioner, become a charge by the Commonwealth Government on his estate; dealings in property by pensioners; contributions by relatives; and other matters incorporated in the act above referred to are given in the *Invalid and Old-age Pensions Handbook* issued by the Commissioner of Pensions.

2. **Old-age Pensions.**—(i) *Number in force.* At 30th June, 1931, there were 172,177 old-age pensions in force. During 1931-32, 25,135 pension claims were granted, cancellations and deaths amounted to 13,995, giving a net increase of 11,140 pensions for the year and bringing the total pensions in existence at 30th June, 1932, to 183,317.

(ii) *Sexes of Pensioners.* Of the pensioners at 30th June, 1932, 77,793 (or 42 per cent.) were males, and 105,524 (or 58 per cent.) were females. Details for the several States are as follow :—

OLD-AGE PENSIONS.—SEXES OF PENSIONERS, 1931-32.

State.	Males.	Females.	Total.	(a) Masculinity.
New South Wales .. ..	30,098	39,769	69,867	75.7
Victoria .. ..	21,381	31,414	52,795	68.1
Queensland .. ..	10,718	13,018	23,736	82.3
South Australia .. ..	6,632	10,428	17,060	63.6
Western Australia .. ..	5,375	6,083	11,458	88.4
Tasmania .. ..	3,589	4,812	8,401	74.6
<b>Total .. ..</b>	<b>77,793</b>	<b>105,524</b>	<b>183,317</b>	<b>73.7</b>

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Condition of Pensioners.* The recorded ages of the 25,135 persons, 12,405 males and 12,730 females, to whom pensions were granted during the year 1931-32 varied considerably, ranging from 4,348 at age 60 to 1 at age 97. The conjugal condition of these pensioners was as follows :—Males—single, 2,494; married, 7,701; and widowed, 2,210. Females—single, 1,422; married, 7,311; and widowed, 3,997.

3. *Invalid Pensions.*—(i) *Number in force, 1932.* During the year 1931-32, the number of invalid pensioners increased from 68,343 to 72,292, an increase of 3,949 pensions. Altogether 9,627 claims were allowed and 5,678 pensions were cancelled.

(ii) *Sexes of Pensioners.* Of the 72,292 persons in receipt of invalid pensions on 30th June, 1932, 32,074, or 44 per cent., were males, and 40,218, or 56 per cent., were females. Details for the several States are as follow :—

INVALID PENSIONS.—SEXES OF PENSIONERS, 1931-32.

State.	Males.	Females.	Total.	(a) Masculinity.
New South Wales .. ..	13,025	16,930	29,955	76.9
Victoria .. ..	9,255	11,530	20,785	80.3
Queensland .. ..	4,896	5,341	10,237	91.7
South Australia .. ..	1,885	2,952	4,837	63.9
Western Australia .. ..	1,827	1,963	3,790	93.1
Tasmania .. ..	1,186	1,502	2,688	79.0
<b>Total .. ..</b>	<b>32,074</b>	<b>40,218</b>	<b>72,292</b>	<b>79.8</b>

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Conditions of Pensioners, 1932.* The recorded ages of the 9,627 persons (4,878 males and 4,749 females) to whom invalid pensions were granted during the period under review varied from 16 to 88.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows:—Males—single, 2,022; married, 2,554; and widowed, 302. Females—single, 1,921; married, 1,901; and widowed, 927.

4. **Cost of Administration.**—Under State control the cost of administration differed considerably in the several States, and for 1908-9 represented in New South Wales 4.17 per cent. of the amount actually paid in pensions. In Victoria for the same year the corresponding percentage was 0.70. During the year 1931-32, the total cost to the Commonwealth of administering the Old-age and Invalid Pensions Department was £81,859, or about 0.74 per cent. of the amount actually paid in pensions.

The actual sum disbursed in old-age and invalid pensions in the financial year 1931-32, apart from the cost of administration and inclusive of the amount paid to asylums and hospitals for the maintenance of pensioners, was £11,125,956.

5. **Summary.**—The following table gives details concerning the working of the Act for the last five years:—

#### OLD-AGE AND INVALID PENSIONS.—SUMMARY, AUSTRALIA.

Year ended 30th June—	Number of Pensioners.				Total Payment to Pensioners and to Asylums and Hospitals for Maintenance of Pensioners.		Cost of Administration.	Cost of Administration per £100 paid to Pensioners and to Asylums and Hospitals.	Average Fort-nightly Pension on last day of Financial Year.	
	Old-age.		Invalid.	Total.						
	No.	Est. No. per 1,000 of persons eligible on age qualification. (a)			£	£	£	£ s. d.	s. d.	
1928	139,367	310	55,517	194,884	9,681,837	9,790,346	118,641	1 4 3	38 5	
1929	145,393	312	59,148	204,541	9,991,299	10,124,239	86,605	0 17 1	38 5	
1930	155,196	321	63,304	218,500	10,633,979	10,791,325	89,201	0 16 6	38 5	
1931	172,177	345	68,343	240,520	11,549,828	11,710,953	93,077	0 15 11	38 4	
1932	183,317	357	72,292	255,609	10,978,633	11,125,956	81,859	0 14 9	33 3b	

(a) Estimated number of old-age pensioners per 1,000 of the aggregate of males aged 65 and over and females aged 60 and over.

(b) A general reduction of 5s. per fortnight was made in July, 1931, as provided by the *Financial Emergency Act 1931*.

### § 7. Maternity Allowance.

1. **General.**—During the session of 1912 the Federal Parliament passed an Act (assented to on 10th October, 1912) providing for the payment of maternity allowances. The scope and main provisions of the Act are given in Year Book No. 14, p. 1047. The most important conditions in the original Act were that the sum of five pounds was payable in the case of each confinement resulting in the birth of a viable child whether such child was born alive or dead. The mother must be a native of Australia or intend to settle permanently therein. No payment is made in the case of an aboriginal or an Asiatic. The *Financial Emergency Act 1931* reduced the allowance payable to £4 and limited the application of the original Act to those cases where the combined income of husband and wife did not exceed £260 (reduced to £208 by the *Financial Emergency Act 1932*) in the previous 12 months.

The following table gives a summary in connexion with the working of the Maternity Allowance Act for the years 1928 to 1932 :—

MATERNITY ALLOWANCE.—SUMMARY.

Year.	Claims Paid.	Claims Rejected.	Amount Paid.	Cost of Administration.	Cost per £100 of allowance paid.
	No.	No.	£	£	£ s. d.
1927-28 ..	135,784	1,261	678,920	15,489	2 5 8
1928-29 ..	132,304	901	661,520	16,626	2 10 3
1929-30 ..	128,598	821	642,990	15,157	2 7 2
1930-31 ..	126,149	770	630,652a	15,322	2 8 7
1931-32 ..	92,410	5,229	378,022	14,180	3 15 0
Aggregate— 1912-13 to 1931-32 ..	2,567,885	17,537	12,755,302	279,506	2 3 10

(a) Excluding £93 refunded.

2. Claims paid in each State.—The following table shows the number of maternity allowance claims paid in each State during the last five years :—

MATERNITY ALLOWANCE.—CLAIMS PAID IN EACH STATE.

Year ended 30th June.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Total.
1928 .. ..	55,072	35,656	19,790	11,716	8,598	4,898	54	135,784
1929 .. ..	54,275	34,132	19,040	11,148	8,888	4,777	44	132,304
1930 .. ..	52,335	33,381	18,490	10,361	9,030	4,959	42	128,598
1931 .. ..	51,660	32,241	18,790	9,720	8,909	4,778	51	126,149
1932 .. ..	36,569	23,988	13,240	7,637	6,773	4,169	34	92,410
Total, 1910 to 1931-32 ..	1,024,384	673,744	378,102	223,395	162,146	105,312	802	2,567,885

§ 8. War Pensions.

1. General.—An Act for the provision of war pensions was passed in 1914 and amended in 1915 and 1916. Its scope can be determined by the following extract from Section 3. "Upon the death or incapacity of any member of the forces whose death or incapacity results, or has resulted, from his employment in connexion with warlike operations in which His Majesty is, or has since the commencement of the present state of war been engaged, the Commonwealth shall, subject to this Act, be liable to pay to the member or his dependants or both, as the case may be, pensions in accordance with this Act." The general reduction of expenditure provided by the *Financial Emergency Act* 1931 applied also to War Pensions. No reductions, however, were made in the rate of pension payment to incapacitated soldiers, the necessary economies being effected in payments to other war pensioners.

Prior to 1st July, 1932, the Commonwealth Government bore the cost of exchange in connexion with the payment of pensions to Australian soldiers domiciled overseas.

2. Number of Pensioners and Expenditure on War Pensions.—The following table shows the number of pensioners at 30th June, 1932, and the places where payments were made during 1931-32 :—

**WAR PENSIONS.—NUMBER OF PENSIONERS, 1932.**

Where Paid.	Incapacitated Members of the Forces.	Dependants of—		Total.	Expenditure.
		Deceased Members.	Incapacitated Members.		
					£
New South Wales ..	25,330	9,660	53,328	88,318	2,552,380
Victoria ..	25,591	9,433	57,463	92,487	2,253,005
Queensland ..	8,185	2,957	17,688	28,830	817,780
South Australia ..	4,129	2,468	9,204	15,801	453,728
Western Australia ..	7,345	2,479	16,521	26,345	698,356
Tasmania ..	3,068	1,290	8,245	12,603	339,738
<b>Total, Australia ..</b>	<b>73,648</b>	<b>28,287</b>	<b>162,449</b>	<b>264,384</b>	<b>7,114,987</b>
London ..	1,692	3,133	3,931	8,756	} 325,201
South Africa ..	52	30	82	164	
New Zealand ..	231	164	347	742	
Other Overseas ..	23	5	37	65	
<b>Total ..</b>	<b>75,646</b>	<b>31,619</b>	<b>166,846</b>	<b>274,111</b>	<b>7,440,188</b>
Payments made in Australia in respect of other countries less amounts received from other countries	..	..	..	..	8,992
<b>Total, War Pensions Trust Fund Account</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>7,449,180</b>

3. Cost of Administration.—The cost of administration in 1931-32, after allowing for the amount recoverable from the Government of the United Kingdom on account of administrative cost of British pensions was £152,281, or 2.04 per cent. on the total amount paid in pensions.

### § 9. Commonwealth Public Service Superannuation Fund.

This Fund, which was inaugurated on the 20th November, 1922, is maintained by contributions of officers of Parliament, of employees of the Commonwealth Public Service and the Defence Department, and by payments from the Consolidated Revenue—the latter being made when the officers retire on pension. Full particulars as to the benefits, etc., will be found in Official Year Book No. 18, page 383.

The number of contributors to the fund at 30th June, 1932, was 31,358, viz., 27,962 males and 3,396 females, and the average pension contributed for was £112 16s. 3d. per annum.

During 1931-32, the receipts of the fund amounted to £590,048, of which officers' contributions represented £407,038. The payments from the fund for the year was £587,941, of which £396,696 was invested, bringing the total funds invested to £3,782,448 (at cost). The average rate of interest on investments at 30th June, 1932, was 4.4 per cent.

Pension in force on the 30th June, 1932, numbered 4,138, with a net annual liability after the reduction of 20 per cent. of the Commonwealth's share of pensions referred to in the next paragraph, of £298,364, of which £211,750 represents the share payable from the Consolidated Revenue Fund.

Contributions from the Commonwealth Consolidated Revenue to the fund were reduced by 20 per cent. from July, 1931, under the *Financial Emergency Act 1931*, and as the Government contribution in respect of any officer does not commence until he is superannuated, the reduced contribution affects all pensioners. The investments of the fund were subject to the interest reduction of approximately 22½ per cent. as provided in the above mentioned Act.

§ 10. Currency and Coinage.

1. **Australian Mints.**—Soon after the discovery of gold in Australia, steps were taken for the establishment of a branch of the Royal Mint in Sydney. The formal opening took place on the 14th May, 1855. The Melbourne branch was opened on the 12th June, 1872, and the Perth branch on the 20th June, 1899. The States of New South Wales, Victoria, and Western Australia provided an annual endowment in return for which the mint receipts were paid into the respective State Treasuries, and it might be said until recently that, apart from expenditure on buildings, new machinery, etc., the accounts paid into the Treasuries fairly balanced the mint subsidies. Early in 1923, however, it was announced that owing to losses incurred in the operations of recent years, the British Treasury in consultation with the New South Wales Government had decided to close the Sydney branch at the end of 1923. This decision was, however, not carried out at that time, but the mint was closed at the end of 1926.

2. **Standard Weight and Fineness of Coinage.**—In addition to coins minted at Melbourne and Perth mints, Imperial silver coins legally current in England and which were minted prior to 31st March, 1920, when the fineness was reduced from .925 to .500 are also legal tender in Australia. The circulation of Imperial silver currency in Australia has practically ceased, as the ruling exchange rate has made it profitable to transfer to London all coins legally current there. Sovereigns coined at the Royal Mint, London, or at any of its branches throughout the Empire are legal tender in Australia. The provisions as to legal tender are—gold coins, legal tender to any amount, silver for an amount not exceeding forty shillings, and bronze up to one shilling. The standard weights of the sovereign and half-sovereign are respectively 123.27447 grains and 61.63723 grains, but these coins will pass current if they do not fall below 122.5 grains and 61.125 grains respectively. Gold coins have ceased to circulate in Australia and Commonwealth Bank Notes are legal tender to any amount.

3. **Gold Receipts and Issues.** (i) *Receipts.* The receipts of gold during 1932 and the aggregate at each mint to the end of 1932 were as follow :—

AUSTRALIAN MINTS.—RECEIPTS OF GOLD, 1932, AND TOTAL.

Mint.	Deposits during 1932.	Total to end of 1932.		
		Quantity.		Value.
		Gross.	Fine.	
	ozs. Gross.	ozs.	ozs.	£
Sydney ..	..	(a) 42,082,928	(a) 36,907,045	(a) 156,771,141
Melbourne ..	.. 439,635	42,274,863	38,754,918	164,620,321
Perth ..	.. 770,324	34,620,329	28,356,204	120,449,423
<b>Total ..</b>	<b>1,209,959</b>	<b>118,978,120</b>	<b>104,018,167</b>	<b>441,840,885</b>

(a) To end of 1926.



In cases of deposits containing over a certain minimum of silver, the excess is paid for at the rate fixed from time to time by the Deputy-Master of the branch mint concerned.

(ii) *Issues.* The Australian mints, besides issuing gold coin in the shape of sovereigns and half-sovereigns, also issue gold bullion, partly for the use of local manufacturers (jewellers and dentists), and partly for export. Since September, 1931, when the United Kingdom departed from the gold standard, the minting of gold coins by Australian mints has ceased. Australian exports of gold are mainly in the form of 400-oz. ingots, but in earlier years a considerable amount of gold was shipped in 10-oz. bars to India. During recent years the export was subject to regulation by the Commonwealth Government. The issues during 1932, and the total to the end of that year, are shown in the table below :—

**AUSTRALIAN MINTS.—ISSUES OF GOLD.**

Mint.	Coin.			Bullion.	Total.
	Sovereigns.	Half-sovereigns.	Total.		
	£	£	£	£	£
1932— Melbourne ..	..	..	..	1,112,155	1,112,155
Perth ..	..	..	..	2,647,778	2,647,778
 Total, 1932	..	..	..	3,759,933	3,759,933
Aggregate—					
Sydney ..	144,435,550	4,781,000	149,216,550	7,574,408	156,790,958
Melbourne ..	147,283,131	946,780	148,229,911	16,389,241	164,619,152
Perth ..	106,384,197	367,338	106,751,535	13,694,188	120,445,723
 Total to end of 1932 ..	398,102,878	6,095,118	404,197,996	37,657,837	441,855,833

(iii) *Withdrawals of Worn Coin.* The mints receive light and worn coin for recoinage. The total withdrawals of worn gold coin were as follows :—Sydney (to 1926), £1,110,867; Melbourne, £882,304 (since and including 1890); and Perth, £1,401.

4. *Price of Gold.*—In consequence of Great Britain's departure from the gold standard on 21st September, 1931, the market value of gold immediately rose by about 17½ per cent. from £4 4s. 11d. to £4 19s. 7d. per ounce fine. Considerable fluctuations have since taken place, and the average monthly value of gold based on the London open market price per ounce fine adjusted to the telegraphic transfer exchange rate (Australia on London) less a small percentage for shipping charges is given in the following table in £ sterling and £ Australian from January, 1932, to August, 1933. Particulars are also shown for the value of the sovereign.

## PRICE OF GOLD.—LONDON AND AUSTRALIA, 1932-33.

Month.	London.		Australia.		
	Average price per ounce, fine.	Average value of Sovereign.	Average price per ounce, fine.	Average value of Sovereign.	Equivalent to a premium of—
1932—	£s s. d.	£s s. d.	£A s. d.	£A s. d.	%
January ..	6 0 5	1 8 4	7 8 8	1 15 0	74.9
February ..	5 19 8	1 8 2	7 7 9	1 14 9	73.9
March ..	5 14 1	1 6 10	7 0 1	1 13 2	65.8
April ..	5 10 3	1 6 0	6 16 2	1 12 1	60.2
May ..	5 12 10	1 6 7	6 19 3	1 12 9	64.0
June ..	5 13 4	1 6 8	6 19 11	1 12 11	64.7
July ..	5 16 0	1 7 4	7 3 2	1 13 8	68.5
August ..	5 18 6	1 7 11	7 6 4	1 14 5	72.2
September ..	5 18 8	1 7 11	7 6 6	1 14 6	72.4
October ..	6 1 5	1 8 7	7 9 10	1 15 3	76.4
November ..	6 5 9	1 9 7	7 15 2	1 16 6	82.7
December ..	6 5 9	1 9 7	7 15 2	1 16 6	82.7
1933—					
January ..	6 2 6	1 8 10	7 11 2	1 15 7	78.0
February ..	6 0 9	1 8 5	7 9 0	1 15 1	75.4
March ..	6 0 4	1 8 4	7 8 6	1 15 0	75.0
April ..	6 0 8	1 8 5	7 8 11	1 15 1	75.3
May ..	6 3 5	1 9 1	7 12 4	1 15 10	79.3
June ..	6 2 3	1 8 9	7 10 11	1 15 6	77.7
July ..	6 4 0	1 9 2	7 13 1	1 16 0	80.2
August ..	6 5 8	1 9 7	7 15 2	1 16 6	82.6

NOTE.—“£s” represents £ sterling while Australian £s are indicated by “£A.”

5. **Silver and Bronze Coinage.**—(i) *Prices of Silver.* The value of silver has greatly decreased since its demonetization and restricted coinage in almost the whole of Europe. A noticeable increase, however, took place for some years after 1915, the price of silver following the general trend of world prices. Its average price in the London market in recent years is shown in the table in Chapter XVI., Mineral Industry.

(ii) *Profits on Coinage of Silver.* As sixty-six shillings are coined out of one pound troy of standard silver (.925 fine), the silver required to produce £3 6s. of coin cost, at the average 1932 London market price of 1s. 5.84d. per ounce, approximately 17s. 11d. The difference nearly represents, therefore, the gross profit or seigniorage made on the coinage of every £3 6s. Negotiations for the coinage of silver and bronze coin in Australia extended over a number of years between the Imperial authorities and the Governments of New South Wales and Victoria, but no decision was arrived at. As section 51 of the Commonwealth Constitution makes legislation concerning “currency, coinage, and legal tender” a Federal matter, the question remained in abeyance until 1907, when the matter was discussed at the Colonial Conference, London, with the result that in the latter part of 1908 the Commonwealth Treasurer announced his intention of initiating the coinage. Since 1916 silver and bronze coins have been minted in Australia on behalf of the Commonwealth Treasury.

(iii) *Silver and Bronze Issues.* The total issues of silver and bronze coinage on account of the Commonwealth since 1910, as obtained from returns furnished by the Treasury, are set out in the following table:—

AUSTRALIAN MINTS.—SILVER AND BRONZE ISSUES BY TREASURY.

Year.	Silver.					Bronze.		
	2/-.	1/-.	6d.	3d.	Total.	1d.	½d.	Total.
	£	£	£	£	£	£	£	£
1910-1927 ..	3,230,600	1,700,300	758,700	716,500	6,406,100	287,053	100,275	387,328
1927-28 ..	123,400	50,600	64,400	66,800	305,200	18,460	3,620	22,080
1928-29 ..	71,000	12,400	20,000	24,600	128,000	13,030	5,510	18,540
1929-30 ..	30,000	10,000	11,200	10,000	61,200	3,020	2,310	5,330
1930-31 ..	192,600	45,000	..	..	237,000	..	..	..
1931-32 ..	257,600	19,000	7,200	5,200	289,000	11,600	6,270	17,870
<b>Total ..</b>	<b>3,904,600</b>	<b>1,837,300</b>	<b>861,500</b>	<b>823,100</b>	<b>7,426,500</b>	<b>333,163</b>	<b>117,985</b>	<b>451,148</b>

(iv) *Withdrawals of Worn Silver Coin.* An examination of the wear on silver coins made by the London Mint Authorities in 1909 revealed that the average life of silver coins (then .925 fine) was:—2s. pieces, 45 years; 1s., 41 years; 6d., 28 years; and 3d., 32 years. The value of worn silver coins received during 1932 was as follows:—Melbourne, £47; Perth, nil. The total withdrawals of worn silver coin to 1932 were:—Melbourne, £1,747,409; Perth, £129,738; Sydney (to 1926), £1,248,672.

6. Australian Note Issue.—(i) *General.* Information in some detail regarding Australian Notes has been given in earlier issues of this work. In December, 1920, the Australian Note Issue passed to the control of the Commonwealth Bank, the notes, however, remaining Treasury Notes. The Note Issue Department is administered by the Board of Directors of the Commonwealth Bank.

(ii) *Reserve against Note Issue.* Prior to 19th June, 1931, the reserve held in gold against the note issue was fixed at 25 per cent. of the total notes in circulation. To permit further shipments of gold to meet short-term obligations in London, an Amending Act reduced the statutory gold reserve by graduations to 15 per cent. with provision for the restoration to 25 per cent. within a period not exceeding five years. A further Amending Act provided that portion of the note issue reserve may be held in British sterling, which was defined as follows:—(a) Balances standing to the credit of the Bank at the Bank of England or at any other of its bankers in London; (b) Bills of Exchange or advances secured thereby which will mature in not more than three months and which are payable in the United Kingdom in currency which is legal tender therein; and (c) Treasury Bills or other securities of the United Kingdom which will mature in not more than three months.

(iii) *Notes in Circulation.* Particulars of the average notes in circulation and of the gold reserve for the years 1914 and 1929 to 1932 are given in the following table.

## COMMONWEALTH NOTE ISSUE.—PARTICULARS.

Particulars.	Average of twelve monthly statements for year—				
	1914	1929.	1930.	1931.	1932.
Notes held by—	£	£	£	£	£
Banks ..	(a)	18,199,104	21,322,892	24,939,874	24,916,825
Public ..	(a)	25,162,705	23,446,192	25,221,885	25,740,767
Total ..	11,944,848	43,361,809	44,769,084	50,161,759	50,657,592
Gold Reserve ..	5,368,822	22,014,414	18,143,823	13,144,494	(b)10,616,563
Percentage of Reserve on Total Issue ..	% 44.9	% 50.8	% 40.5	% 26.2	% 21.0

(a) Not available. (b) Includes English sterling.

Details of the average value of each of the several denominations of Australian Notes outstanding in 1914 and from 1928 to 1932 are given in Finance Bulletin No. 23 issued by this Bureau.

7. **Legal Tender Extant.**—Accurate information regarding the amount of token money in circulation is not available, but the following table gives an estimate of the amount of legal tender extant about the middle of the years 1930, 1931, and 1932.

## ESTIMATED LEGAL TENDER EXTANT.—AUSTRALIA.

Particulars.	1930.	1931.	1932.
Australian Note Issue (a)—	£,000.	£,000.	£,000.
Held by Banks .. .. .	22,342	25,351	26,505
Held by Public .. .. .	22,572	25,302	24,798
Notes of Trading Banks outstanding (b) ..	199	198	197
Coin—Gold—Held by Banks (c) .. .. .	1,091	312	158
Held by Public .. .. .	..	..	..
Silver—Held by Banks .. .. .	2,577	2,026	2,289
Held by Public .. .. .	4,163	5,031	5,057
Bronze—Held by Banks .. .. .	145	133	110
Held by Public .. .. .	288	300	341
Total .. .. .	53,377	58,653	59,455

(a) Last Monday in June.

(b) Average for June quarter.

(c) At 30th June.

The figures given above for silver coin represent the total issues of Australian silver coin less the excess of exports of Australian coins to New Zealand and the Pacific Islands over the re-imports of Australian coins. The amount of English coin in circulation in Australia is negligible, and as it is not possible to ascertain accurately its volume, no allowance has been made therefor. The figures given for bronze coins refer to the total issues of Australian coin, the small amount of British coin in circulation being disregarded.

## C. STATE FINANCE.

## § 1. General.

1. **Functions of State Governments.**—In comparing the financial returns of the States allowance must be made for the various functions discharged by the respective Governments, and for local conditions in each case. Direct comparisons of expenditure are difficult, owing to the fact that functions which in one State are assumed by the Central Government are in another relegated to local governing bodies, and that costly developmental work may, under certain conditions, be not only economically justifiable but may be essential to progress, while parsimonious expenditure may be an economic blunder. A large expenditure may, therefore, be an indication either of gross extravagance and bad economy on the one hand, or of healthy progress and good economy on the other. Similarly, as regards revenue, imposts which in some States are levied by the Central Government, are in others dealt with by local or quasi-governmental bodies. Care, therefore, is needed in instituting comparisons, and the particulars contained in this chapter should be read in connexion with those contained in the chapter dealing with Local Government. In many respects moreover, the budgets of the Australian Governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned in rendering public services, such for instance as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

2. **Accounts of State Governments.**—The various financial transactions of the States are in each case mainly concerned with one or other of three Funds—the “Consolidated Revenue Funds,” the “Trust Funds,” and the “Loan Funds.” All revenue (except certain taxation items paid into special funds) collected by the State is placed to the credit of its Consolidated Revenue Fund, from which payments are made under the authority of an Annual Appropriation Act passed by the Legislature, or by a permanent appropriation under a special Act. From 1st July, 1928, the accounts of the Railway and Tramway services, Sydney Harbour Trust, and certain water supply services were separated from the Consolidated Revenue Fund of New South Wales. To preserve the comparability of the State finance statistics, information in respect of the above services has been included in the tabular statements in this section. The Trust Funds comprise all moneys held in trust by the Government, and include such items as savings banks funds, sinking funds, insurance companies’ deposits, etc. The Loan Funds are debited with all loan moneys raised by the State, and credited with the expenditure therefrom on public works or other purposes.

3. **Inter-relation of Commonwealth and State Finances.**—In regard to the inter-relation of Commonwealth and State Finances, a statement in some detail, covering the period from the inception of Federation to the passing of the *Financial Agreement Act* 1928, was published in Official Year Book No. 22, pages 379-80.

## § 2. Consolidated Revenue Funds.

## Division I.—Revenue.

1. **General.**—The principal sources of State revenue are :—

- (a) Taxation ; (b) The public works and services controlled by the State Governments ; (c) Sale of and rental from Crown lands ; (d) Payments by Commonwealth Government under the *Financial Agreement and Special Grants Acts* ; and (e) Miscellaneous sources, comprising fines, fees, interest, etc.

In regard to item (b) attention is directed to the statement (see C. § 1 (2) *ante*) appertaining to the New South Wales accounts. In connexion with the Railway Accounts for that State the Consolidated Revenue Fund contributes to the Railways Commissioners an amount not exceeding £800,000 in respect of losses on country developmental railways. To avoid duplication in determining the aggregate receipts

and expenditure for each of the past three years, a sum of £800,000 has not been included in the railways receipts or Consolidated Revenue Expenditure. During 1929-30, a refund of £327,129 was made to the Railways Commissioners from the Consolidated Revenue Surplus of 1928-29 in respect of Sinking Fund Contribution paid by the Railways Commissioners in 1928-29. This amount also has not been included in revenue year 1929-30.

Of these sources, that yielding the largest revenue for the States as a whole is the group of Public Works and Services, the principal contributor being the Government Railways and Tramways. Next in magnitude comes Taxation, followed in order by the Commonwealth Payments and Land Revenue.

2. Revenue Received.—The following table furnishes particulars of the total amounts and the amounts per head, of consolidated revenue received by the several States during the last five years:—

## STATE CONSOLIDATED REVENUE.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust. (b)	Tasmania.	All States.
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## TOTAL COLLECTIONS.

	£	£	£	£	£	£	£
1927-28	47,997,372	27,357,917	16,718,070	11,346,903	9,807,949	2,962,687	116,190,898
1928-29	50,447,100	28,156,034	16,725,682	10,840,914	9,947,951	2,766,434	118,884,115
1929-30	46,904,889	27,323,842	15,997,870	10,551,016	9,750,515	2,956,272	113,484,404
1930-31	40,920,872	25,575,504	15,072,652	10,725,811	8,686,756	2,609,290	103,590,885
1931-32	38,635,132	24,555,272	12,994,113	10,481,976	8,035,316	2,385,495	97,087,304

## PER HEAD OF POPULATION.(c)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1927-28	20 0 1	15 14 3	18 11 3	19 14 9	25 0 2	14 1 1	18 13 8
1928-29	20 12 6	15 19 11	18 4 8	18 14 7	24 10 4	13 0 2	18 16 2
1929-30	18 18 10	15 7 5	17 3 2	18 3 11	23 8 11	13 14 11	17 14 9
1930-31	16 7 6	14 5 7	15 17 7	18 8 7	20 13 8	11 19 2	16 0 9
1931-32	15 6 9	13 12 7	13 9 6	17 18 6	19 1 3	10 15 11	14 18 2

(a) Includes certain moneys not paid into Consolidated Revenue Fund, such as receipts from Railways, Tramways, Sydney Harbour Trust, certain Water Supply and Sewerage Services and motor taxation in New South Wales and motor taxation in Victoria. (b) Excludes motor taxation. (c) Based on mean population of each financial year.

There was a marked increase in the collections per head in all the States up to the year 1928-29, but in 1929-30 there was a decline of about 22s. per head in the total. A further fall of £1 14s. per head was recorded in 1930-31 when the revenue per head, £16 os. 9d. was the lowest since 1922-23. Revenue from Business Undertakings receded by about £8.7 millions in 1930-31, and by £1.2 millions in 1931-32.

3. Sources of Revenue.—(i) *General.* Classifying the revenue of the several States in the manner indicated in *1 ante*, particulars for the year 1931-32 are as follows :—

## STATE CONSOLIDATED REVENUE.—SOURCES, 1931-32.

Particulars.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
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## TOTAL REVENUE.

	£	£	£	£	£	£	£
Taxation (c) ..	8,125,523	7,709,694	7,100,104	3,076,374	7,006,916	905,715	23,924,326
Business Under-takings ..	23,326,856	11,744,122	6,188,764	4,598,406	4,551,249	478,402	50,887,799
Territorial ..	1,714,960	256,725	1,167,513	159,991	292,622	49,140	3,040,951
Commonwealth payments ..	2,917,411	2,127,159	1,096,235	7,703,816	773,432	516,859	9,134,912
Interest ..	677,399	1,839,167	1,037,537	826,977	(e)	421,773	4,802,853
Miscellaneous ..	1,872,983	878,405	403,960	116,412	1,411,097	13,606	4,096,463
<b>Total</b> ..	<b>38,635,132</b>	<b>24,555,272</b>	<b>12,994,113</b>	<b>10,481,976</b>	<b>8,035,316</b>	<b>2,385,495</b>	<b>97,087,304</b>

## PER HEAD OF POPULATION.(i)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Taxation (c) ..	3 4 6	4 5 7	3 4 3	5 5 3	2 7 10	4 2 0	3 13 6
Business Under-takings ..	9 5 3	6 10 4	6 8 4	7 17 3	10 15 11	2 3 4	7 16 3
Territorial ..	0 13 7	0 2 10	1 4 3	0 5 6	0 13 11	0 4 5	0 11 2
Commonwealth payments ..	1 3 2	1 3 7	1 2 9	2 18 3	1 16 8	2 6 9	1 8 1
Interest ..	0 5 5	1 0 5	1 1 6	1 8 3	(e)	1 18 2	(f) 0 14 9
Miscellaneous ..	0 14 10	0 9 9	0 8 5	0 4 0	3 6 11	0 1 3	0 14 5
<b>Total</b> ..	<b>15 6 9</b>	<b>13 12 7</b>	<b>13 9 6</b>	<b>17 18 6</b>	<b>19 1 3</b>	<b>10 15 11</b>	<b>14 18 2</b>

(a) Includes certain moneys not paid into Consolidated Revenue Fund. See note (a) to table immediately preceding. (b) Including special grant. (c) In some States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections see next page. (d) Excludes £800,000 paid to Railways Commissioners from Consolidated Revenue in respect of losses on country developmental railways. (e) Includes with Miscellaneous. (f) Excludes Western Australia. (g) Excludes Motor and certain other Taxation. (h) Includes Unemployment Relief Tax. (i) Based on mean population of the financial year.

In connexion with the item Business Undertakings, it should be borne in mind that services performed by the Government in one State may, in another, be carried out by a Board or Trust. For instance, in New South Wales and Western Australia the tramway systems are controlled by the Government, while in the other States ownership is largely vested in Trusts or private companies. Harbour and river services and water supply and sewerage are also controlled in some cases by the State and in others by Trusts.

The magnitude of the revenue per head from Business Undertakings in the case of Western Australia is mainly due to railways, the mileage of which is greater per head of population than in other States. In New South Wales and Western Australia the revenue from tramways is also included.

(ii) *Revenue from Taxation.*—(a) *General.* Owing to varying practices obtaining in the several States in regard to the method of treating motor taxation in the respective Treasurers' Statements of Accounts, particulars of State taxation collections have not always been directly comparable. The following table shows for the year 1931-32 particulars of all State taxation collections irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason, the particulars hereunder are different from those stated in the tables relating to the Consolidated Revenue Funds, but represent a comprehensive statement of all taxation collections in each State. In this and the succeeding statements of taxation, the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under "Racing Taxation" instead of under "Stamp Duties" and "Licences," respectively.

## STATE REVENUE FROM TAXATION—TOTAL COLLECTIONS, 1931-32.

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total, All States.
	£	£	£	£	£	£	£
Probate and Succession Duties	1,251,650	1,014,669	424,522	323,008	63,162	86,764	3,163,775
Stamp Duties .. .. .	843,986	639,578	418,205	164,708	189,174	137,876	2,393,527
Land .. .. .	2,453	497,609	346,054	434,544	152,368	95,916	1,508,954
Income and Dividend .. .. .	3,411,146	2,061,561	1,652,329	1,484,066	436,767	242,347	9,288,216
Unemployment Relief .. .. .	5,799,519	1,650,492	1,089,645	(b)	(a)	(a)	8,539,656
Family Endowment .. .. .	930,264	..	..	..	..	..	930,264
Licences—							
Liquor .. .. .	326,834	270,076	86,327	19,419	53,643	15,590	771,889
Other .. .. .	44,614	77,650	38,509	30,486	5,034	15,548	211,841
Lotteries .. .. .	..	..	22,000	..	901	193,681	216,582
Racing .. .. .	551,561	212,375	98,347	40,477	65,820	8,119	976,699
Motor .. .. .	1,617,387	1,124,362	519,467	499,704	278,816	93,567	4,133,303
Entertainments .. .. .	55,174	159,719	..	77,396	56,603	16,307	365,199
Other .. .. .	20,718	1,603	66,465	2,566	(c) 157,271	..	248,623
<b>Total .. .. .</b>	<b>14,855,306</b>	<b>7,709,694</b>	<b>4,761,880</b>	<b>3,076,374</b>	<b>1,439,559</b>	<b>905,715</b>	<b>32,748,528</b>

(a) No special unemployment relief tax collected. (b) Unemployment relief tax included with income tax; see (f) following. (c) Includes Hospital Tax, £134,561 (6s. 5d. per head). (d) Includes Income Tax on Lotteries, £127,181 (11s. 7d. per head).

The table hereunder shows the percentages of collections under individual taxes on the total taxation revenue for the year 1931-32.

## STATE REVENUE FROM TAXATION.—PERCENTAGES ON TOTAL, 1931-32.

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
Probate and Succession Duties	8.4	13.2	8.9	10.5	4.4	9.6	9.6
Stamp Duties .. .. .	5.7	8.3	8.8	5.4	13.1	15.2	7.3
Land .. .. .	..	6.4	7.3	14.1	9.2	10.6	4.6
Income and Dividend .. .. .	23.0	26.7	34.7	48.2	30.3	26.8	28.3
Unemployment Relief .. .. .	39.0	21.4	22.9	..	..	..	26.1
Family Endowment .. .. .	6.3	..	..	..	..	..	2.8
Licences—							
Liquor .. .. .	2.2	3.5	1.8	0.6	3.7	1.7	2.4
Other .. .. .	0.3	1.0	0.8	1.0	0.4	1.7	0.7
Lotteries .. .. .	..	..	0.5	..	0.1	21.4	0.7
Racing .. .. .	3.7	2.8	2.0	1.3	4.6	0.9	3.0
Motor .. .. .	10.9	14.6	10.9	16.3	19.4	10.3	12.6
Entertainments .. .. .	0.4	2.1	..	2.5	3.9	1.8	1.1
Other .. .. .	0.1	..	1.4	0.1	10.9	..	0.8
<b>Total .. .. .</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>



Prior to Federation, duties of Customs and Excise constituted the principal source of revenue from taxation. At present, the most productive State tax is the income tax. In addition to these, a State land tax and licence fees of various kinds are collected in all the States, while a dividend tax is levied in Western Australia and a family endowment tax is imposed in New South Wales.

The total amounts and the amounts per head raised from all sources of taxation by the several State Governments, including amounts not paid into the Consolidated Revenue Fund, during the five years ended 1931-32 are given in the following table:—

## STATE REVENUE FROM TAXATION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1927-28	13,217,001	7,213,507	5,362,964	3,736,223	1,587,920	1,134,528	32,252,143
1928-29	13,604,187	7,192,115	5,128,170	3,767,994	1,721,833	1,111,533	32,525,832
1929-30	15,148,398	7,426,295	4,795,240	3,487,815	1,846,333	1,119,722	33,823,803
1930-31	16,190,756	8,104,229	5,468,777	3,399,942	1,524,846	1,071,263	35,759,813
1931-32	14,855,306	7,709,694	4,761,880	3,076,374	1,439,559	995,715	32,748,528

## PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1927-28	5 10 2	4 2 10	5 19 1	6 10 0	4 1 0	5 7 8	5 3 9
1928-29	5 11 3	4 1 9	5 11 10	6 10 2	4 4 10	5 4 6	5 2 11
1929-30	6 2 4	4 3 7	5 2 10	6 0 3	4 8 9	5 4 2	5 5 9
1930-31	6 9 6	4 10 6	5 15 3	5 16 10	3 12 7	4 18 3	5 10 9
1931-32	5 17 10	4 5 7	4 18 9	5 5 2	3 8 4	4 2 0	5 0 7

(a) Based on mean population of each financial year.

Taking the States as a whole, taxation decreased by 3s. 2d. per head during the period 1927-28 to 1931-32, New South Wales and Victoria alone showing increases of 7s. 8d. and 2s. 9d. respectively. Substantial decreases were recorded in South Australia (£1 4s. 10d.); Tasmania (£1 5s. 8d.); Queensland (£1 os. 4d.), and Western Australia (12s. 8d.) per head of population. These decreases, however, were due to lower taxpaying capacity and not to reduced imposts.

(b) *Probate and Succession Duties.* Probate duties have been levied for many years in all the States, but the provisions of the Acts governing the payment of duty differ widely both in regard to the ordinary rates and those which apply to special beneficiaries. A table showing the values of the estates in which probates and letters of administration were granted is given later. (See Chapter XV., Private Finance, Section F.)

The duties collected for the last five financial years are as follows :—

## STATE PROBATE AND SUCCESSION DUTIES.—COLLECTIONS.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
New South Wales ..	1,596,804	1,816,927	1,860,052	1,496,641	1,251,650
Victoria ..	1,117,164	1,079,840	1,133,422	1,131,603	1,014,669
Queensland ..	556,456	524,135	491,892	528,129	424,522
South Australia ..	327,940	329,924	395,082	254,264	323,008
Western Australia ..	81,452	82,469	75,707	72,093	63,162
Tasmania ..	99,640	74,812	65,991	78,275	86,764
Total ..	3,779,456	3,908,107	4,022,146	3,561,005	3,163,775

(c) *Other Stamp Duties.* The revenue derived from stamp duties (exclusive of probate and succession duties and stamp duties on betting tickets) for the past five years is shown in the accompanying table :—

## STATE STAMP DUTIES.—COLLECTIONS.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
New South Wales ..	1,552,117	1,586,776	1,362,147	931,308	843,986
Victoria ..	1,005,957	1,017,908	985,088	704,958	639,578
Queensland ..	558,970	575,809	555,391	442,149	418,205
South Australia ..	445,517	469,861	379,546	285,915	164,708
Western Australia ..	263,871	291,400	255,725	170,949	189,174
Tasmania ..	62,267	62,623	64,929	114,401	137,876
Total ..	3,888,699	4,004,377	3,602,826	2,649,680	2,393,527

(d) *Land Tax.* All the States impose a land tax, although Queensland, the last State to fall into line, collected its first levy in 1915-16. In the other States the impost is of long standing. In New South Wales the State land tax is levied on the unincorporated portion of the western division of the State only.

The following table shows the amount collected by means of such taxes during the financial years 1927-28 to 1931-32 :—

## STATE LAND TAX.—COLLECTIONS.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
New South Wales ..	2,744	2,870	2,588	2,486	2,453
Victoria ..	560,013	560,765	531,426	506,025	497,609
Queensland ..	531,940	569,551	556,532	503,656	346,064
South Australia ..	458,222	452,994	440,265	486,505	434,544
Western Australia ..	162,906	196,301	219,066	168,579	132,368
Tasmania ..	97,494	99,384	99,453	97,963	95,916
Total ..	1,813,319	1,881,865	1,849,330	1,765,214	1,508,954

(e) *Income Tax.* A tax on the incomes of persons, whether derived from personal exertion or from property, is also imposed in all the States. As might be expected, the rates, exemptions, etc., are widely divergent, but the general principles of the several Acts are similar. The Dividend Duties Act of Western Australia supplied to a certain extent the place of an income tax in that State in former years, but, with the increasing demands upon the Treasury, the levying of a direct income tax was found necessary.

The following table shows the total amount collected in the several States during the years 1927-28 to 1931-32. In the case of Western Australia the amount of dividend duty collected is included. The tax levied on prizes in lotteries although coming within the Income Tax class has been excluded from the amounts given below.

## STATE INCOME AND DIVIDEND TAXES.—COLLECTIONS.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
New South Wales .. ..	6,382,467	7,343,049	7,084,465	6,183,481	3,411,146
Victoria .. ..	3,035,014	2,881,917	2,981,050	2,659,585	2,061,561
Queensland .. ..	3,041,302	2,714,764	2,405,810	2,522,300	1,652,329
South Australia .. ..	1,803,829	1,735,922	1,507,375	1,802,176	1,484,066
Western Australia .. ..	648,537	644,836	751,116	562,695	436,767
Tasmania .. ..	280,377	309,165	322,098	302,925	242,347
Total .. ..	15,191,526	15,629,653	15,051,914	14,033,162	9,288,216

(f) *Unemployment Relief Tax.* During 1930-31 a special unemployment relief tax was levied in New South Wales, Victoria and Queensland. In South Australia portion of the moneys for expenditure on unemployment relief was raised by an increment in the rate of income tax. In Western Australia and Tasmania no special tax for this purpose was raised. Further references to this matter are included in the Chapter dealing with Labour, Wages and Prices.

(g) *Motor Taxation.* Motor taxation comprises tax and registration fees on motor vehicles; licences of motor dealers, motor drivers and motor cycle riders, and public vehicles except when controlled by local government authorities. The following table shows the collections for the past five years:—

## MOTOR TAXATION.—COLLECTIONS.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
New South Wales .. ..	1,478,986	1,710,453	1,807,376	1,669,969	1,617,387
Victoria .. ..	957,945	1,103,718	1,196,831	1,118,170	1,124,362
Queensland .. ..	403,956	477,310	523,881	519,108	519,467
South Australia .. ..	a 539,481	a 623,587	a 620,627	461,955	499,704
Western Australia .. ..	215,567	265,059	314,300	286,140	278,816
Tasmania .. ..	68,916	80,296	89,791	95,370	93,567
Total .. ..	3,664,851	4,260,423	4,552,806	4,150,712	4,133,303

(a) Includes motor spirit tax.

In all the States except Tasmania, the proceeds of Motor Tax and Motor Registration Fees, which latter are included herein, are now paid into a special roads fund and the amounts do not appear in the Consolidated Revenue Fund. In New South Wales a proportion of the collections is however retained and paid to Consolidated Revenue as an offset against administrative charges.

(iii) *Business Undertakings*—(a) 1931-32. A very large proportion of State revenues is made up of receipts from public works and services under the control of the Governments. The principal of these are railways and tramways, harbour works, and water supply and sewerage, while, in addition, State batteries for the treatment of auriferous ores exist in Western Australia, and various minor revenue-producing services are rendered by the Governments of all States. For the year 1931-32 the revenue from these sources was £50,887,799, or 52 per cent. of the revenue from all sources. Details of revenue are as follow:—

## STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Railways and tramways	618,306,244	49,256,358	45,936,501	2,759,693	3,183,977	4380,117	39,822,890
Harbour services ..	6832,187	52,464	74,363	523,081	279,620	..	1,761,715
Water supply and sewerage ..	(d) 3,069,344	6644,038	..	888,276	587,376	..	5,189,034
Other ..	1,119,081	1,791,262	177,900	427,356	500,276	698,285	4,114,160
Total ..	23,326,856	11,744,122	6,188,764	4,598,406	4,551,249	478,402	50,887,799

(a) Railways only. (b) Water supply only. (c) Not paid into Consolidated Revenue. See C. § 1 (2). (d) Portion only of this amount is paid to Consolidated Revenue Fund. (e) Excludes electricity supply.

As mentioned on a previous page the particulars shown above for New South Wales railways and tramways do not include a sum of £800,000, recouped to Railways Commissioners from Consolidated Revenue in respect of losses on operating country developmental railways.

(b) 1927-28 to 1931-32. Particulars of the revenue from Business Undertakings for the past five years are given below.

## STATE REVENUE FROM BUSINESS UNDERTAKINGS.(a)

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Railways and Tramways ..	52,778,799	52,764,377	48,606,108	40,943,417	39,822,890
Harbour Services ..	2,639,429	2,277,611	2,120,023	1,742,907	1,761,715
Water Supply and Sewerage ..	4,079,036	5,188,584	5,185,780	5,008,555	5,189,034
Other ..	5,172,386	5,493,876	4,868,376	4,388,903	4,114,160
Total ..	64,669,650	65,724,448	60,780,287	52,083,782	50,887,799

(a) See notes to previous table.

During the quinquennium the total revenue from Business Undertakings decreased by 22.3 per cent., Railways and Tramways showing a decrease of 24.6 per cent. and Harbour Services 33.2 per cent. Revenue from Water Supply and Sewerage Services increased by 27.2 per cent.

(iv) *Territorial.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. Where the rentals received are for lands held for pastoral or residential purposes such application of the revenue would appear justifiable. On the other hand, where the rentals are for mineral and timber lands, and in all cases of sales of lands, the proceeding is essentially a disposal of capital to defray current expenses, and is, therefore, open to criticism. The following table gives the revenue from sales and rentals of Crown lands for the year 1931-32 :—

## STATE TERRITORIAL REVENUE, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Sales ..	35,911	14,004	..	17,377	7,441	13,671	88,404
Rentals ..	1,630,857	172,681	1,089,358	142,614	232,961	26,918	3,295,389
Forestry ..	48,192	70,040	78,155	..	52,220	8,551	257,158
Total ..	1,714,960	256,725	1,167,513	159,991	292,622	49,140	3,640,951

(v) *Commonwealth Payments.* The payments to the States (inclusive of special grants but excluding the contributions in respect of sinking fund on States' Debts and Federal Aid Roads grants) represent in each instance a considerable proportion of the States' revenue, and for the year 1931-32 aggregated £9,134,912, or 9 per cent. of the total revenue of the States.

(vi) *Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc., which for the year 1931-32 aggregated £9,499,316. Of this amount, interest (mainly from loans to local governing bodies and on public account balances) was responsible for £4,802,853.

## Division II.—Expenditure.

**1. General.**—The principal heads of State expenditure from Consolidated Revenue Funds are :—

- (a) Interest and sinking funds in connexion with public debt; (b) Working expenses of railways and tramways; (c) Justice; (d) Police; (e) Penal establishments; (f) Education; (g) Medical and charitable expenditure; and (h) All other expenditure.

Generally, the working expenses of Railways and Tramways were the most important item in Governmental expenditure. For four years prior to 1931-32 expenditure on these services represented about 35 per cent. of the total. In 1930-31 the decreased revenue necessitated considerable curtailment of services, which, together with staff reductions and other economies, reduced the expenditure as compared with the previous year by £7,476,395 to £34.3 millions or 29 per cent. of the total expenditure. The effect of further economies in 1931-32 is shown in the reduction of expenditure by £3,276,049 (11 per cent.) as compared with the previous year. For 1931-32 Public Debt charges represented 40 per cent. of the total expenditure; next in importance was Education, 8 per cent.; Charitable, 5 per cent.; Law and Order, 4 per cent.; and Public Health and Hospitals, 3 per cent.

2. Total Expenditure.—The total expenditure from Consolidated Revenue Funds in the several States, and the expenditure per head of population during each of the past five years are given in the table hereunder—

## STATE EXPENDITURE.—CONSOLIDATED REVENUE FUNDS.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL.</b>							
	£	£	£	£	£	£	£
1927-28	48,857,763	27,521,270	16,707,564	11,621,834	9,834,415	2,867,605	117,410,451
1928-29	50,470,660	28,104,947	16,902,145	11,771,772	10,223,919	2,855,977	120,329,420
1929-30	52,167,117	28,496,712	16,721,055	12,176,840	10,268,519	2,981,992	122,812,235
1930-31	48,916,654	28,029,702	15,914,696	12,539,668	10,107,295	2,854,394	118,362,409
1931-32	51,730,689	26,163,594	15,069,293	11,545,336	9,593,212	2,657,109	116,759,233

## PER HEAD OF POPULATION.(b)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1927-28 ..	20 7 3	15 16 2	18 11 1	20 4 4	25 1 7	13 12 1	18 17 7	9
1928-29 ..	20 12 8	15 19 4	18 8 6	20 6 9	25 4 0	13 8 7	19 0 9	9
1929-30 ..	21 1 4	16 0 8	17 18 8	21 0 0	24 13 10	13 17 4	19 3 11	11
1930-31 ..	19 11 6	15 13 0	16 15 4	21 10 11	24 1 4	13 1 8	18 6 6	6
1931-32 ..	20 10 9	14 10 5	15 12 6	19 14 10	22 15 2	12 0 6	17 18 7	7

(a) Includes expenditure of certain moneys not paid into Consolidated Revenue, such as receipts from Railways, Tramways, Sydney Harbour Trust, certain Water Supply and Sewerage Services, and motor taxation in New South Wales and motor taxation in Victoria. (b) Based on mean population of each financial year.

Details of the expenditure for the year 1931-32 are given in the next table.

3. Details of Expenditure for 1931-32.—The following table shows the total expenditure and expenditure per head under each of the principal items:—

## STATE EXPENDITURE.—DETAILS, 1931-32.

Particulars.	N.S.W. (c)	Victoria. (c)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL.</b>							
	£	£	£	£	£	£	£
Public debt (interest, sinking fund, etc.)	120,394,130	9,157,032	6,437,691	5,455,414	4,142,345	1,284,004	46,870,616
Railways and Tramways (working expenses) ..	415,579,401	45,982,224	44,372,800	42,064,144	2,335,166	4,393,673	30,727,408
Water Supply and Sewerage (f) ..	9804,846	210,908	415,284	278,320	227,637	..	1,536,995
Justice ..	526,538	212,696	154,591	61,045	56,972	31,541	1,043,383
Police ..	1,430,033	783,390	499,330	294,244	207,653	80,505	3,295,155
Penal establishments ..	332,159	97,559	29,809	42,829	26,018	11,213	539,587
Education ..	4,177,892	2,404,065	1,423,927	869,218	614,254	253,818	9,803,174
Medical and charitable ..	3,059,679	2,879,384	942,173	1,381,391	1,050,065	229,782	9,542,474
All other expenditure ..	5,426,011	4,376,336	1,193,688	1,098,731	933,102	372,573	13,400,441
Total ..	51,730,689	26,163,594	15,069,293	11,545,336	9,593,212	2,657,109	116,759,233

(a) Including 9.79 miles of electric tramways operated by the Victorian Railways. (b) Railways only. (c) Includes expenditure of certain moneys not paid into Consolidated Revenue, see note (a) to previous table. (d) Excludes £800,000 paid from Consolidated Revenue Fund on account of losses on country developmental railways. (e) Water Supply and Irrigation Commission only. (f) Includes Water Conservation and Irrigation—New South Wales, £118,089, and South Australia, £85,902. (g) Portion only from Consolidated Revenue Fund. (h) Based on mean population of the financial year. (i) Includes portion of interest and other charges in respect of 1930-31.

STATE EXPENDITURE.—DETAILS, 1931-32—*continued.*

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
PER HEAD OF POPULATION.(h)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Public debt (interest, sinking fund, etc.)	8 1 11	5 1 8	6 13 6	9 6 7	9 16 7	5 16 2	7 4 0
Railways and Tramways (working expenses)	6 3 8	3 6 5	4 10 8	3 10 7	5 10 9	1 15 8	4 14 4
Water Supply and Sewerage	0 6 5	0 2 4	0 0 4	0 9 6	0 10 10	..	0 4 9
Justice	0 4 2	0 2 4	0 3 3	0 2 1	0 2 8	0 2 10	0 3 2
Police	0 11 4	0 8 8	0 10 4	0 10 1	0 9 10	0 7 3	0 10 1
Penal establishments	0 2 8	0 1 1	0 0 8	0 1 5	0 1 3	0 1 0	0 1 8
Education	1 13 2	1 7 4	1 9 6	1 9 9	1 9 2	1 3 0	1 10 1
Medical and charitable	1 4 4	1 12 0	0 19 6	2 7 3	2 9 10	1 0 10	1 9 4
All other expenditure	2 3 1	2 8 7	1 4 9	1 17 7	2 4 3	1 13 9	2 1 2
Total	20 10 9	14 10 5	15 12 6	19 14 10	22 15 2	12 0 6	17 18 7

For footnote (h) see previous page.

## Division III.—Surplus Revenue.

The following table shows for each of the years 1927-28 to 1931-32 the amount and amount per head of the surplus or deficit of each State.

## STATE SURPLUS REVENUE.

Year.	N.S.W.(a)	Victoria.(a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1927-28 ..	-860,391	-163,353	10,506	-274,931	-26,466	95,082	-1,219,553
1928-29 ..	-23,560	51,087	-176,463	-930,858	-275,968	-80,543	-1,445,305
1929-30 ..	-5,262,228	-1,172,870	-723,185	-1,625,824	-518,004	-25,720	-9,327,831
1930-31 ..	<i>b</i> -7,995,782	-2,454,198	-842,044	-1,813,857	-1,420,539	-245,104	-14,771,524
1931-32 ..	<i>c</i> -13,095,557	-1,608,322	-2,075,180	-1,063,360	-1,557,896	-271,614	-19,671,929

## PER HEAD OF POPULATION.(d)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1927-28 ..	-0 7 2	-0 1 11	0 0 2	-0 9 7	-0 1 5	0 9 0	-0 3 11
1928-29 ..	-0 0 2	0 0 7	-0 3 10	-1 12 2	-0 13 8	-0 8 5	-0 4 7
1929-30 ..	-2 2 6	-0 13 3	-0 15 6	-2 16 1	-1 4 11	-0 2 5	-1 9 2
1930-31 ..	-3 4 0	-1 7 5	-0 17 9	-3 2 4	-3 7 8	-1 2 6	-2 5 9
1931-32 ..	-5 4 0	-0 17 10	-2 3 0	-1 16 4	-3 13 11	-1 4 7	-3 0 5

NOTE.—Minus sign (—) indicates deficit.

(a) After allowing for payments into and expenditure from certain special funds. (b) Excludes £1,672,222 interest, etc., paid by Commonwealth Government on behalf of New South Wales and which is included in New South Wales expenditure for 1931-32. (c) See letterpress following. (d) Based on mean population of each financial year.

The Budget deficit disclosed by the New South Wales Treasurer in his financial statement for 1931-32 was £14,227,844 (£5 13s. per head). The following is a reconciliation between that figure and the amount shown above :—

				£
Revenue <i>vide</i> page 410	..	..	..	38,635,132
Expenditure <i>vide</i> page 417	..	..	..	51,730,689
				<hr/>
Deficit <i>vide</i> page 418	..	..	..	13,095,557
Deficit, Unemployment Relief Fund	..	..	..	63,196
Deficit, Family Endowment Fund	..	..	..	1,068,085
				<hr/>
Total	..	..	..	14,226,838
Add Surplus of Metropolitan Board of Water Supply and Sewerage	..	..	..	1,006
				<hr/>
Deficit <i>vide</i> Treasurer's Statement	..	..	..	14,227,844
				<hr/>

### § 3. State Trust Funds.

1. *Nature.*—In addition to the moneys received as revenue and paid to the credit of their respective Consolidated Revenue Funds, considerable sums are held by the State Governments in trust for various purposes. Municipal sinking funds placed in the hands of the Governments are paid to the credit of the appropriate Trust Fund. In all the States except New South Wales, where the practice is confined to those companies transacting workers' compensation insurance, life assurance companies operating are required to deposit a substantial sum in cash or approved securities with the Government, and these deposits help to swell the trust funds. Various other deposit accounts, superannuation funds, suspense accounts, etc., also find a place. The trust funds have at various times enabled the several State Treasurers to tide over awkward financial positions, but the propriety of allowing deficits to be liquidated in this manner is open to question.

2. *Extent.*—The amount of trust funds held on the 30th June, 1932, was as follows :—

#### STATE TRUST FUNDS, 30th JUNE, 1932.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Amount of trust funds	25,163,347	6,333,663	2,074,562	1,461,501	7,255,410	635,978	42,924,261

### § 4. State Loan Funds.

#### Division I.—Loan Expenditure.

1. *General.*—As far back as the year 1842, revenue collections were supplemented with borrowed moneys, the earliest loan being by New South Wales for the purpose of assisting immigration, at rates of interest varying from 2½d. to 5½d. per £100 per diem, or approximately from 4¼ per cent. to 8 per cent. per annum. Australian public



borrowing, however, is mainly due to the fact that the State Governments, in addition to ordinary administrative duties, undertake functions which in other countries are usually entrusted to local authorities or left to private enterprise. Foremost amongst these are the construction and control of the railway systems, but loan moneys have largely been used for improvements to harbours and rivers, and the construction of water supply and sewerage works. The State loan expenditure and public debt thus differ very materially from those of most European countries, and from those of the Commonwealth, where such expenditure was very largely incurred for purposes of defence, or in the prosecution of war. As shown above, the State debts consist chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and are to a very large extent represented by tangible assets.

2. Loan Expenditure, 1931-32.—For the year ended 30th June, 1932, State net expenditure from loan funds (inclusive of revenue deficits charged to loan and Treasury Bills retired) was £5,760,963. Details for the year for each State are given in the following table:—

## STATE NET LOAN EXPENDITURE, 1931-32.

Heads of Expenditure.	N.S.W.	Victoria. (a)	Q'land. (c)	S. Aust.	W. Aust.	Tasmania (b)	Total.
	£	£	£	£	£	£	£
Railways .. ..	1,052,137	..	50,275	Cr. 127,576	137,025	Cr. 15,008	1,096,853
Tramways .. ..	Cr. 1,468	..	..	Cr. 338,493	..	..	Cr. 39,901
Water Supply ..	463,715	336,122	Cr. 442,306	119,788	435,603	..	1,312,922
Sewerage .. ..	48,069	87,342	..	140,792	64,548	..	260,751
Water Conservation, &c. .. ..	385,858	..	33,804	36,190	(f)	..	455,852
Harbours, Rivers, and Lighthouses ..	56,744	1,068	Cr. 1,084	97,611	77,490	..	9,010
Roads and Bridges ..	1,277,072	68,917	90,642	Cr. 36,471	..	..	1,640,999
Public Buildings (other than State Schools) .. ..	50,264	1,547	..	7,142	..	1,292	..
State Schools ..	41,998	Cr. 20,140	..	9,076	..	Cr. 362	..
Immigration ..	Cr. 219	..	..	..	500	..	281
Development of Mines and Mineral Re- sources .. ..	..	Cr. 6,952	Cr. 2,131	..	22,886	..	13,803
Agricultural Bank ..	..	..	Cr. 51,699	..	..	..	Cr. 51,699
Advances to Settlers	Cr. 225	13,086	..	213,021	..	9,631	..
Land Purchased for Settlement .. ..	..	62,991	63,291	808	431,604	..	794,207
Soldier Settlement ..	..	Cr. 67,665	Cr. 31,019	Cr. 55,598	Cr. 32,809	5,939	Cr. 181,152
Loans to Local Bodies	..	Cr. 8,257	Cr. 99,351	Cr. 3,765	546	Cr. 16,373	Cr. 127,200
Rabbit-proof Fencing	Cr. 442	12,292	Cr. 16,297	Cr. 3,394	Cr. 59	..	Cr. 7,900
Electricity Supply ..	23,013	586,337	..	..	3,681	Cr. 4,701	608,330
Other Public Works and Purposes ..	Cr. 9,373	15,536	Cr. 235,372	Cr. 72,393	126,850	36,826	Cr. 137,836
<b>Total .. ..</b>	<b>3,387,143</b>	<b>1,002,224</b>	<b>Cr. 206,351</b>	<b>h286,828</b>	<b>1,267,865</b>	<b>26,254</b>	<b>5,763,963</b>
Revenue Deficit ..	..	..	..	Cr. 3,000	..	..	Cr. 3,000
<b>Grand Total ..</b>	<b>3,387,143</b>	<b>1,002,224</b>	<b>Cr. 206,351</b>	<b>h283,828</b>	<b>1,267,865</b>	<b>26,254</b>	<b>5,760,963</b>

(a) Expenditure from Loan and on account of Loan; includes expenditure from Public Account Advances Account, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Excludes £70,200 premiums, &c., in connexion with the 1931 Conversion Loan. (c) £100,000 portion of repayments to loan, was transferred to Consolidated Revenue and applied to Sinking Fund contributions. (d) Includes Loans to Local Bodies for Water Supply and Sewerage. (e) Country towns. (f) Included with Water Supply. (g) Loans to Local Bodies for Tramways. (h) Credits allowed for of £263,799 arising from cancellation of securities redeemed from Sinking Fund.

3. Loan Expenditure, 1927-28 to 1931-32.—The following table gives the loan expenditure during each of the years 1927-28 to 1931-32 :—

## STATE NET LOAN EXPENDITURE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1927-28	14,407,619	9,016,208	3,198,506	3,882,268	4,680,260	377,777	35,562,638
1928-29	14,249,082	7,225,704	2,141,653	3,536,422	4,372,269	348,818	31,873,948
1929-30	10,878,627	6,467,067	1,295,866	2,493,287	3,693,052	146,853	24,974,752
1930-31	5,951,488	3,552,767	727,317	464,541	1,759,263	209,137	12,664,513
1931-32	3,387,143	1,002,224	Cr. 206,351	286,828	1,267,865	26,254	5,763,963

## PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1927-28	6 0 0	4 17 5	3 11 0	6 15 1	11 18 3	1 15 10	5 12 8
1928-29	5 16 6	4 1 0	2 6 8	6 2 2	10 15 6	1 12 10	5 0 5
1929-30	4 7 10	3 7 11	1 7 10	4 6 0	8 17 7	0 13 8	3 16 9
1930-31	2 7 8	2 5 2	0 15 4	0 16 0	4 3 9	0 19 2	2 0 9
1931-32	1 6 11	0 11 2	Cr. 0 4 3	0 9 10	3 0 2	0 2 4	0 17 8

The loan expenditure per head of population varies in the different States and in different years, reaching its highest point for the five years under review in Western Australia in 1927-28 with £11 18s. 3d. per head, and its lowest in Queensland in 1931-32 when repayments exceeded expenditure by £206,351 or 4s. 3d. per head.

4. Loan Expenditure Financial Agreement Act.—The figures shown hereunder for States' Net Loan Expenditure as defined in the *Financial Agreement Act*, 1928, are exclusive of expenditure in connexion with the conversion, renewal or redemption of loans, and represent gross other loan expenditure less any amounts of such expenditure repaid to the State other than moneys repaid to the State in the manner stated in Part II., Clause 4 (e) or Part III., Clause 3 (i) of the said Act.

## STATE NET LOAN EXPENDITURE—FINANCIAL AGREEMENT ACT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total, All States.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1927-28 .. ..	13,760	9,016	4,188	6,509	4,680	400	38,553
1928-29 .. ..	16,093	7,226	3,332	5,325	4,372	349	36,897
1929-30 .. ..	9,398	6,467	2,811	4,621	3,693	147	27,137
1930-31 .. ..	6,152	3,553	1,852	1,462	1,759	209	14,987
1931-32 .. ..	4,032	2,042	1,162	1,505	1,380	96	10,217
Annual Average	9,887	5,661	2,669	3,924	3,177	240	25,558

5. Total Loan Expenditure to 30th June, 1932.—The total loan expenditure inclusive of revenue deficits, etc., of the States from the initiation of borrowing to the 30th June, 1932, amounted to £792,014,856. The purposes for which this sum was expended are shown in the following table :—

## TOTAL STATE LOAN EXPENDITURE TO 30th JUNE, 1932.

Heads of Expenditure.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Railways .. ..	138,411,296	73,929,260	61,680,964	32,042,091	23,860,653	6,918,344	353,694,912
Tramways .. ..	12,284,831	..	..	63,476,811	1,090,662		
Telegraphs and Tele- phones .. ..	1,762,095	..	524,387	991,772	332,293	142,410	3,752,957
Water Supply .. ..	23,807,951	27,759,298	4,971,430	12,918,747	8,003,519	..	96,032,986
Sewerage .. ..	13,657,118	d205,623		2,631,438	2,077,862	..	
Water Conservation ..	14,403,025	(e)	2,242,162	7,711,620	(e)	..	24,356,807
Harbours, Rivers, and Lighthouses .. ..	22,478,672	1,332,325	2,415,440	7,706,858	5,874,391	6,779,718	82,030,782
Roads and Bridges ..	16,209,754	11,727,876	2,380,415	3,149,536	1,975,797		
Defence .. ..	1,457,536	149,323	..	..	..	128,224	2,026,698
Public Buildings (ex- cluding State Schools)	12,258,852	1,160,822	3,396,381	1,339,097	1,565,337	1,143,180	28,334,640
State Schools .. ..		5,058,996		1,756,237		655,738	
Immigration .. ..	764,090	(f)	2,763,071	..	503,562	235,714	4,266,437
Development of Mines and Mineral Resources	..	520,421	1,874,581	..	2,519,149	..	4,914,151
Agricultural Bank ..	..	..	2,375,839	..	5,200,488	..	7,576,327
Advances to Settlers ..	1,935,708	2,708,172	2,872,132	2,655,526	11,523,781	749,300	44,831,091
Land Purchased for Settlement .. ..	8,707,755	11,998,884		1,679,833			
Soldier Settlement ..	..	27,105,767	1,630,993	8,654,540	7,966,586	2,646,544	48,004,430
Loans to Local Bodies	..	1,129,414	6,162,586	338,371	99,455	1,208,328	8,938,154
Rabbit-proof Fencing ..	382,881	684,784	317,436	250,409	328,703	..	1,964,213
Electricity Supply ..	1,197,835	17,839,227	..	..	1,185,862	3,841,843	24,064,767
Other Public Works and Purposes .. ..	49,153,149	2,511,182	9,166,488	10,233,081	6,705,238	1,776,401	39,545,539
<b>Total .. ..</b>	<b>278,872,548</b>	<b>185,821,374</b>	<b>104,774,305</b>	<b>97,827,582</b>	<b>80,813,338</b>	<b>26,225,744</b>	<b>774,334,891</b>
Treasury Bills Retired	..	..	4,185,338	3,860,089	..	..	12,417,381
Revenue Deficits .. ..	..	3,875,682			..	..	
Deficits on Loans .. ..	..	..	5,192,384	..	..	970,200	5,262,584
<b>Grand Total .. ..</b>	<b>278,872,548</b>	<b>189,697,056</b>	<b>114,152,027</b>	<b>101,687,671</b>	<b>80,813,338</b>	<b>26,792,216</b>	<b>792,014,856</b>

(a) Includes Industrial Undertakings, Grain Elevators, &c. (b) Loans to Local Bodies for Tramways.  
(c) Includes advances to Closer Settlement Account, £1,256,300. (d) Country Sewerage. (e) Included  
with Water Supply. (f) Immigration Bureau £20,000, included with Public Buildings. (g) Premiums,  
&c., in connexion with 1931 Conversion Loan.

The figures in the table show the amounts actually spent, and differ from those given later in the statements relating to the public debt, which represent the amount of loans still unpaid. The statement above includes all expenditure, whether the loans have been repaid or are still in existence. In the public debt statement, however, loans repaid are not included, and in the case of loans still outstanding, each is shown according to the amount repayable at maturity, and not according to the amount originally available for expenditure.

## Division II.—State Public Debts.

1. General.—The first government loan raised in Australia was obtained by New South Wales in 1842. This and nine other loans prior to 1855 were all procured locally. In the last-mentioned year, Australia approached the London market, the occasion being the placing of the first instalment of the New South Wales 5 per cent. loan for £683,300. Victoria first appeared as a borrower in 1854, and made its first appearance on the London market in 1859. In the other States the first public loans were raised in the following years:—Queensland 1861, South Australia 1856, Western Australia 1845, and Tasmania 1867.

2. *State Debts, 1928 to 1932.*—The table hereunder shows the State public debts and the amounts owing per head of population at the 30th June in each year from 1928 to 1932 inclusive. The totals include sums advanced by the Commonwealth to the States for settling returned soldiers on the land, and for this reason they differ in some cases from those given in previous issues. On the transfer of the Queensland State Savings Bank business to the Commonwealth Bank in 1920, Queensland Government securities were handed to the latter for the Savings Bank current account credit balance and for amounts owing on account of Advances to Settlers and Workers' Dwellings. This transaction added a total of £5,936,916 to the Public Debt without involving any additional borrowing. Repayments reduced this amount at 30th June, 1932, to £2,827,813.

As provided in the *Financial Agreement Act 1928* (particulars of which are given in Chapter I, pages 21 to 32), the Commonwealth Government on 1st July, 1929, assumed, as between Commonwealth and States, the liabilities of the States to bondholders in respect of the debts of the States existing at 1st July, 1929, and taken over by the Commonwealth. Reference is made in Chap. XII. of this volume to certain remissions which the Commonwealth Government has agreed to make to the States on account of losses sustained by the States in connexion with soldier land settlement. These remissions which have been legally ratified, reduced the States' debts at 30th June, 1926, by £5,000,000, and from 30th June, 1927, and onwards, by £7,597,783. The following figures which represents the total "face" or "book" value of the debt of States leaving out of account currency changes since the loans were floated have been adjusted on this account, and therefore differ from those given in earlier issues.

## STATE PUBLIC DEBTS.

Date.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
30th June, 1928	£'000 256,200,176	£'000 155,122,510	£'000 111,526,737	£'000 90,851,177	£'000 76,275,749	£'000 24,444,680	£'000 714,421,029
" 1929	267,701,161	153,828,692	112,742,868	92,884,174	69,336,660	22,315,212	718,808,707
" 1930	268,356,126	153,558,928	112,011,746	92,614,130	71,194,141	22,306,982	720,042,053
" 1931	285,556,834	163,797,724	112,093,956	98,722,459	76,564,885	22,983,932	759,719,790
" 1932	305,590,877	167,673,004	111,911,785	100,794,244	79,707,953	23,265,275	788,943,138

## PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
30th June, 1928	105 14 8	88 13 5	122 6 6	157 5 0	190 16 8	116 2 11	113 18 1
" 1929	108 14 3	87 0 7	121 12 2	160 16 2	168 8 0	105 0 2	113 0 2
" 1930	107 19 8	86 2 4	118 17 6	159 10 2	170 1 2	103 9 11	112 1 3
" 1931	113 18 0	91 2 7	116 16 4	169 3 3	182 0 7	104 17 9	117 2 2
" 1932	120 17 6	92 17 7	115 0 4	171 19 7	188 13 2	105 4 6	120 14 0

(a) Based on population at 30th June in each year.

The greatest increase in indebtedness was experienced in New South Wales, which added £49,390,701 during the period under review. The public debt of the whole of the States increased during the same period by £74,522,109, or at the rate of over £18,130,000 per annum. The debt per head of population rose during the quincentennial from about £114 to £120 14s. per head—an increase of about 6 per cent. The greatest advance was shown by New South Wales, where the rate per head rose by over £15, followed by South Australia with an increase of £14 14s. 7d., and Victoria with over £4. Queensland and Tasmania showed substantial decreases of £7 6s. 2d. and £10 18s. 5d. respectively, while for Western Australia the decrease amounted to £2 3s. 6d. per head.

3. **Place of Flotation of Loans.**—As pointed out previously, the early loans, usually for comparatively small amounts, were raised locally, but, with the increasing demand for loan funds and the more favorable terms offering in the London market, the practice of raising loans in London came into vogue, and for many years local flotations, except for short terms or small amounts, were comparatively infrequent. In more recent years, however, the accumulating stocks of money in Australia seeking investment have led to the placing of various redemption and other loans locally, with very satisfactory results. Moreover, certain loans have been placed in New York on account of all States. The following table gives particulars of loans outstanding on the 30th June, 1932, which had been floated abroad and in Australia respectively :—

**STATE PUBLIC DEBTS, 30th JUNE, 1932.—PLACE OF FLOTATION OF LOANS.**

State.	Floated Abroad.			Floated in Australia.	Grand Total.
	London.	New York.	Total Overseas.		
	£ Stg.	£ Gold.	£ (a)	£ Aust.	£ (a)
New South Wales	164,971,510	13,608,137	178,579,647	127,011,230	305,590,877
Victoria ..	64,059,788	4,648,084	68,707,872	98,965,132	167,673,004
Queensland ..	63,276,436	7,591,411	70,867,847	41,043,938	111,911,785
South Australia ..	43,760,156	1,785,678	45,545,834	55,248,410	100,794,244
Western Australia	46,064,358	2,094,935	48,159,293	31,548,660	79,707,953
Tasmania ..	13,620,237	235,282	13,855,519	9,409,756	23,265,275
<b>Total ..</b>	<b>395,752,485</b>	<b>29,963,527</b>	<b>425,716,012</b>	<b>363,227,126</b>	<b>788,943,138</b>

(a) Total "face" or "book" value of the debt of each State without adjustment on account of currency changes since the loans were floated.

Particulars of the aggregate debts of the States for the past five years showing the amounts which will mature overseas and in Australia respectively will be found on page 430.

The debt per head of population on the 30th June, 1932, was £120 14s. The amounts redeemable in London represented £60 10s. 11d. per head; in New York, £4 11s. 8d. per head; and in Australia, £55 11s. 5d. per head.

4. **Rates of Interest.**—(i) *At 30th June, 1932.* As mentioned previously, the highest rate of interest paid for the earliest State loans was 5½d. per £100 per diem, or, approximately, 8 per cent. per annum. At present the rates vary from 7 per cent. to 2.325 per cent., twenty-seven separate rates being involved. The average rate payable on the aggregate indebtedness is £4 6s. 10d. per cent. For the separate States the average varies, being lowest in the case of Tasmania and highest in that of New South Wales. The following table gives particulars of the amount of debt at each rate of interest payable, together with the amount and the average rate of interest payable at 30th June, 1932, with separate information for London, New York, and Australian maturities. The units of currency in this table are—for debts maturing and interest payable—

in London ..	£ sterling,
in New York ..	£ gold,
in Australia ..	£ Australian.

The totals given represent the total "face" or "book" value of the debts of each State without adjustment on account of currency changes since the loans were floated, and the nominal amount (and average rate) of interest payable taking no account of exchange.

STATE PUBLIC DEBTS.—RATES OF INTEREST PAYABLE AT 30th JUNE, 1932.

Rate of Interest.	Place of Maturity.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total, All States.
%		£	£	£	£	£	£	£
2.325	Australia	687,474	778,085	54,550	373,451	..	..	1,893,560
2.7125	"	291,514	445,296	365,865	207,457	78,135	..	1,388,317
2.90625	"	411,650	220,000	9,500	319,117	..	..	960,267
3.0	Australia	6,572,640	3,272,298	5,469,500	3,044,042	278,170	303,301	18,939,951
3.1	London	12,420,113	5,202,146	4,274,213	3,433,499	2,832,504	941,000	29,103,475
3.1	Australia	532,665	736,171	5,512,791	156,150	2,171,475	240,609	9,349,861
3.29375	"	..	..	..	..	2,000	2,000	2,000
3.4375	"	74,700	500	6,492,000	83,050	1,875,558	176,337	8,702,145
3.5	Australia	..	..	526,400	..	..	..	526,400
3.68125	London	16,569,952	8,616,095	6,000,000	5,909,711	9,184,401	4,156,500	50,436,659
3.75	Australia	..	80,730	..	500,000	..	..	580,730
3.75	London	..	..	2,000,000	789,400	888,608	..	3,678,008
3.875	Australia	3,138,820	21,128,688	1,649,512	2,594,615	2,001,659	111,130	30,624,424
4.0	Australia	85,171,380	61,563,413	15,720,720	39,432,333	21,819,305	7,519,589	231,226,740
4.0	London	20,014,242	2,962,116	6,000,000	6,064,222	5,962,436	3,800,000	44,803,016
4.06875	Australia	15,382,078	2,488,790	258,110	3,460,000	753,533	238,050	22,580,561
4.25	London	..	..	..	..	137,750	..	137,750
4.2625	Australia	14,065,081	4,333,711	2,185,540	2,917,495	919,042	350,000	24,770,869
4.45625	"	101,933	3,117,450	..	..	..	..	3,219,383
4.5	London	13,492,200	1,174,700	..	..	3,227,465	..	17,894,365
4.65	New York	3,892,839	836,207	1,123,395	..	..	..	5,852,441
4.75	Australia	577,910	800,000	..	2,152,200	1,401,733	200,000	5,131,843
5.0	London	..	5,999,000	..	..	..	..	5,999,000
5.0	Australia	48,397,408	33,218,082	39,220,523	21,603,024	20,202,649	2,584,987	165,226,673
5.0375	New York	9,715,298	3,811,877	2,300,339	1,785,678	2,094,935	235,282	19,943,409
5.25	Australia	3,035	..	2,789,460	8,000	250,000	..	3,319,235
5.5	London	17,870,500	..	..	..	..	..	17,870,500
5.5	"	2,980,400	6,887,649	3,781,700	..	..	..	13,649,749
5.75	"	17,262,190	..	..	..	1,049,993	..	18,312,183
6.0	London	9,527,090	..	2,000,000	2,977,800	2,716,302	..	17,221,192
6.0	New York	..	..	2,054,865	..	..	..	2,054,865
6.5	London	6,427,465	..	2,112,812	2,982,500	..	2,000,000	11,409,865
7.0	New York	..	..	9,990	..	..	..	2,112,812
(b)	Australia	350	..	..	500	..	..	10,840
(b)	London	9,950	..	..	..	..	..	9,950
Total Debt	Australia	127,011,230	98,965,132	41,043,938	55,248,410	31,548,660	9,409,756	363,227,126
	London	164,971,510	64,059,788	63,270,436	43,760,156	46,064,358	13,620,237	395,752,485
	New York	13,608,137	4,648,084	7,591,411	1,785,678	2,094,935	235,282	29,963,327
	Total	305,590,877	167,673,004	111,911,785	100,794,244	79,707,953	23,265,275	788,943,138
Interest payable	Australia	5,037,586	3,903,923	1,528,765	2,184,499	1,241,136	375,369	14,271,278
	London(a)	7,864,250	2,953,652	2,942,246	2,034,698	2,056,971	590,811	18,442,628
	New York	660,943	228,223	436,759	89,284	104,747	11,764	1,531,720
	Total	13,562,779	7,085,798	4,907,770	4,308,481	3,402,854	977,944	34,245,626
Average Rate of Interest payable	Australia	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
	London	3 19 4	3 18 11	3 14 6	3 19 1	3 18 8	3 19 9	3 18 7
	New York	4 15 4	4 12 3	4 13 0	4 13 0	4 9 4	4 6 9	4 13 3
	Total	4 17 2	4 18 2	5 15 1	5 0 0	5 0 0	5 0 0	5 2 3
	Total	4 8 9	4 4 6	4 7 8	4 5 6	4 5 5	4 4 1	4 6 10

(a) Includes contributions payable by Commonwealth and British Governments towards interest on Migration Loans.  
 (b) Overdue or unconverted.

The average rate of interest payable shows a very substantial decrease due to the internal debt conversion loan in July and August, 1931, which is referred to in the Appendix. The average rate for debt maturing in Australia has been reduced from £5 4s. 9d. per cent. in 1931 to £3 18s. 7d. per cent. in 1932. For debt maturing in London the average rate increased from £4 12s. 7d. per cent. in 1931 to £4 13s. 3d. in 1932, while for New York loans it fell from £5 2s. 6d. per cent. to £5 2s. 3d. per cent.

(ii) *Variations from 1901 to 1932.*—The variations in the rates of interest payable on the public debts of the States are shown in the following table which gives the percentages of the total debts in various interest groups during the years specified, and the average rate of interest in each year :—

**STATE PUBLIC DEBTS.—PERCENTAGES, ETC., IN VARIOUS INTEREST GROUPS.**

Interest Rates	Percentage of Total Debt at 30th June.				
	1901.	1912.	1922.	1931.	1932.
	%	%	%	%	%
Not exceeding 3 per cent.	18.0	17.0	9.1	5.3	6.6
Exceeding 3 per cent. but not exceeding 4 per cent. ..	78.5	82.9	39.1	17.2	48.2
Exceeding 4 per cent. but not exceeding 5 per cent. ..	3.1	0.1	14.1	36.8	10.8
Exceeding 5 per cent. but not exceeding 6 per cent. ..	0.4	..	29.9	38.4	32.7
Exceeding 6 per cent.	..	..	7.8	2.3	1.7
Total ..	100.0	100.0	100.0	100.0	100.0
Average Rate	3.7	4.0	4.6	4.9	4.3

5. *Dates of Maturity.*—Securities like the British Consols are interminable, but Australian debts have in most cases a fixed date for repayment, there being a few exceptions which are included in the following table under the headings "interminable," "Treasurer's option," and "not fixed." Those terminable at "Treasurer's option" include amounts which are payable by the respective Governments after giving a specified notice, and those "not fixed" consist of certain amounts owing to the Commonwealth Government. In most cases, at date of maturity renewal is effected in respect of the greater portion of the loan. In order to avoid application to the market at an unfavourable time, several States adopted the practice of specifying a period prior to the date of maturity within which the Government, on giving twelve, or in some cases six months' notice, has the option of redeeming the loan. The Government can, therefore, take advantage of opportunities that may offer during the period for favourable renewals. Particulars concerning the due dates of the State loans outstanding on the 30th June, 1932, are given in the following table, the various maturities being grouped according to years ending 30th June.

Where the Government has the option of redemption during a specified period the loan is classified according to the latest date of maturity.

STATE PUBLIC DEBTS.—LATEST DATE OF MATURITY OF AMOUNT  
OUTSTANDING ON 30th JUNE, 1932.

Year of Maturity (Ended 30th June).	Maturing in London.	Maturing in New York.	Total Maturing Overseas.	Maturing in Australia.	Grand Total.
	£ Stg.	£ Gold.	£ (a)	£ Aust.	£ (a)
1933 .. .. .	39,465,798	..	39,465,798	57,387,444	96,853,242
1934 .. .. .	13,600,599	..	13,600,599	20,505,544	34,106,143
1935 .. .. .	15,480,158	..	15,480,158	22,813,183	38,293,341
1936 .. .. .	14,162,201	..	14,162,201	8,450,877	22,613,078
1937 .. .. .	6,375,532	..	6,375,532	1,723,894	8,099,426
1938 .. .. .	..	..	..	2,129,867	2,129,867
1930 .. .. .	2,358,276	..	2,358,276	38,069,487	40,427,763
1940 .. .. .	5,606,500	..	5,606,500	1,451,713	7,058,213
1941 .. .. .	33,587,950	..	33,587,950	3,928,735	37,516,685
1942 .. .. .	..	2,112,812	2,112,812	39,326,920	41,439,732
1943 .. .. .	24,634,150	..	24,634,150	4,510,932	29,145,082
1944 .. .. .	..	..	..	1,259,300	1,259,300
1945 .. .. .	12,774,046	..	12,774,046	24,344,783	37,118,829
1946 .. .. .	12,034,568	..	12,034,568	16,500	12,051,068
1947 .. .. .	5,717,813	2,054,865	7,772,678	1,287,928	9,060,606
1948 .. .. .	..	..	..	14,021,174	14,021,174
1949 .. .. .	5,202,146	..	5,202,146	697,165	5,899,311
1950 .. .. .	6,119,695	..	6,119,695	932,829	7,052,524
1951 .. .. .	20,867,428	..	20,867,428	13,842,367	34,709,795
1952 .. .. .	..	..	..	554,186	554,186
1953 .. .. .	..	..	..	491,618	491,618
1954 .. .. .	..	..	..	12,911,291	12,911,291
1955 .. .. .	3,345,804	..	3,345,804	778,078	4,123,882
1956 .. .. .	21,657,000	10,806,844	32,463,844	12,152,861	44,616,705
1957 .. .. .	..	4,857,598	4,857,598	346,685	5,204,283
1958 .. .. .	17,870,500	10,131,408	28,001,908	11,566,174	39,568,082
1960 .. .. .	3,850,724	..	3,850,724	11,619,602	15,470,326
1961 .. .. .	29,163,835	..	29,163,835	..	29,163,835
1962 .. .. .	4,964,083	..	4,964,083	11,398,915	16,362,998
1963 .. .. .	10,392,396	..	10,392,396	106,804	10,499,200
1964 .. .. .	..	..	..	1,566,000	1,566,000
1966 .. .. .	16,789,665	..	16,789,665	..	16,789,665
1970 .. .. .	2,000,000	..	2,000,000	..	2,000,000
1976 .. .. .	65,286,969	..	65,286,969	50,064	65,337,033
Overdue .. .. .	9,950	..	9,950	1,350	11,300
Interminable .. .. .	1,200	..	1,200	462,089	463,289
Treasurer's Option .. .. .	2,433,499	..	2,433,499	6,569,551	9,003,050
Half-yearly Drawings .. .. .	..	..	..	4,634,392	4,634,392
Not fixed .. .. .	..	..	..	31,316,824	31,316,824
Total .. .. .	395,752,485	29,963,527	425,716,012	363,227,126	788,943,138

(a) Total "face" or "book" value of the Public Debt of the States without adjustment on account of currency changes since the loans were floated.

6. Sinking Funds.—Prior to the passing of the *Financial Agreement Act* 1928, the practice of providing sinking funds by the States had been consistently adopted in the case of Western Australia only. This State had established, in connexion with each of its loans, sinking funds varying from 1 per cent. to 3 per cent. per annum of the nominal amount of the loan. The funds were placed with trustees in London, by whom they are invested in securities, and applied from time to time to the redemption of loans falling due. In the other States the sinking fund provision varied, consisting in certain instances of the revenues from specified sources, in others of the Consolidated Revenue Fund surplus, and in others again of fixed annual amounts. The *Financial Agreement Act* 1928 contains provisions for the establishment of a sinking fund on States' debts, and details are included in Part III., Section 3 of the *Financial*



Agreement between the Commonwealth and States which is reprinted in Chapter I., pages 21 to 32, of this volume. Details of the transactions of the National Debt Sinking Fund (States' Account) are given in Finance Bulletin No. 23, issued by this Bureau.

#### D. COMMONWEALTH AND STATE FINANCE.

1. Revenue and Expenditure.—The appended statements show the aggregate revenue and expenditure of the Commonwealth and States for each of the last five years to 1931-32, allowance having been made in cases of duplication.

#### COMMONWEALTH AND STATES.—REVENUE.

Year ended 30th June—	Revenue collected by Commonwealth Government.(a)	Revenue collected by State Governments.(b)	Total.
	£	£	£
1928 .. .. .	71,817,299	107,779,249	179,596,548
1929 .. .. .	72,782,640	110,299,407	183,712,047
1930 .. .. .	75,137,160	104,989,492	180,126,652
1931 .. .. .	67,882,839	94,285,973	162,168,812
1932 .. .. .	70,139,488	87,952,392	158,091,880

(a) Excluding Interest on Loans to States for Soldier Land Settlement, Miscellaneous Loans, and Balance of Interest on States' Debts.

(b) Excluding Payments by Commonwealth Government under "Surplus Revenue", "Special Grants", "Financial Agreement", and "Federal Aid Roads" Acts.

#### COMMONWEALTH AND STATES.—EXPENDITURE.

Year ended 30th June—	Expenditure by Commonwealth Government.(a)	Expenditure by State Governments.	Total.
	£	£	£
1928 .. .. .	68,855,887	117,410,451	186,266,338
1929 .. .. .	67,186,907	120,329,420	187,516,327
1930 .. .. .	68,113,253	122,812,235	190,925,488
1931 .. .. .	69,335,546	118,362,409	187,697,955
1932 .. .. .	61,004,576	116,759,233	177,763,809

(a) Excluding Payments to States and Interest on States' Debts, etc.

2. **Taxation.**—In the table hereunder showing the combined Commonwealth and State taxation for each of the years 1927-28 to 1931-32, as well as the amount per head of population, certain taxation collections by the State Governments which are not paid into the Consolidated Revenue Fund have been included:—

## TOTAL COMMONWEALTH AND STATE TAXATION.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
<b>Commonwealth—</b>					
Customs and Excise ..	41,446,730	41,058,571	41,774,391	28,295,073	28,405,796
Other .. ..	15,191,128	15,244,918	16,413,384	22,125,033	25,553,246
<b>Total .. ..</b>	<b>56,637,858</b>	<b>56,303,489</b>	<b>58,187,775</b>	<b>50,420,106</b>	<b>53,959,042</b>
<b>State .. ..</b>	<b>32,252,143</b>	<b>32,525,832</b>	<b>33,823,803</b>	<b>35,759,813</b>	<b>32,748,228</b>
<b>Grand Total ..</b>	<b>88,890,001</b>	<b>88,829,321</b>	<b>92,011,578</b>	<b>86,179,919</b>	<b>86,707,270</b>
<b>Taxation per head(b)—</b>					
<b>Commonwealth—</b>					
Customs and Excise ..	£6/13/1	£6/9/8	£6/10/4	£4/7/5	£4/7/1
Other .. ..	£2/8/9	£2/8/2	£2/11/2	£3/8/5	£3/18/4
<b>Total .. ..</b>	<b>£9/1/10</b>	<b>£8/17/10</b>	<b>£9/1/6</b>	<b>£7/15/10</b>	<b>£8/5/5</b>
<b>State .. ..</b>	<b>£5/3/9</b>	<b>£5/2/11</b>	<b>£5/5/9</b>	<b>£5/10/9</b>	<b>£5/0/7</b>
<b>Grand Total ..</b>	<b>£14/5/3</b>	<b>£14/0/5</b>	<b>£14/6/11</b>	<b>£13/6/3</b>	<b>£13/5/9</b>

(a) Includes Sales Tax, £3,472,854 (10s. 9d. per head) in 1930-31 and £8,425,067 (£1 5s. 10d. per head) in 1931-32. (b) Based on mean population of each financial year; that for States, on the aggregate mean population of the six States.

3. Public Debt.—(i) *General.* The table hereunder shows the public debt of the Commonwealth and of the States at the 30th June in each of the years 1928 to 1932. In this table all moneys borrowed by the Commonwealth on behalf of the States have been included with State debts only, and similarly, the debts taken over by the Commonwealth from South Australia on account of the Northern Territory and of the Port Augusta-Oodnadatta Railway have now been included with the Commonwealth Debt.

## COMMONWEALTH AND STATES' PUBLIC DEBTS.

Particulars.	Where Redeemable.	At 30th June—				
		1928.	1929.	1930.	1931.	1932.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
Commonwealth ..	Aust. . .	226,874,748	225,433,064	212,653,279	221,721,804	222,992,803
	London	136,215,847	142,630,573	150,746,148	157,438,806	158,775,930
	New York	17,291,277	17,155,718	17,155,718	17,155,718	17,115,997
	Total (b)	380,381,872	385,219,355	380,555,145	396,316,328	398,884,730
States .. ..	Aust. . .	297,760,357	306,312,095	314,315,385	335,178,302	363,227,126
	London	385,670,884	381,718,085	375,039,685	394,105,816	395,752,485
	New York	30,989,788	30,778,527	30,686,983	30,435,672	29,963,527
	Total (b)	714,421,029	718,808,707	720,042,053	759,719,790	788,943,138
Total, Commonwealth and States	Aust. . .	524,635,105	531,745,159	526,968,664	556,900,106	586,219,929
	London	521,886,731	524,348,658	525,785,833	551,544,622	554,528,415
	New York	48,281,065	47,934,245	47,842,701	47,591,390	47,079,524
	Grand Total (b)	1,094,802,901	1,104,028,062	1,100,597,198	1,156,036,118	1,187,827,868

(a) The units of currency are—

For debt maturing in Australia	..	..	..	£ (Aust.)
For debt maturing in London	..	..	..	£ (Stg.)
For debt maturing in New York	..	..	..	£ (Gold.)

(b) The "face" or "book" value of the debts without adjustment on account of currency changes since the loans were floated.

(ii) *Dates of Maturity.* The particulars given in the appended table show separately as at 30th June, 1932, the amounts of Commonwealth and States securities maturing in Australia and overseas according to year of maturity, together with the amount of interest payable yearly thereon. It should be noted that the year of maturity is given for fiscal years ended 30th June and for that reason the information is not directly comparable with statements published in issues of the Official Year Book prior to No. 24. Debts with optional dates of maturity, representing about 75 per cent. of the total overseas obligations, have been grouped according to the latest year of maturity. Reference will be made in the Appendix to certain conversion operations in connexion with the London debt with optional maturity dates.

COMMONWEALTH AND STATES' PUBLIC DEBTS, 30th JUNE, 1932.—  
DATES OF MATURITY.

Year of Maturity.	Commonwealth and States' Debts.				Annual Interest Payable at 30th June, 1932, in respect of Commonwealth and States' Debts Maturing in the Years stated.			
	Maturing in Australia.	Maturing in London.	Maturing in New York.	Total.	Interest Payable.			
					In Australia.	In London.	In New York.	Total.
	£'000. (Aust.)	£'000 (Stg.)	£'000 (Gold).	£'000 (a)	£'000 (Aust.)	£'000 (Stg.)	£'000 (Gold).	£'000 (b)
1932-33 .. ..	74,262	49,686	..	123,948	2,889	2,241	..	5,130
1933-34 .. ..	22,597	13,601	..	36,198	903	589	..	1,492
1934-35 .. ..	23,756	15,563	..	39,319	1,001	714	..	1,715
1935-36 .. ..	8,989	14,736	..	23,725	386	467	..	853
1936-37 .. ..	1,984	6,747	..	8,731	78	309	..	387
1937-38 .. ..	2,277	..	..	2,277	82	..	..	82
1938-39 .. ..	81,204	2,518	..	83,722	3,196	88	..	3,284
1939-40 .. ..	1,884	5,607	..	7,491	73	199	..	272
1940-41 .. ..	4,013	48,588	..	52,601	136	2,950	..	3,086
1941-42 .. ..	73,566	..	2,113	75,682	2,949	..	148	3,097
1942-43 .. ..	7,070	24,634	..	31,704	286	1,231	..	1,517
1943-44 .. ..	1,259	..	..	1,259	56	..	..	56
1944-45 .. ..	52,432	30,129	..	82,561	2,011	1,447	..	3,458
1945-46 .. ..	17	12,034	..	12,051	..	547	..	547
1946-47 .. ..	1,288	5,718	2,055	9,061	49	179	123	351
1947-48 .. ..	39,022	..	..	39,022	1,550	..	..	1,550
1948-49 .. ..	1,137	5,202	..	6,339	40	156	..	196
1949-50 .. ..	933	6,120	..	7,053	32	214	..	246
1950-51 .. ..	30,602	20,867	..	51,469	1,217	774	..	1,991
1951-52 .. ..	554	..	..	554	19	..	..	19
1952-53 .. ..	492	..	..	492	17	..	..	17
1953-54 .. ..	29,053	..	..	29,053	1,158	..	..	1,158
1954-55 .. ..	778	3,346	..	4,124	30	117	..	147
1955-56 .. ..	28,012	21,657	25,351	75,020	1,120	1,083	1,217	3,420
1956-57 .. ..	346	..	4,858	5,204	14	..	243	257
1957-58 .. ..	26,977	17,870	12,703	57,550	1,079	938	635	2,652
1958-59 .. ..	..	..	..	..	..	..	..	..
1959-60 .. ..	27,019	3,851	..	30,870	1,081	152	..	1,233
1960-61 .. ..	..	35,164	..	35,164	..	1,673	..	1,673
1961-62 .. ..	26,345	4,964	..	31,309	1,054	199	..	1,253
1962-63 .. ..	107	10,392	..	10,499	3	416	..	419
1963-64 .. ..	1,566	..	..	1,566	48	..	..	48
1964-65 .. ..	..	..	..	..	..	..	..	..
1965-66 .. ..	..	16,790	..	16,790	..	826	..	826
1966-67 .. ..	..	..	..	..	..	..	..	..
1967-68 .. ..	..	..	..	..	..	..	..	..
1968-69 .. ..	..	..	..	..	..	..	..	..
1969-70 .. ..	..	2,000	..	2,000	..	70	..	70
1970-71 .. ..	..	..	..	..	..	..	..	..
1971-72 .. ..	..	..	..	..	..	..	..	..
1972-73 .. ..	..	..	..	..	..	..	..	..
1973-74 .. ..	..	..	..	..	..	..	..	..
1974-75 .. ..	..	..	..	..	..	..	..	..
1975-76 .. ..	50	94,576	..	94,626	1	4,729	..	4,730
Overdue .. ..	77	10	..	87	..	..	..	..
Interminable ..	462	1	..	463	15	..	..	15
Treasurers' Option ..	6,603	2,433	..	9,036	190	73	..	263
Half-yearly Drawings ..	4,634	..	..	4,634	152	..	..	152
Annual Repayments ..	..	79,724	..	79,724	..	3,920	..	3,920
Transferred Properties ..	111	..	..	111	4	..	..	4
Indefinite .. ..	4,739	..	..	4,739	161	..	..	161
Total .. ..	586,220	554,528	47,080	1,187,828	23,080	26,301	2,366	51,747

(a) The total "face" or "book" value of the Public Debt without adjustment on account of currency changes since the loans were floated. (b) Nominal amount of interest payable takes no account of exchange.

(iii) *Rates of Interest, 30th June, 1932.* The amount of Commonwealth and States Public Debt at each rate of interest (internal and external debt shown separately) is given in the following table.

COMMONWEALTH AND STATES' PUBLIC DEBTS, 30th JUNE, 1932.—AMOUNT AT EACH RATE OF INTEREST.

Rate of Interest.	Commonwealth and States' Debt maturing—			
	In Australia.	In London.	In New York.	Total.
%	£ (Aust.)	£ (Stg.)	£ (Gold)	£ (b)
2.325 .. ..	1,893,560	..	..	1,893,560
2.7125 .. ..	1,390,325	..	..	1,390,325
2.9042 .. ..	1,483	..	..	1,483
2.90625 .. ..	960,267	..	..	960,267
3. .. ..	31,593,142	30,103,502	..	61,696,644
3.1 .. ..	9,349,861	..	..	9,349,861
3.29375 .. ..	2,000	..	..	2,000
3.4875 .. ..	8,702,145	..	..	8,702,145
3.5 .. ..	637,525	58,612,789	..	59,250,314
3.68125 .. ..	580,730	..	..	580,730
3.75 .. ..	..	3,678,008	..	3,678,008
3.875 .. ..	38,905,044	..	..	38,905,044
4 .. ..	449,630,189	45,459,794	..	495,089,983
4.06875 .. ..	28,086,271	..	..	28,086,271
4.25 .. ..	..	137,750	..	137,750
4.2625 .. ..	27,066,170	..	..	27,066,170
4.4542 .. ..	89,650	..	..	89,650
4.45625 .. ..	3,219,383	..	..	3,219,383
4.5 .. ..	..	17,894,365	10,185,761	28,080,126
4.65 .. ..	7,431,653	..	..	7,431,653
4.75 .. ..	..	11,999,000	..	11,999,000
4.91675 .. ..	..	79,724,220	..	79,724,220
5 .. ..	203,917	213,445,448	32,726,086	246,375,451
5.0375 .. ..	3,319,235	..	..	3,319,235
5.25 .. ..	..	17,870,500	..	17,870,500
5.5 .. ..	..	13,649,749	..	13,649,749
5.75 .. ..	..	18,312,183	..	18,312,183
6 .. ..	..	32,221,192	2,054,865	34,276,057
6.5 .. ..	..	11,409,965	..	11,409,965
7 .. ..	..	..	2,112,812	2,112,812
Overdue (a) ..	254,008	9,950	..	263,958
Deduct Loans to States for Soldier Land Settlement	— 27,096,629	..	..	— 27,096,629
Total .. ..	586,219,929	554,528,415	47,079,524	1,187,827,868
Average Rate of Interest ..	£3 18s. 9d.	£4 14s. 11d.	£5 0s. 6d.	£4 7s. 1d.

(a) Includes unconverted securities. (b) Total "face" or "book" value of the Public Debt without adjustment on account of currency changes since the loans were floated.

(iv) *Interest Payable.* The table hereunder shows the interest payable on the public debt of the Commonwealth and of the States at the 30th June in each of the years 1928 to 1932.

## COMMONWEALTH AND STATES' PUBLIC DEBTS, INTEREST PAYABLE.

Particulars.	Where Payable.	At 30th June.				
		1928.	1929.	1930.	1931.	1932.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
Commonwealth ..	Australia ..	12,079,926	12,027,136	11,374,060	12,190,243	8,809,205
	London ..	6,838,937	7,182,377	7,591,389	7,787,343	7,858,150
	New York ..	842,858	836,109	836,109	836,109	834,133
	Total (b)	19,761,721	20,045,622	19,801,558	20,813,695	17,501,488
States .. ..	Australia ..	15,481,043	15,941,357	16,395,263	17,551,862	14,271,278
	London (c) ..	18,021,752	17,933,140	17,594,511	18,244,281	18,442,628
	New York ..	1,589,689	1,579,367	1,574,789	1,559,597	1,531,720
	Total (b)	35,092,484	35,453,864	35,564,563	37,355,740	34,245,626
Total Commonwealth and States	Australia ..	27,560,969	27,968,493	27,769,323	29,742,105	23,080,483
	London ..	24,860,689	25,115,517	25,185,900	26,031,624	26,300,778
	New York ..	2,432,547	2,415,476	2,410,898	2,395,706	2,365,853
	Total (b)	54,854,205	55,499,486	55,366,121	58,169,435	51,747,114
Average Rate per cent.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
	Australia ..	5 5 1	5 5 2	5 5 5	5 6 10	3 18 9
	London ..	4 15 3	4 15 10	4 15 10	4 14 5	4 14 11
	New York ..	5 0 9	5 0 9	5 0 9	5 0 8	5 0 6
Total (b)	5 0 3	5 0 6	5 0 7	5 0 8	4 7 1	

(a) The units of currency are—

For interest payable in Australia .. ..	£ (Aust.)
For interest payable in London .. ..	£ (Stg.)
For interest payable in New York .. ..	£ (Gold.)

(b) The nominal amount and average rate of interest payable take no account of exchange.

(c) Includes contributions payable by Commonwealth and British Governments towards interest on Migration Loans.

The average rate of interest payable on debt maturing in Australia rose from £3 10s. 1d. per cent. in 1912 to £4 16s. 7d. per cent. in 1922 and reached the maximum rate of £5 5s. 5d. per cent. in 1931. The National Debt Conversion Loan of 1931-32, which was designed to reduce the interest payable on all internal loans by 22½ per cent., resulted in a decrease of £1 8s. 1d. per cent. to £3 18s. 9d. per cent., which rate is slightly above that ruling in 1917. There has been little variation in the rate of interest payable on overseas loans, the present rate of £4 15s. 4d. per cent. being a few pence only in excess of the 1925 rate.

(v) *Short-term Debt.* Particulars of the short-term debt (Treasury Bills and Debentures) of the Commonwealth and States in London and in Australia at intervals from 30th June, 1930, to 30th June, 1932, are given in the following table:—

## COMMONWEALTH AND STATES—SHORT TERM DEBT.(a)

Date.	Maturing in London.			Maturing in Australia.		
	Common-wealth.	States.	Total.	Common-wealth.	States.	Total.
	£'000 Stg.	£'000 Stg.	£'000 Stg.	£'000 Aust.	£'000 Aust.	£'000 Aust.
30th June, 1930 ..	175	4,825	5,000	..	2,300	2,300
30th June, 1931 ..	8,808	24,267	33,075	5,066	15,554	20,620
30th September, 1931	10,220	27,855	38,075	6,525	24,700	31,225
31st December, 1931..	10,220	27,605	37,825	8,225	31,535	39,760
31st March, 1932 ..	10,220	27,355	37,575	(b) 9,224	34,201	43,425
30th June, 1932 ..	10,220	27,105	37,325	6,330	38,660	44,990

(a) Exclusive of overdrafts.

(b) Excludes £1,796,000 on account of New South Wales.

The foregoing figures do not include overdrafts. At the 30th June, 1930, approximately £29,000,000 of London unfunded debt was on account of overdrafts. This amount was covered by the issue of Treasury Bills and Debentures during 1930-31, and at the 30th June, 1931, London overdrafts amounted to £5,000,000.

4. **The Australian Loan Council.**—The Australian Loan Council was created during 1923-24 as the result of representations made by the Commonwealth Government, and had for its object the prevention of competition and clashing in the raising of loans. Until July, 1925, the Council consisted of representatives (usually the Treasurers) of the Commonwealth and of each of the States; in August of that year the representative of New South Wales withdrew from the Council, but rejoined at the end of 1927.

Prior to the passing of the *Financial Agreement Validation Act (No. 4, 1929)*, assented to on 18th March, 1929, the Australian Loan Council functioned on a purely voluntary basis. The Act referred to, in which is embodied the agreement between the Commonwealth and States Governments, invested the Loan Council with full constitutional authority. Details of the constitution of the Loan Council are included in Part I., section 3 of the Financial Agreement and may be found in Chapter I., pp. 23-27 of this volume.

The present objects and powers of the Loan Council as a constitutional body are set out in the Financial Agreement Act.

## CHAPTER XV.

## PRIVATE FINANCE.

## A. GENERAL.

In issues of the Official Year Book prior to No. 25 information relating to Private Finance was included in the Chapter dealing with Finance generally. Commencing with the last issue, however, a separate chapter is devoted to the subject of Private Finance which is subdivided into the following sections :—

Banking, including Savings Banks ;  
Companies ;  
Insurance ;  
Friendly Societies ; and  
Probates.

## B. BANKING.

## § 1. Cheque-Paying Banks.

1. **Banking Legislation.**—(i) *Commonwealth Legislation.* Under Section 51 of the Commonwealth Constitution Act, the Commonwealth Parliament has power to legislate with respect to "Banking, other than State banking, also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money." Legislation under this authority comprises the following Acts : No. 27 of 1909, dealing with Bills of Exchange, Cheques, and Promissory Notes ; No. 11 of 1910, dealing with Australian Notes ; and No. 14 of 1910, a Bank Notes Tax Act. The Notes Act and the Bank Notes Tax Act were supplemented in the following year by the passing of Act No. 18 of 1911, "An Act to provide for a Commonwealth Bank," which passed both Houses and was assented to on 22nd December, 1911. The Commonwealth Bank Act, 1924, assented to on the 20th August, 1924, and brought into operation on the 10th October, 1924, provided for a broadening of the scope of the Commonwealth Bank. Several amendments to the original Act were included in this measure and a further amendment in 1927 provided for the separation of the Savings Bank from the General Bank.

(ii) *State Legislation.* The Acts under which the various banks are incorporated differ somewhat. While most of the older banks were incorporated by special Act or Charter, *e.g.*, the Bank of New South Wales, by Act of Council 1817; the Bank of Australasia, by Royal Charter; the Bank of Adelaide, by Act of the South Australian Parliament; and the Bank of New Zealand, by Act of the General Assembly of New Zealand, the newer banks are generally registered under a "Companies Act," or some equivalent Act. This is also the case with those banks which, after the crisis of 1893, were reconstructed. Banks transacting business in any State are obliged under the existing State laws to furnish a quarterly statement of their assets and liabilities, and they have since the year 1908 furnished to the Commonwealth Statistician under the *Census and Statistics Act 1905-30* quarterly statements which contain the average of the thirteen weekly statements prepared by each bank. These returns form the basis on which the statistics included herein have been compiled.

2. **Presentation of Banking Statistics.**—In presenting statistical tabulations relating to average liabilities and assets, it is considered desirable to show the figures for the Commonwealth Bank separately from those of other cheque-paying banks. The aggregate business of all trading banks is, however, given in additional paragraphs. Previously it was customary to show separate figures for each State, but it has been decided to discontinue this practice. The figures quoted in all cases refer to the average liabilities and assets within the Commonwealth of Australia.

3. **Banks in Operation, Capital Resources, etc.**—(i) *Year 1932.* The paid-up capital of cheque-paying banks, together with their reserve funds, the rate per cent., and the amount of their last dividends are shown in the following table. The



information relates to the balance-sheet last preceding the 30th June, 1932. In regard to the reserve funds it must be noted that in the case of some of the banks these are invested in Government securities, while in other cases they are used in the ordinary business of the banks, and in a few instances they are partly invested and partly used in business :—

**CHEQUE-PAYING BANKS.—CAPITAL RESOURCES, 30TH JUNE, 1932.**

Bank.	Paid-up Capital.	Reserves.	Balance on Profit and Loss Account.	Total Shareholders' Funds.	Dividends.	
					Amount for Year.	Average Rate per cent.
	£	£	£	£	£	%
<b>Australian Joint Stock Banks—</b>						
Bank of New South Wales (a)	8,780,000	6,150,000	224,730	15,154,730	460,950	5s. 3d. per share
Commercial Banking Coy. of Sydney Ltd. . . . .	4,739,012	4,300,000	235,921	9,274,933	260,645	5½
Primary Producers' Bank of Australia Ltd. (b) . . . . .	452,150	(i)	(i)	(g) 452,150	..	..
National Bank of Australasia Ltd. . . . .	5,000,000	3,300,000	275,950	8,575,950	300,000	6
Commercial Bank of Australia Ltd. . . . .	4,117,350	2,250,000	212,659	6,580,009	184,694	4 Pref. 5 Ord.
Ballarat Banking Coy. Ltd. Queensland National Bank Ltd. . . . .	153,000	92,500	13,722	259,222	7,650	5
Brisbane Permanent Building and Banking Co.(c) . . . . .	1,750,000	860,000	53,645	2,663,645	70,000	4
Bank of Adelaide . . . . .	675,569	120,000	17,788	813,357	27,359	5
Bank of Australasia . . . . .	1,250,000	1,000,000	65,571	2,315,571	50,000	4
Bank of Australasia . . . . .	4,500,000	4,475,000	320,188	9,295,188	343,500	9s. per share
Union Bank of Australia Ltd. English, Scottish and Australian Bank Ltd. . . . .	4,000,000	4,850,000	170,963	9,020,963	160,000	4
	3,000,000	3,205,000	339,854	6,544,854	150,000	5
<b>Total Australian Joint-Stock Banks . . . . .</b>	<b>38,417,081</b>	<b>30,602,500</b>	<b>1,930,991</b>	<b>70,950,572</b>	<b>2,014,798</b>	<b>..</b>
<b>Other Cheque-paying Banks—</b>						
<b>Commonwealth Bank of Australia—</b>						
General Bank . . . . .	4,000,000	1,406,581	..	5,406,581	..	..
Rural Credits . . . . .	1,893,446	261,603	..	2,155,049	..	..
Rural (New South Wales Government) (h) . . . . .	14,483,289d	586,351	..	15,069,640	..	..
State Bank of South Australia	1,809,000e	..	..	1,809,000	..	..
<b>Total Australian Banks . . . . .</b>	<b>60,602,816</b>	<b>32,857,035</b>	<b>1,930,991</b>	<b>95,390,842</b>	<b>2,014,798</b>	<b>..</b>
<b>Bank of New Zealand . . . . .</b>	<b>6,858,113</b>	<b>3,575,000</b>	<b>846,749</b>	<b>11,279,862</b>	<b>817,969</b>	<b>(f)</b>
Comptoir National d'Escompte de Paris (g) . . . . .	3,225,806	3,515,296	2,008	6,743,110	322,580	10
Yokohama Specie Bank Ltd. (g)	10,000,000	11,730,000	487,787	22,217,787	1,000,000	10
<b>Grand Total . . . . .</b>	<b>80,686,735</b>	<b>51,677,331</b>	<b>3,267,535</b>	<b>135,631,601</b>	<b>4,155,347</b>	<b>..</b>

(a) Increase in capital due to amalgamation with Australian Bank of Commerce Ltd., vide Balance-sheet dated 30th September, 1932. (b) In liquidation. (c) Absorbed Queensland Deposit Bank Ltd., during year. (d) Stock and debentures issued. Increase due to issue of Inscribed Stock to Commonwealth Bank which assumed liability for deposits with Rural Bank. (e) Capital advanced by Government of South Australia and Sale of Bonds. (f) Dividends for 1931-32.—Preference "A," 10 per cent.; Preference B (and Bonus), 13-2/11 per cent.; "C" Long Term Mortgage, 6 per cent.; "D" Long Term Mortgage, 7½ per cent.; Ordinary (and Bonus), 14½ per cent.; and Guaranteed Stock, 4 per cent. (g) Approximate. (h) Subsequently absorbed by Commonwealth Bank. (i) Not available, bank in liquidation.

(ii) *Suspension of Payments.* (a) *Rural Bank Department, Government Savings Bank of New South Wales.*—Owing to the continuous demands of depositors depleting the liquid assets of the bank, the Commissioners decided, after abortive negotiations for its absorption by the Commonwealth Savings Bank, to suspend payments to depositors from 22nd April, 1931, until further notice.

On 7th September, 1931, the Government appointed new Commissioners and the Bank re-opened, accepting deposits in what were termed "new business" accounts. No arrangements had then been completed to enable depositors in the "old business" division to withdraw deposits, although transfers from one account to another in that division were permitted.

Negotiations for the absorption of the Bank by the Commonwealth Bank were re-opened by the new Commissioners, and early in December, 1931, agreement was reached in regard to all aspects of the transfer.

Under the agreement, the Rural Bank transferred to the Commonwealth Bank the liabilities of the "old business division" to the public, consisting of deposits amounting to £11,167,796, in addition to those assets comprising fixed deposits with Trading Banks (£936,280) and deposits with the New South Wales Treasury (£506,685)—a total of £1,436,965. The net difference between the liabilities and assets so transferred was covered by the issue of inscribed stock or debentures of the Rural Bank Department. The whole of the liabilities and assets of the "new business division" were transferred as a going concern to the Commonwealth Bank.

The Commonwealth Bank, under the terms of the agreement, made available to fixed depositors of the "old business division" 10 per cent. of the amount of their deposits as from 15th December, 1931. In January, 1932, all restrictions on the operation of depositors on their accounts were removed.

(b) *Primary Producers' Bank of Australia Ltd.* On the 24th August, 1931, the Primary Producers' Bank of Australia Ltd. was forced to close its doors owing to the depletion of its liquid assets. Before closing, unsuccessful attempts had been made to amalgamate with some other financial house, and at the end of September, 1931, steps were taken for the winding up of the bank's business.

(c) *Federal Deposit Bank.* Following on the closure of the Primary Producers' Bank, which had its origin in Queensland, considerable uneasiness developed amongst depositors in the small banks, and the stream of withdrawals seriously embarrassed the managements of these institutions. The Brisbane Permanent Building and Banking Co. Ltd., and the Queensland Deposit Bank received the support of some of the stronger trading banks, and were able to withstand the demands on their resources. The directors of the Federal Deposit Bank decided to suspend payment as from 5th September, 1931, and court orders were subsequently issued for placing the affairs of the bank in the hands of a liquidator. At the end of October, 1931, a scheme of settlement was placed before depositors, providing for the immediate payment of small current accounts and extended payment of higher amounts.

(iii) *Amalgamations.* Negotiations for the amalgamation of the Australian Bank of Commerce Ltd. with the Bank of New South Wales were completed and became effective from the 17th November, 1931.

On the 12th November, 1931, an agreement was completed for the amalgamation of the Brisbane Permanent Building and Banking Co. Ltd., and the Queensland Deposit Bank.

4. *Commonwealth Bank.*—(i) *General.* A brief account of the foundation of the Commonwealth Bank was given in Nos. 6 to 10 of the Official Year Book. Although Savings Bank business was transacted in some States from July, 1912, the Bank was formally opened for general and Savings Bank business on the 20th January, 1913, and as no capital was advanced and the initial expenses were heavy, the operations in the early years resulted in a small loss. The increasing prosperity of the institution due to Savings Bank business, the holding of Government accounts and the stimulus of War finance soon enabled the early deficits to be reduced until on June 30th, 1915, they were entirely extinguished.

An important stage in the history of the Bank was the passing of the Commonwealth Bank Act, 1924, which was assented to on the 20th August, 1924, and brought into operation on the 10th October, 1924. This Act was passed to broaden the scope of the Commonwealth Bank and to enable it to perform the functions for which it had been established. Five main amendments to the Bank Act 1911-20 were included, in accordance with which the following changes were made :—(1.) A Board of Directors was appointed to control not only the general business, but also that of the note issue. The Board consists of the Governor of the Bank, the Secretary to the Treasury, and six others who are or have been actively engaged in agriculture, commerce, finance or industry. In addition to the above Board there is a Board of Advice in London. (2.) The Bank was strengthened by the capitalization of £4,000,000 of the accumulated profits, and the Treasurer was authorized to raise by loans sums aggregating £6,000,000 and to lend the proceeds to the Commonwealth Bank as additional capital. The authority already included in the Commonwealth Bank Act to issue debentures up to £10,000,000 remains unaltered. (3.) The Board is to fix and publish its discount rate. (4.) The associated banks settle their exchanges through the Commonwealth Bank. (5.) The associated banks supply to the Treasurer each quarter a statement of average weekly liabilities and assets in accordance with the schedule prescribed. The operations of the Bank, which holds in addition to the Commonwealth Government's accounts, those of the States of Victoria (portion only), Queensland, South Australia, Western Australia and Tasmania, and many local governing bodies, have developed towards those of a Central Bank. Unlike ordinary commercial banks, it does not offer special inducements to attract private accounts.

The Bank has played a most important part in the financing of Government deficits during the years 1930-31 to 1932-33. References to this aspect of its business are given in the Appendix (See under "Financial Crisis"). It may be mentioned here that in December, 1931, the Bank Board undertook the responsibility of regulating sterling exchange and announcing rates each week.

A further amending act—The Commonwealth Bank Act, 1927—provided for the separation of the Savings Bank Department from the General Bank and its establishment as a separate institution, and the transfer to the "Commonwealth Savings Bank of Australia" of all assets and liabilities of the Savings Bank Department. The date on which this amending act became operative was fixed by proclamation as the 9th June, 1928.

The amount of capital and reserves at the date of separation was allocated as follows, Commonwealth Bank of Australia, Capital £4,000,000; Reserve Fund, £303,857; Commonwealth Savings Bank of Australia, Reserve Fund, £1,075,298.

Since the 1st July, 1927, the Bank has published a weekly statement of the accounts of the note issue and general banking departments of the Bank.

Particulars of the aggregate net profits from the initiation of the Bank to the end of each of the last five financial years are as follow :—

#### COMMONWEALTH BANK.—AGGREGATE PROFITS.

Date	Aggregate Net Profit to Date.			
	General Bank.	Savings Bank.	Rural Credits Department.	Total.
	£	£	£	£
30th June, 1928 ..	4,909,327	1,795,822	61,266	6,766,415
„ 1929 ..	5,367,950	2,037,057	109,928	7,514,935
„ 1930 ..	5,868,398	2,288,389	179,337	8,336,124
„ 1931 ..	6,502,217	2,522,576	265,890	9,290,683
„ 1932 ..	6,943,943	2,781,996	328,078	10,054,017

In accordance with the provisions of section 30 of the Bank Act and section 9 (2) of the National Debt Sinking Fund Act, half of the net profits of the Bank have been placed to the credit of the Bank's Reserve Fund and half to the credit of the National Debt Sinking Fund. Up to 30th June, 1932, the latter fund had benefited to the extent of £2,660,976.

(ii) *Liabilities in Australia, 1932-33.* The following table gives particulars of the average liabilities for each quarter from September, 1932, to June, 1933 :-

**COMMONWEALTH BANK OF AUSTRALIA.—LIABILITIES, QUARTERLY AVERAGES.**

Quarter Ended—	Bills in Circulation.	Balances Due to Other Banks. (b)	Deposits.			Total Liabilities.
			Not Bearing Interest. (a)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
30.9.32 ..	1,060,395	21,878,405	5,807,314	27,223,741	33,031,055	55,069,855
31.12.32..	315,313	23,188,620	6,088,186	29,231,460	35,319,646	58,823,579
31.3.33 ..	517,314	25,577,887	6,249,364	30,180,955	36,430,319	62,525,520
30.6.33 ..	1,416,206	23,553,055	6,336,555	33,088,720	39,425,275	64,394,536

(a) Government "Set off" Accounts (Interstate) deducted. cheque-paying banks."

(b) Includes deposits of "other

(iii) *Liabilities in Australia, June Quarter, 1929 to 1933.* The average liabilities for the June quarter of the years 1929 to 1933 are given in the table below. In any comparisons with previous years, it should be noted that the Savings Bank Department operated independently after June, 1928.

**COMMONWEALTH BANK OF AUSTRALIA.—AVERAGE LIABILITIES, JUNE QUARTERS.(c)**

Quarter ended 30th June—	Bills in Circulation.	Balances Due to Other Banks. (b)	Deposits.			Total Liabilities.
			Not Bearing Interest.	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
1929 ..	258,661	9,225,120	17,479,342	10,413,202	27,892,544	37,376,325
1930 ..	278,860	16,937,846	12,279,194	13,090,193	25,369,387	42,586,093
1931 ..	265,871	32,234,744	a 8,425,860	14,785,744	23,211,604	55,712,219
1932 ..	449,679	29,119,080	a 8,606,629	26,609,760	35,216,389	64,785,148
1933 ..	1,416,206	23,553,055	a 6,336,555	33,088,720	39,425,275	64,394,536

(a) Government "Set-off" Accounts (Interstate) deducted. (b) Includes deposits of "other cheque-paying banks". (c) Excluding Commonwealth Savings Bank.

(iv) *Assets in Australia, 1932-33.* The average assets for each quarter of the year 1932-33, were as follow :-

**COMMONWEALTH BANK OF AUSTRALIA.—ASSETS, QUARTERLY AVERAGES.**

Quarter Ended—	Coin.	Bullion.	Australian Notes.	Government and Municipal Securities. (a)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Discounts, Overdrafts, and all other Assets (not including Contingent Assets).	Total Assets.
	£	£	£	£	£	£	£	£	£
30.9.32	913,525	54,152	6,531,054	640,129,024	948,626	161,060	7,976	7,300,585	56,046,002
31.12.32	781,545	65,067	5,770,901	639,076,826	910,959	98,128	16,325	7,456,923	54,176,674
31.3.33	822,161	48,878	5,289,915	643,187,567	930,080	73,376	15,985	7,673,755	58,041,717
30.6.33	843,572	87,834	5,602,312	647,001,964	939,279	92,514	6,458	7,108,522	61,682,455

(a) Includes short-term loans in Australia.

(b) Government "Set-off" accounts (Interstate) deducted.

(v) *Assets in Australia, June Quarter, 1929 to 1933.*—Particulars of the assets for the June quarter of the last five years are given in the following table :—

**COMMONWEALTH BANK OF AUSTRALIA.—AVERAGE ASSETS,  
JUNE QUARTERS.(a)**

Quarter Ended— 30th June—	Coin.	Bullion.	Australian Notes.	Government and Municipal Securities. (b)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks..	Discounts, Overdrafts, and all other Assets (not including Contingent Assets).	Total Assets.
	£	£	£	£	£	£	£	£	£
1929 ..	1,044,917	1,663	4,216,102	13,695,886	519,511	80,311	3,042	14,721,274	34,282,706
1930 ..	1,376,712	1,760	5,743,707	23,282,564	549,053	170,345	3,025	15,111,842	46,230,008
1931 ..	337,291	29,649	4,136,174	39,977,658	683,075	127,289	10,614	13,113,024	58,614,774
1932 ..	850,787	67,508	6,028,267	36,548,954	928,096	648,350	6,375	11,792,021	56,870,358
1933 ..	843,572	87,834	5,602,312	47,001,964	939,279	92,514	6,458	7,108,522	61,682,455

(a) Excludes Commonwealth Savings Bank. (b) Includes short-term loans in Australia.  
(c) Government "Set-off" accounts (Interstate) deducted.

5. **Other Cheque-paying Banks.**—(i) *General.* The term "Other Cheque-paying Banks" has been adopted in preference to "Joint-stock Banks." The latter term, although used for some time, was not strictly correct, as the statistics relating thereto for recent years included returns for the Rural Bank Department of the Government Savings Bank of New South Wales and the State Bank of South Australia, both of which are governmental banking institutions. The figures showing average liabilities and assets given in paragraphs (ii) to (v) immediately following are, however, comparable with those given under "Joint-stock Banks" in previous issues of the Year Book.

(ii) *Liabilities in Australia, 1932-33.* Particulars of the average liabilities of "Other Cheque-paying Banks" for each quarter from September, 1932, to June, 1933, are given in the table following :—

**OTHER CHEQUE-PAYING BANKS.—LIABILITIES, QUARTERLY AVERAGES.**

Quarter ended—	Notes in Circulation not Bearing Interest.	Bills in Circulation not Bearing Interest.	Balances Due to Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.	Bearing Interest.	Total.	
	£	£	£	£	£	£	£
30.9.32	196,076	2,162,816	1,258,489	82,803,516	191,054,820	273,858,336	277,475,717
31.12.32	183,841	2,339,859	1,625,973	87,695,193	192,592,002	280,287,195	284,436,868
31.3.33	186,096	2,092,644	2,369,533	90,443,686	192,981,252	283,424,938	288,073,211
30.6.33	180,937	2,161,091	1,706,020	89,463,673	190,887,142	280,350,815	284,398,863

(iii) *Liabilities in Australia, June Quarters, 1929 to 1933.* The next table shows the average liabilities of "Other Cheque-paying Banks" for the quarters ended 30th June, 1929 to 1933.

**OTHER CHEQUE-PAYING BANKS.—AVERAGE LIABILITIES, JUNE QUARTERS.**

Quarter ended 30th June.	Notes in Circulation not Bearing Interest.	Bills in Circulation not Bearing Interest.	Balances Due to Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.	Bearing Interest.	Total.	
1929 .. ..	£ 199,846	£ 3,653,919	£ 2,629,601	£ 110,215,432	£ 192,059,284	£ 302,274,716	£ 308,758,082
1930 .. ..	199,337	2,829,140	2,938,944	91,688,866	193,506,073	285,194,939	291,162,360
1931 .. ..	198,478	2,330,632	1,727,353	82,620,931	195,855,323	278,476,254	282,732,717
1932 .. ..	197,121	2,131,777	1,398,712	87,830,372	196,194,572	284,024,944	287,752,554
1933 .. ..	180,937	2,161,091	1,706,020	89,463,673	190,887,142	280,350,815	284,398,863

(iv) *Assets in Australia, 1932-33.* The average assets of the banks are shown in the following table:—

**OTHER CHEQUE-PAYING BANKS.—ASSETS, QUARTERLY AVERAGES.**

Quarter ended.	Coin.	Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities.	Landed and House Property.	Balances Due from other Banks.	Notes and Bills of other Banks.	Discounts, Overdrafts, and all other Assets.	Total Assets.
30.9.32..	£ 1,685,647	£ 223,153	£ 39,113,138	£ 48,844,949	£ 8,129,791	£ 5,152,267	£ 1,288,248	£ 250,288,232	£ 354,725,425
31.12.32	1,702,449	223,592	39,768,091	53,054,019	8,080,309	5,571,299	1,485,752	252,672,596	362,558,098
31.3.33..	1,772,712	202,169	42,106,288	53,436,155	8,099,602	5,854,610	1,367,012	251,328,519	364,167,067
30.6.33..	1,643,281	232,100	39,536,446	53,454,043	8,124,229	4,771,710	1,421,115	252,804,616	361,987,540

(v) *Assets in Australia, June Quarter, 1929 to 1933.* The average assets of the banks for the June quarters of each of the years 1929 to 1933 are given below.

**OTHER CHEQUE-PAYING BANKS.—AVERAGE ASSETS, JUNE QUARTER.**

June Quarter.	Gold and Silver and Other Metals, Coin, Bullion or Bars.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities.	Landed and Other Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Discounts, Overdrafts, and all Other Assets.	Total Assets.
1929	£ 25,455,684	£ 23,108,635	£ 24,391,764	£ 7,358,170	£ 5,119,403	£ 2,135,397	£ 267,831,631	£ 355,400,684
1930	4,752,840	33,462,049	20,466,859	7,939,765	6,674,517	1,870,263	284,283,139	359,449,432
1931	1,978,535	51,314,263	22,674,055	8,347,211	5,110,114	1,362,381	263,471,760	354,258,319
1932	1,963,731	47,933,637	44,349,844	8,242,497	5,528,715	1,295,806	249,125,494	358,439,724
1933	1,875,381	39,536,446	53,454,043	8,124,229	4,771,710	1,421,115	252,804,616	361,987,540

6. All Cheque-paying Banks.—(i) *General.* Particulars of the aggregate average liabilities and assets of all cheque-paying banks in the Commonwealth, including the Commonwealth Bank of Australia, are given in the subjoined paragraphs.

(ii) *Liabilities in Australia, 1932-33.* The average liabilities of all cheque-paying banks for each quarter of the year ending June, 1933, were as follow :—

**ALL CHEQUE-PAYING BANKS.—LIABILITIES—QUARTERLY AVERAGES.**

Quarter ended—	Notes in Circulation.	Bills in Circulation.	Balances Due to Other Banks.(b)	Deposits.			Total Liabilities.
				Not Bearing Interest.(a)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£	£
30.9.32 ..	196,076	3,223,211	23,136,894	88,610,830	218,278,561	306,889,391	333,445,572
31.12.32 ..	183,841	2,655,172	24,814,593	93,783,379	221,823,462	315,606,841	343,260,447
31.3.33 ..	186,096	2,609,958	27,947,420	96,693,050	223,162,207	319,855,257	350,598,731
30.6.33 ..	180,937	3,577,297	25,259,075	95,800,228	223,975,862	319,776,090	348,793,399

(a) Government "Set-off" accounts, Interstate (Commonwealth Bank) deducted. (b) Deposits of Other Cheque-paying Banks with Commonwealth Bank are treated in returns as "Balances due to Other Banks".

(iii) *Liabilities in Australia, June Quarters, 1929 to 1933.* The next table shows the average liabilities in Australia for the June quarter of the years 1929 to 1933.

**ALL CHEQUE-PAYING BANKS.—AVERAGE LIABILITIES, JUNE QUARTERS.**

Quarter Ended 30th June—	Notes in Circulation.	Bills in Circulation.	Balances due to Other Banks.(b)	Deposits.(a)			Total Liabilities.
				Not Bearing Interest.	Bearing Interest.	Total.	
	£	£	£	£	£	£	£
1929 ..	199,846	3,912,580	11,854,721	127,694,774	202,472,486	330,167,260	346,134,407
1930 ..	199,337	3,108,000	19,876,790	103,968,060	206,596,266	310,564,326	333,748,453
1931 ..	198,478	2,596,503	33,962,097	99,046,791	210,641,067	301,687,858	338,444,936
1932 ..	197,121	2,581,456	30,517,792	96,437,001	222,804,332	319,241,333	352,537,702
1933 ..	180,937	3,577,297	25,259,075	95,800,228	223,975,862	319,776,090	348,793,399

(a) Excludes deposits with the Commonwealth Savings Bank, which was created a separate department of the Commonwealth Bank on 9th June, 1928. (b) Deposits of Other Cheque-paying Banks with Commonwealth Bank are treated in returns as "Balances due to other Banks." (c) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

(iv) *Assets in Australia, 1932-33.* Particulars of the average assets in Australia for each quarter from September, 1932, to June, 1933, are given in the following table :—

**ALL CHEQUE-PAYING BANKS.—ASSETS, QUARTERLY AVERAGES.**

Quarter Ended—	Coin.	Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities.(a)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Discounts, Overdrafts, and all other Assets (not including Contingent Assets).	Total Assets.
	£	£	£	£	£	£	£	£	£
30.9.32 ..	2,599,172	277,305	45,644,192	688,973,973	9,078,417	5,313,327	1,296,224	257,588,817	410,771,427
31.12.32 ..	2,483,994	288,659	45,538,992	692,130,845	8,991,259	5,669,427	1,502,077	260,129,519	416,734,772
31.3.33 ..	2,594,873	251,047	47,396,203	696,623,722	9,029,682	5,927,986	1,382,997	259,002,274	422,208,784
30.6.33 ..	2,486,853	319,934	45,138,758	710,456,007	9,063,508	4,864,224	1,427,573	259,913,138	423,669,995

(a) Includes short-term loans in Australia. (b) Government "Set-off" Accounts Interstate (Commonwealth Bank) deducted.

(v) *Assets in Australia, June Quarters, 1929 to 1933.* The average assets in Australia for the June quarters of the years 1929 to 1933 were as follow :—

**ALL CHEQUE-PAYING BANKS.—AVERAGE ASSETS, JUNE QUARTERS.**

Quarter ended 30th June—	Coin and Bullion.	Australian Notes. (a)	Government and Municipal Securities.	Landed Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances and All other Assets.	Total Assets.
	£	£	£	£	£	£	£	£
1929..	26,502,264	27,324,737	38,087,650	7,877,681	5,199,714	2,138,439	282,552,905	389,683,390
1930..	6,131,312	39,205,756	43,749,423	8,479,818	6,844,862	1,873,288	299,394,981	405,679,440
1931..	2,545,475	55,450,437	62,651,713	9,030,286	5,237,403	1,372,995	276,584,784	412,873,093
1932..	2,882,026	53,961,904	80,898,798	9,170,593	6,177,065	1,302,181	260,917,515	415,310,082
1933..	2,806,787	45,138,758	100,456,007	9,063,508	4,864,224	1,427,573	259,913,138	423,669,995

(a) Includes Cash with Commonwealth Bank. (Commonwealth Bank) deducted.

(b) Government "Set-off" Accounts, Interstate

(vi) *Cash Reserves Ratios.*—The following table shows for the June quarters of the years 1924 to 1933 the percentages of cash on liabilities "at call" and "total liabilities" respectively for the Commonwealth Bank and the Other Cheque-paying Banks. These percentages relate throughout to business within Australia.

*Commonwealth Bank.*—Cash reserves comprise coin, bullion and Australian notes. "Call" liabilities comprise deposits not bearing interest and (from and including the June quarter of 1925) balances due to other banks. The latter item is assumed to be approximately equivalent to the cash with Commonwealth Bank of the Other Cheque-paying Banks which is included in their quarterly statements with Australian Notes.

In interpreting the percentages it should be noted that the Commonwealth Savings Bank was not created a separate department of the Commonwealth Bank until the 9th June, 1928. Savings Bank deposits are included in the total liabilities of the Commonwealth Bank up to this date, but, obviously, did not come into "call" liabilities.

*Other Cheque-paying Banks.*—Cash reserves comprise coin, bullion and Australian notes and cash with the Commonwealth Bank, while "call" liabilities include deposits not bearing interest and notes in circulation. In computing the percentages in this table particulars relating to the Government Savings Bank of New South Wales (Rural Bank Department) have been excluded.

It is not strictly correct to assume that a division of deposits with cheque-paying banks into those bearing interest and not bearing interest would in all cases coincide with a definite division into fixed deposits and current accounts respectively, but in the absence of the data required to permit of an accurate apportionment, such a division has been adopted for the purposes of this analysis.

**CHEQUE-PAYING BANKS.—CASH RESERVE RATIOS.**

Quarter ended 30th June—	On Liabilities "At Call."		On Total Liabilities.	
	Commonwealth Bank.	Other Cheque-paying Banks.	Commonwealth Bank.	Other Cheque-paying Banks.
	%	%	%	%
1924 .. ..	48.7	40.3	16.4	17.5
1925 .. ..	68.4	46.2	24.8	19.6
1926 .. ..	62.0	44.2	22.8	18.2
1927 .. ..	29.7	44.3	10.3	17.7
1928 .. ..	19.7	47.5	6.5	18.1
1929 .. ..	19.7	43.8	14.1	15.8
1930 .. ..	24.4	41.9	16.7	13.5
1931 .. ..	11.6	65.3	8.4	19.6
1932 .. ..	18.4	56.7	10.7	17.3
1933 .. ..	21.9	40.1	10.1	13.7



(vii) *Advances, and Advances and Securities.—Percentage on Total Deposits.* The percentages of advances, and of advances and securities on total deposits, respectively, for the Commonwealth Bank, the Other Cheque-paying Banks, and for all Cheque-paying Banks, are shown in the following table. The data on which the percentages are based relate only to business within Australia.

For the Commonwealth Bank and other Cheque-paying Banks, "Advances" are represented by the item "Discounts, overdrafts, and all other assets (not including contingent assets)," which are combined with "Government and Municipal Securities" (including short-term loans in Australia) under the heading "Advances and Securities." "Deposits" include deposits of all kinds except those of Other Cheque-paying Banks with the Commonwealth Bank, i.e., "Cash with Commonwealth Bank." "Savings Bank Deposits" with the Commonwealth Bank, and "Advances and Securities" from these deposits are included prior to the separation of the Savings Bank business from the general business of the present Banking Department on 9th June, 1928.

In computing the percentages in this table, particulars relating to the Government Savings Bank of New South Wales (Rural Bank Department) have been excluded.

**CHEQUE-PAYING BANKS—PERCENTAGE OF ADVANCES AND ADVANCES AND SECURITIES ON TOTAL DEPOSITS.**

Quarter ended 30th June—	Advances on Total Deposits.			Advances and Securities on Total Deposits.		
	Common- wealth Bank.	Other Cheque- paying Banks.	Total.	Common- wealth Bank.	Other Cheque- paying Banks.	Total.
	%	%	%	%	%	%
1924.. ..	17.6	82.9	68.5	75.6	87.6	85.0
1925.. ..	16.8	78.8	65.1	71.5	84.0	81.3
1926.. ..	17.8	80.5	66.9	75.3	87.0	84.5
1927.. ..	23.4	87.4	73.8	96.0	93.0	93.6
1928.. ..	23.9	83.1	71.6	105.3	91.4	94.1
1929.. ..	52.8	86.9	83.9	101.9	95.1	95.7
1930.. ..	59.6	98.2	95.0	151.3	105.5	109.4
1931.. ..	56.5	92.8	89.9	228.7	101.1	111.0
1932.. ..	33.5	82.7	77.3	137.3	95.0	102.4
1933.. ..	18.0	85.3	81.3	137.2	104.1	112.7

(viii) *Deposits per head of Population.* Particulars of the average deposits per head of population, calculated on the mean population of the quarter, are given for the June quarter of each of the past five years in the following table. The figures given, which are based on the aggregate for all cheque-paying banks in each State, are not adjusted on account of the Government "set-off" accounts of the Commonwealth Bank.

**ALL CHEQUE-PAYING BANKS.—DEPOSITS (a) PER HEAD OF POPULATION.**

Quarter ended 30th June—	New South Wales. (a)	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Total.
	£	£	£	£	£	£	£	£
1929 ..	54.7	58.8	50.6	39.7	33.7	35.7	47.4	51.9
1930 ..	52.5	52.2	47.2	38.7	29.2	34.3	37.6	48.3
1931 ..	48.5	53.9	45.8	38.5	30.4	32.7	35.6	47.0
1932 ..	44.0	67.1	44.9	41.7	35.4	36.2	34.3	49.5
1933 ..	44.3	63.3	47.1	42.7	35.5	35.5	28.8	48.8

(a) Includes Federal Capital Territory.

It may be mentioned here that deposits of "other cheque-paying banks" with the Commonwealth Bank are treated in the returns as "balances due to other banks."

(ix) *Proportion of Non-Interest Bearing Deposits to Total Deposits.* The sub-joined table shows for each State the proportion of non-interest bearing deposits to the total deposits during the June quarter of each of the years 1929 to 1933. The figures relate to all cheque-paying banks and no adjustment has been made in respect of Government "set-off" accounts of the Commonwealth Bank.

**ALL CHEQUE-PAYING BANKS.—PROPORTION OF NON-INTEREST BEARING DEPOSITS TO TOTAL DEPOSITS.**

Quarter ended 30th June—	New South Wales. (a)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Total.
	%	%	%	%	%	%	%	%
1929 ..	41.9	33.3	41.1	32.8	49.3	38.7	54.9	38.7
1930 ..	37.0	28.3	33.8	28.8	43.9	36.2	52.2	33.5
1931 ..	34.0	26.3	33.0	25.8	40.2	29.1	49.2	31.0
1932 ..	37.1	25.0	33.1	26.5	39.9	31.6	49.3	31.2
1933 ..	34.7	26.9	33.1	23.9	37.3	29.9	46.1	30.8

(a) Includes Federal Capital Territory.

7. *Deposit Rates.*—The "Premiers Plan" for financial rehabilitation included, *inter alia*, provisions for the reduction of bank interest rates for deposits and advances. The steps taken in this direction are referred to in the Appendix to this volume, but the statement below shows the changes made in the deposit rates during 1931 to 1933.

**BANK DEPOSIT RATES.**

Dates.	Deposit Rates for—			
	Three Months.	Six Months.	Twelve Months.	Two Years.
	%	%	%	%
To 25th June, 1931..	4½	4½	5	5½
26th June, 1931 ..	3½	3½	4	4½
27th November, 1931 ..	3	3½	3½	4
8th March, 1932 ..	2½	3	3½	4
May-June, 1932 (a) ..	2½	3	3½	3½
1st November, 1932 ..	2½	2¾	3	3½
7th February, 1933..	2	2½	2½	3

(a) All banks did not take simultaneous action.

8. *Clearing House Returns.*—Particulars of the aggregate bank clearings for each capital city, as furnished by the Associated Banks, Melbourne, are given in the following table. Since October, 1929, transactions connected with the issue and redemption of Treasury Bills have resulted in largely inflated clearings. These transactions are of an

abnormal character, and for the years 1929 to 1932 are shown separately. A weekly average of bank clearings is compiled from information supplied by the Commonwealth Bank, Sydney, and published in the Quarterly Summary of Australian Statistics.

**CLEARING HOUSE RETURNS.—VALUE OF BILLS, CHEQUES, ETC., 1870 TO 1932.**

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1870 .. ..	..	(a)64,532	..	..	..	..
1880 .. ..	..	(a)85,877	..	..	..	..
1890 .. ..	..	315,190	..	..	..	..
1895 .. ..	108,509	130,787	..	..	..	..
1900 .. ..	144,080	159,949	..	..	..	..
1905 .. ..	189,826	187,632	32,255	..	..	..
1910 .. ..	274,344	261,383	61,060	..	..	..
1915 .. ..	357,803	299,295	96,291	60,950	..	..
1920 .. ..	764,546	725,006	160,539	166,011	80,758	..
1925 .. ..	909,114	803,083	192,968	171,092	101,085	25,557
1926 .. ..	954,253	790,111	195,710	178,898	103,523	25,691
1927 .. ..	1,034,894	825,676	192,274	186,752	111,454	26,805
1928 .. ..	1,033,511	762,851	196,566	164,166	112,503	28,226
1929—						
Ordinary Transactions .. ..	..	812,105	..	..	..	..
Treasury Bills Transactions .. ..	..	2,566	..	..	..	..
Total .. ..	1,043,320	814,671	196,253	156,686	114,587	27,365
1930—						
Ordinary Transactions .. ..	872,390	697,641	..	..	..	..
Treasury Bills Transactions .. ..	20,771	28,274	..	..	..	..
Total .. ..	893,161	725,915	167,999	125,684	89,034	23,092
1931—						
Ordinary Transactions .. ..	683,176	566,865	..	..	..	..
Treasury Bills Transactions .. ..	151,512	85,999	..	..	..	..
Total .. ..	834,688	652,864	144,814	96,867	71,356	18,057
1932—						
Ordinary Transactions .. ..	588,733	592,356	141,511	106,865	75,678	19,259
Treasury Bill Transactions .. ..	143,908	63,791	..	..	..	..
Total .. ..	732,641	656,147	141,511	106,865	75,678	19,259

(a) Figures now published for these years exclude payments in coin.

9. Rates of Exchange.—(i) *Australia on London.* The following statement, which has been prepared from data very kindly supplied by the General Manager of the Bank of New South Wales, Sydney, gives particulars of the various rates of exchange, Australia on London, in operation since 16th October, 1913. The details given show the value

in Australia of £100 in London according to the rates quoted by the Associated Banks for buying and selling £100 in London on telegraphic transfer. Prior to 30th October, 1920, when "T.T." buying rates were not quoted, the rate was determined approximately by applying the difference between the buying and selling rates for "On Demand" drafts to the quoted "T.T." selling rate.

EXCHANGE RATES.—AUSTRALIA ON LONDON, TELEGRAPHIC TRANSFER, 1913 TO 1932.

Date on which Rate began to Operate.	Exchange.			Commission for £100 (Sterling).
	London.	Australia (Mean of Buying and Selling Rates).		
	£ sterling 100	£ 100 plus	£ s. d.	s. d.
16th October, 1913 .. ..	.. ..	.. ..	0 6 3	8 9
19th August, 1914 .. ..	.. ..	.. ..	0 10 0	15 0
29th September, 1914 .. ..	.. ..	.. ..	0 15 0	15 0
24th October, 1914 .. ..	.. ..	.. ..	1 0 0	15 0
12th May, 1915 .. ..	.. ..	.. ..	0 17 6	15 0
30th September, 1915 .. ..	.. ..	.. ..	1 0 0	12 6
23rd February, 1916 .. ..	.. ..	.. ..	1 5 0	12 6
15th November, 1916 .. ..	.. ..	.. ..	0 18 9	13 9
29th May, 1917 .. ..	.. ..	.. ..	0 12 6	15 0
3rd October, 1917 .. ..	.. ..	.. ..	0 7 6	15 0
12th January, 1920 .. ..	.. ..	.. ..	0 2 6	15 0
8th October, 1920 .. ..	.. ..	.. ..	0 15 0	15 0
14th October, 1920 .. ..	.. ..	.. ..	0 13 9	16 3
30th October, 1920 .. ..	.. ..	.. ..	1 5 0	15 0
10th December, 1920 .. ..	.. ..	.. ..	1 15 0	15 0
23rd December, 1921 .. ..	.. ..	.. ..	1 10 0	15 0
17th February, 1922 .. ..	.. ..	.. ..	0 7 6	12 6
6th April, 1922 .. ..	.. ..	.. ..	0 15 0	15 0
15th May, 1922 .. ..	.. ..	.. ..	0 10 0	15 0
14th July, 1922 .. ..	.. ..	.. ..	0 2 6	15 0
8th September, 1922 .. ..	.. ..	100 less	0 3 9	13 9
10th October, 1922 .. ..	.. ..	.. ..	0 7 6	12 6
7th November, 1922 .. ..	.. ..	.. ..	0 10 0	15 0
14th January, 1924 .. ..	.. ..	.. ..	1 0 0	10 0
22nd February, 1924 .. ..	.. ..	.. ..	1 5 0	10 0
10th March, 1924 .. ..	.. ..	.. ..	1 10 0	10 0
8th May, 1924 .. ..	.. ..	.. ..	2 0 0	10 0
5th September, 1924 .. ..	.. ..	.. ..	2 5 0	10 0
29th September, 1924 .. ..	.. ..	.. ..	2 10 0	10 0
15th October, 1924 .. ..	.. ..	.. ..	3 0 0	10 0
6th May, 1925 .. ..	.. ..	.. ..	0 12 6	2 6
10th June, 1925 .. ..	.. ..	.. ..	0 2 6	2 6
9th June, 1926 .. ..	.. ..	.. ..	0 1 3	3 9
20th April, 1927 .. ..	.. ..	100 plus	0 6 3	3 9
27th June, 1927 .. ..	.. ..	.. ..	0 8 9	3 9
8th July, 1927 .. ..	.. ..	.. ..	0 11 3	3 9
19th March, 1928 .. ..	.. ..	.. ..	0 15 0	5 0
22nd July, 1929 .. ..	.. ..	.. ..	1 0 0	5 0
3rd September, 1929 .. ..	.. ..	.. ..	1 5 0	5 0
10th October, 1929 .. ..	.. ..	.. ..	1 10 0	5 0
18th December, 1929 .. ..	.. ..	.. ..	1 17 6	5 0
28th January, 1930 .. ..	.. ..	.. ..	2 6 3	6 3
17th February, 1930 .. ..	.. ..	.. ..	2 16 3	6 3
10th March, 1930 .. ..	.. ..	.. ..	3 16 3	6 3
24th March, 1930 .. ..	.. ..	.. ..	6 6 3	3 9
9th October, 1930 .. ..	.. ..	.. ..	8 15 0	5 0
6th January, 1931 .. ..	.. ..	.. ..	15 6 3	3 9
13th January, 1931 .. ..	.. ..	.. ..	18 3 9	3 9
17th January, 1931 .. ..	.. ..	.. ..	25 5 0	5 0
29th January, 1931 .. ..	.. ..	.. ..	30 5 0	5 0
18th March, 1932 .. ..	.. ..	.. ..	25 5 0	5 0

The "Commission" which represents the banks' "turn" on each £100 sterling exchanged has been computed by taking half the difference between the buying and selling rates.

(ii) *Sterling-Dollar rates.* The average of the daily quotations of the London–New York exchange rates are given for each month of the years 1931 to 1933 in the subjoined table.

STERLING-DOLLAR RATES.—AVERAGE RATE FOR EACH MONTH.

Month.	1931.	1932.	1933.
	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.
January .. .. .	4.855	3.430	3.372
February .. .. .	4.857	3.459	3.422
March .. .. .	4.859	3.634	3.436
April .. .. .	4.860	3.752	3.507
May .. .. .	4.864	3.676	3.938
June .. .. .	4.865	3.649	4.145
July .. .. .	4.857	3.552	4.644
August .. .. .	4.857	3.476	4.518
September .. .. .	4.542	3.471	4.662
October .. .. .	3.886	3.399	..
November .. .. .	3.719	3.277	..
December .. .. .	3.372	3.276	..

(iii) *Interstate.* Exchange rates between the several capital cities of the States at 30th June, 1932, were as follow:—

INTERSTATE EXCHANGE RATES, 30TH JUNE, 1932.

Between.	And—					
	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart and Launceston.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Sydney .. .. .	.. ..	2 6	2 6	5 0	10 0	5 0
Melbourne .. .. .	2 6	.. ..	7 6	2 6	7 6	5 0
Brisbane .. .. .	2 6	7 6	.. ..	10 0	12 6	10 0
Adelaide .. .. .	5 0	2 6	10 0	.. ..	5 0	7 6
Perth .. .. .	10 0	7 6	12 6	5 0	.. ..	12 6
Hobart and Launceston .. .. .	5 0	5 0	10 0	7 6	12 6	.. ..

## § 2. Savings Banks.

1. *General.*—The inauguration of Savings Banks in Australia dates from the year 1819, when a private Savings Bank was opened in Sydney, New South Wales. In the other States provision for placing deposits with Savings Banks dates from 1842 in Victoria; 1851 in Queensland; 1840 in South Australia; 1863 in Western Australia (a Savings Bank was opened in 1856 but was closed a year later); 1835 in Launceston; and 1845 in Hobart. Some of these early banks functioned as private institutions, but were later absorbed by or amalgamated with Government Savings Banks, except the Hobart and Launceston institutions, which have been Trustee Savings Banks since 1848. With these two exceptions all Savings Banks operating in the States are now either Commonwealth or State Government institutions.

Post Office Savings Banks were established in all States except South Australia dating from 1863 onwards.

2. *The Commonwealth Savings Bank.*—The Commonwealth Savings Bank opened for business in Victoria on the 15th July, 1912; in Queensland on the 16th September, 1912; in the Northern Territory on the 21st October, 1912; and in New South Wales, South Australia and Western Australia on the 13th January, 1913. The Tasmanian

State Savings Bank was absorbed by the Commonwealth Bank in January, 1913, and the Queensland State Savings Bank was taken over in 1920. The Savings Bank Department was separated from the General Bank in June, 1928, and has since then operated independently, publishing its own balance-sheets and profit and loss accounts.

3. **Recent Amalgamations.**—(i) *Government Savings Bank of New South Wales.*—Owing to the depletion of the liquid assets of the bank consequent upon the continuous demands of depositors, the Commissioners, after abortive negotiations for the absorption of the institution by the Commonwealth Savings Bank, decided to suspend payments to depositors from the 22nd April, 1931, until further notice.

On the 7th September, 1931, the Government appointed new Commissioners, and the Savings Bank re-opened, accepting deposits repayable on demand in what were termed "new business" accounts. No arrangements had then been completed to enable depositors in the "old business" division to withdraw deposits, although transfers from one account to another in that division were permitted.

Negotiations for the absorption of the Government Savings Bank by the Commonwealth Savings Bank were re-opened by the new Commissioners, and early in December, 1931, the transfer was arranged. The full terms of the agreement are contained in the New South Wales Act No. 62 of 1931. The Commonwealth Savings Bank on and from the 15th December, 1931, provided relief to depositors in the "old business" division to the extent of up to £10 or 10 per cent. of their deposits, whichever was the greater, and early in 1932 depositors were allowed full access to their deposits.

(ii) *State Savings Bank of Western Australia.*—During August, 1931, increasing withdrawals caused the Government of Western Australia to negotiate for the amalgamation of the State Savings Bank with the Commonwealth Savings Bank, and the transfer was effected in October, 1931.

4. **Extension of Facilities.**—The prime object of the foundation of Savings Banks in Australia was the encouragement of thrift—deposits of one shilling and upwards being accepted—nevertheless the facilities offered, while preserving the original object, have led to developments in another direction. Although depositors may not operate on their accounts by means of cheques, they have practically all the other advantages of a current account, in addition to receiving interest on their minimum monthly balances, while no charge is made by the banks for keeping the accounts.

For many years considerable use has been made of the Savings Bank account as an alternative to maintaining a fixed deposit with a cheque-paying bank. Deposits in Savings Banks may be withdrawn at any time with a minimum loss of interest, the rate of which is now about the same as that offered by trading banks for six months' deposits.

5. **Classification of Depositors' Balances.**—The classification of deposits published by Savings Banks does not permit of a fully detailed analysis with respect to Australia as a whole, but information supplied by four State institutions shows that at 30th June, 1931, the amount on deposit in accounts with balances of less than £100 represented 21 per cent. of the total deposits; balances of over £100 but under £500, 48 per cent.; over £500 but under £750, 16 per cent.; over £750 but under £1,000, 8 per cent.; while those of over £1,000 accounted for 7 per cent. School, Penny Bank, and Special Purpose accounts have been excluded in determining the above percentages. At 30th June, 1930, it was estimated that approximately 95 per cent. of the accounts open had balances of under £300, while the deposits in such accounts represented about 48 per cent. of the total amount on deposit. In the absence of complete information, therefore, inferences respecting the amount of deposits per head of population must be made with caution.

6. **Number of Accounts.**—No statement is shown herein regarding the number of accounts because, in some States, it is possible for the same person to have an account in the Commonwealth Savings Bank as well as in the State Savings Bank. The effect of this multiplication of accounts was demonstrated by the reduction of numbers which followed the amalgamations referred to in para. 3 above.

7. Rates of Interest on Deposits.—The "Premiers' Plan" of 1931, which is dealt with in the appendix to this volume, provided, *inter alia*, for the reduction of the banks' rate of interest on deposits and advances. The Commonwealth Savings Bank reduced the rate of interest on depositors' balances by one per cent. from 1st July, 1931, and the other Savings Banks have since taken similar action. The statements given hereunder show the rates of interest allowed at 30th June, 1931, 1932, and 1933, respectively by (i) State or Trustee Banks and (ii) by the Commonwealth Bank.

The table hereunder refers to interest rates allowed by State Savings Banks :—

STATE SAVINGS BANKS—INTEREST RATES ON DEPOSITS.

State.	Interest-bearing Limit.	Rates at 30th June, 1931.	Rates at 30th June, 1932.	Rates at 30th June, 1933.
New South Wales	£ 1,000	% 4	% (d)	% (d)
Victoria ..	1,000	4 (a)	3 ; (b) 3½	2½
Queensland ..	(e)	(e)	(e)	(e)
South Australia	1,000	4½	3½	3
Western Australia	Unlimited	£1-£500..4 £501-£1,000..3½ Over £1,000..3	(d)	(d)
Tasmania (f)—				
Hobart ..	300	4½ ; (c) 5	3 ; (c) 4	2½ ; (c) 3
Launceston ..	300	4½	3½	2½

(a) Similar rate for Deposit Stock. (b) Deposit Stock. (c) Fixed Deposits, twelve months. (d) Absorbed by Commonwealth Bank, see following table. (e) State Savings Bank amalgamated with Commonwealth Bank in 1920. (f) Trustee Savings Banks.

Particulars regarding the rates allowed by the Commonwealth Savings Bank are incorporated in the following table :—

COMMONWEALTH SAVINGS BANK—INTEREST RATES ON DEPOSITS.

State.	Interest-bearing Limit.	Rate at 30th June, 1931.	Rate at 30th June, 1932.	Rate at 30th June, 1933.
New South Wales	£1,300	% 4	% 3	% 2½
Victoria ..		£1-£500 .. 4	3	2
South Australia		£501-£1,000 .. 3½	2½	
Western Australia		£1,001-£1,300 3	2	
Tasmania ..	£2,000	% 4	% 3	% 2½
Queensland ..		£1-£500 .. 4	3	2½
		£501-£2,000 .. 3½	2½	2

On 1st July, 1932, a reduction of one-quarter of one per cent. in the rate of interest allowed on deposits became effective, followed by a similar reduction from 1st November, 1932.

8. Statistical Returns.—Commencing from July, 1931, monthly returns have been furnished by Savings Bank authorities, and the collated data is disseminated in the form of monthly press notices. In addition, the particulars are published in the Quarterly Summary of Australian Statistics issued by the Commonwealth Statistician. The information given in the following paragraphs relates to the deposits at the 30th June in each year. For convenience of reference the information has been grouped under the following headings :—

- (i) All Savings Banks ;
- (ii) Commonwealth Savings Banks ; and
- (iii) State (including Trustee Banks in Tasmania) Savings Banks.

9. All Savings Banks.—(i) *Returns for Year 1931-32.* The following statement gives details of the business transacted by all Savings Banks for the year 1931-32.

## ALL SAVINGS BANKS.—PARTICULARS, 1931-32.

States and Territories.	Amount on deposit at 30th June, 1931.	Amount deposited during year 1931-32.	Interest added during year 1931-32.	Total.	Amounts withdrawn during year 1931-32.	Amount on deposit at 30th June, 1932.
	£	£	£	£	£	£
New South Wales	69,810,769	52,799,608	2,025,943	124,636,320	52,988,451	71,647,869
Victoria ..	63,242,528	45,025,866	2,002,832	110,271,226	44,591,006	65,680,220
Queensland ..	22,354,325	19,750,082	630,650	42,735,057	19,783,299	22,951,758
South Australia ..	21,422,058	11,947,254	693,920	34,063,232	12,496,407	21,566,825
Western Australia	10,867,421	10,619,974	279,821	21,767,216	11,549,477	10,217,739
Tasmania ..	5,365,824	3,566,210	187,106	9,119,140	3,532,520	5,586,620
Northern Territory	43,258	29,338	1,164	73,760	33,320	40,440
Federal Capital Territory ..	269,214	294,741	7,455	571,410	296,574	274,836
Total ..	193,375,397	144,033,073	5,828,891	343,237,361	145,271,054	197,966,307

(ii) *Deposits—Years 1928 to 1933.* The table hereunder shows for all Savings Banks the amount at credit of depositors and the average deposits per head of population at 30th June, 1928 to 1933.

## ALL SAVINGS BANKS.—DEPOSITS.

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	All States.
TOTAL.									
	£	£	£	£	£	£	£	£	£
1928	81,627,667	68,826,768	23,324,829	24,941,688	10,645,373	5,522,766	64,617	234,754	215,188,462
1929	85,727,513	72,706,991	24,075,504	25,228,402	11,609,190	5,811,458	47,291	279,355	225,485,704
1930	82,465,430	69,367,253	23,901,136	24,012,176	11,728,617	5,699,321	48,913	287,671	217,510,517
1931	69,810,769	63,242,528	22,354,325	21,422,058	10,867,421	5,365,824	43,258	269,214	193,375,397
1932	71,647,869	65,680,220	22,951,758	21,566,825	10,217,739	5,586,620	40,440	274,836	197,966,307
1933	72,307,685	67,813,543	23,453,017	22,515,288	10,064,463	5,864,807	38,411	225,054	202,282,269
PER HEAD OF POPULATION.									
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1928	33 13 9	39 6 10	25 11 8	43 3 5	26 12 8	26 4 10	15 4 4	29 6 1	34 4 10
1929	34 16 3	41 2 8	25 19 5	43 10 10	28 3 11	27 6 11	11 6 10	33 10 3	35 7 7
1930	33 3 8	38 18 0	25 7 4	41 7 2	28 0 4	26 8 10	10 5 0	32 10 9	33 15 7
1931	27 16 11	35 3 8	23 5 10	36 14 2	25 16 9	24 9 9	9 5 11	31 16 6	29 14 11
1932	28 6 10	36 7 8	23 11 9	36 16 0	24 3 8	25 5 4	8 19 6	32 15 6	30 4 7
1933	27 16 5	37 6 0	24 17 5	38 15 3	23 0 0	25 10 10	8 18 8	25 3 2	30 10 9

For the year ended 30th June, 1933, all States combined show an increase in deposits of £4,315,962 or about 2.2 per cent. All the States except Western Australia, where the fall was 1.5 per cent., showed increases. In Tasmania the increase amounted to 5 per cent.; in South Australia to 4 per cent.; in Victoria to 3 per cent.; in Queensland to 2 per cent.; and in New South Wales to about 1 per cent.

Since the year 1921, deposits per head increased at the rate of roughly 3 per cent. per annum up to a high point of £35 per head in 1929. In the war years before 1921 the rate of increase was even more rapid. From June, 1929, to June, 1931, there was a decline of 16 per cent., but the downward trend was reversed and deposits increased by nearly 2 per cent. in 1931-32 and by a further 2 per cent. in 1932-33. The deposits per head, however, are still about 10 per cent. below the high point of 1929.



Considered in relation to purchasing power, the figures are more satisfactory. Retail prices (food and housing) have fallen 26 per cent. since 1929, while the purchasing power of deposits per head has increased by about 16 per cent. during the same period although the nominal value has fallen 14 per cent.

10. Commonwealth Savings Bank.—(i) *Returns for Year 1931-32.* Returns for the States and Territories for the year 1931-32 have been incorporated in the table below.

COMMONWEALTH SAVINGS BANK.—RETURNS, 1931-32.

States and Territories.	Amount on Deposit at 30th June, 1931.	Amount Deposited during Year 1931-32.	Interest Added during Year 1931-32.	Total.	Amounts Withdrawn during Year 1931-32.	Amounts on Deposit at 30th June, 1932.
	£	£	£	£	£	£
New South Wales	(a) 14,492,937	47,783,310	2,025,229	64,301,476	47,866,531	71,647,869
Victoria ..	6,104,264	7,940,710	183,791	14,228,165	7,129,348	7,098,817
Queensland ..	22,354,325	19,750,082	630,650	42,735,057	19,783,299	22,951,758
South Australia ..	1,951,151	1,866,958	56,767	3,874,876	1,747,588	2,127,288
Western Australia	(a) 2,788,373	8,661,980	274,136	11,724,489	8,762,341	10,217,739
Tasmania ..	1,519,418	1,085,255	42,887	2,647,560	1,065,842	1,581,718
Northern Territory	43,258	29,338	1,164	73,760	33,320	40,440
Federal Cap. Ter	(a) 219,935	287,759	7,455	515,149	290,882	274,836
Total ..	49,473,661	87,405,392	3,221,479	140,100,532	86,679,151	115,940,465

(a) See letterpress below.

The foregoing particulars include details regarding accounts formerly with the Government Savings Bank of New South Wales which were taken over on the 14th December, 1932, and of the Government Savings Bank of Western Australia, taken over on 31st October, 1932. The amounts taken over were as follow :—New South Wales, £55,212,924; Federal Capital Territory, £50,569; and Western Australia, £7,255,591.

(ii) *Deposits—Years 1928 to 1933.* The amount on deposit with the Commonwealth Savings Bank in each State, in the Territories of Papua and New Guinea, and in London, at the 30th June in each of the years 1928 to 1933 was as follows :—

COMMONWEALTH SAVINGS BANK.—DEPOSITS.

Place of Deposit.	At 30th June—					
	1928.	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£	£
New South Wales	10,974,932	11,832,307	11,899,198	14,492,937	(a) 71,647,869	72,307,685
Victoria ..	6,045,409	6,577,350	6,424,278	6,104,264	7,098,817	7,587,472
Queensland ..	23,324,829	24,075,504	23,901,136	22,354,325	22,951,758	23,453,017
South Australia ..	2,365,059	2,296,777	2,145,811	1,951,151	2,127,288	2,204,022
Western Australia	2,949,438	3,214,231	3,240,252	2,788,373	(a) 10,217,739	10,064,464
Tasmania ..	1,646,895	1,801,289	1,682,727	1,519,418	1,581,718	1,645,053
Northern Territory	64,617	47,291	48,913	43,258	40,440	38,411
Federal Capital Territory ..	196,017	213,882	220,559	219,935	(a) 274,836	225,054
Total ..	47,567,196	50,058,631	49,562,874	49,473,661	115,940,465	117,525,178
Papua and New Guinea (b) ..	106,217	112,583	114,914	107,919	125,931	135,749
London (b) ..	450,739	434,141	371,936	236,151	233,605	282,554
Grand Total ..	48,124,152	50,605,355	50,049,724	49,817,731	116,300,001	117,943,481

(a) State Savings Bank absorbed during 1931-32. (b) Not included in the figures given in paras. 9 (i) and (ii) and 10 (i).

(iii) *Balance Sheet, 30th June, 1932.* The Commonwealth Savings Bank publishes a half-yearly balance-sheet, and the statement hereunder shows the position at the 30th June, 1932.

## COMMONWEALTH SAVINGS BANK.(a)—BALANCE-SHEET, 30TH JUNE, 1932.

Liabilities.		Assets.	
	£		£
Reserve Fund ..	1,658,382	Coin and Cash Balances ..	2,888,762
Depositors' Balances ..	1,116,300,001	Australian Notes ..	152,834
Other Liabilities ..	3,748,484	Government Securities ..	79,744,506
		Securities of Municipal and Other Public Authorities ..	31,890,314
		Other Assets ..	7,030,451
	121,706,867		121,706,867

(a) Includes London, Papua and Territory of New Guinea Branches.

(iv) *Profits.* For the year ended 30th June, 1932, the profits earned by the Commonwealth Savings Bank were £259,420, one-half of which was paid to the National Debt Sinking Fund and the remainder carried to reserves. The aggregate net profit from the inception of the bank to the 30th June, 1932, was £2,781,996.

11. *State Savings Banks.*—(i) *Returns for 1931-32.* Particulars of the transactions of all State Savings Banks for the year 1931-32 are given hereunder. Throughout the following tables the figures for Tasmania refer to the Trustee Savings Banks in Hobart and Launceston. Although the accounts of these institutions are made up for half-yearly periods ending 28th February and 31st August, the managements have furnished particulars of deposits at 30th June in each year since and including 1929.

## STATE SAVINGS BANKS.—RETURNS, 1931-32.

State or Territory.	Amount on Deposit at 30th June, 1931.	Deposits during 1931-32.	Interest added 1931-32.	Total.	Withdrawals during 1931-32.	Total Deposits 30th June, 1932.
	£	£	£	£	£	£
New South Wales ..	55,317,832	5,016,298	714	60,334,844	5,121,920	(d)
Victoria ..	57,138,264	37,085,156	1,819,041	96,043,061	37,461,658	58,581,403
Queensland (a) ..	..	..	..	..	..	..
South Australia ..	19,470,907	10,080,296	637,153	30,188,356	10,748,819	19,439,537
Western Australia ..	8,079,048	1,957,994	5,685	10,042,727	2,787,136	(d)
Tasmania (b) ..	3,846,406	2,480,955	144,219	6,471,580	2,466,678	4,004,902
Northern Territory (c)	..	..	..	..	..	..
Federal Capital Territory	49,279	6,982	..	56,261	5,692	(d)
Total ..	143,901,736	56,627,681	2,607,412	203,136,829	58,591,903	82,025,842

(a) State Savings Bank absorbed by Commonwealth Bank in 1920. (b) Trustee Savings Banks, Hobart and Launceston. (c) No State Savings Bank in operation. (d) See letterpress below.

The following amounts on deposit, which were taken over by the Commonwealth Savings Bank upon the absorption of the Government Savings Banks of New South Wales and Western Australia, have been excluded from the foregoing figures:—

£	
Government Savings Bank of New South Wales—	
New South Wales ..	55,212,924
Federal Capital Territory ..	50,569
Government Savings Bank of Western Australia ..	7,255,591

(ii) *Deposits—Years 1928 to 1933.* The following statement shows the amount on deposit with State Savings Banks at the 30th June in each of the years 1928 to 1933.

## STATE SAVINGS BANKS.—DEPOSITS.

State or Territory.	At 30th June—					
	1928.	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£	£
New South Wales ..	70,652,735	73,895,206	70,566,232	55,317,832	(d)	(d)
Victoria ..	62,781,359	66,129,641	62,942,975	57,138,264	58,581,403	60,226,071
Queensland (a) ..	..	..	..	..	..	..
South Australia ..	22,576,629	22,931,625	21,866,365	19,470,907	19,439,537	20,311,266
Western Australia ..	7,695,935	8,394,939	8,488,365	8,079,048	(d)	(d)
Tasmania (e) ..	(c) 3,875,871	4,010,169	4,016,594	3,846,406	4,004,902	4,219,754
Northern Territory (b) ..	..	..	..	..	..	..
Federal Capital Territory	38,737	65,473	67,112	49,279	(d)	(d)
<b>Total .. ..</b>	<b>167,621,266</b>	<b>175,427,073</b>	<b>167,947,643</b>	<b>143,901,736</b>	<b>82,025,842</b>	<b>84,757,091</b>

(a) State Savings Bank amalgamated with Commonwealth Bank in 1920. (b) No State Savings Bank in operation. (c) At 31st August. (d) State Savings Bank amalgamated with Commonwealth Savings Bank. (e) Trustee Savings Banks, Hobart and Launceston.

(iii) *Assets.* At 30th June, 1932, the assets of all State Savings Banks amounted to £90,406,635, distributed as shown hereunder.

## STATE SAVINGS BANKS.—ASSETS, 30TH JUNE, 1932.

Particulars.	New South Wales. (b)(d)	Victoria.	Queensland. (a)	South Australia.	Western Australia. (d)	Tasmania. (c)	Total.
	£	£	£	£	£	£	£
Government Securities ..	..	28,678,534	..	9,964,956	..	1,894,005	40,537,495
Municipal Securities ..	..	2,369,671	..	350,664	..	445,917	3,166,252
Other Public Securities ..	..	16,182,179	..	..	..	..	16,182,179
Mortgages ..	..	1,619,823	..	6,204,086	..	941,330	8,765,239
Other Investments ..	..	36,454	..	..	..	..	36,454
Outstanding Interest, Dividends and Rents ..	..	628,462	..	250,673	..	46,578	925,713
War Service Homes Landed and House Property ..	..	2,453,021	..	..	..	..	2,453,021
Fixed Deposits ..	..	819,110	..	112,149	..	11,601	942,860
Cash in hand, in transit and on Current Account ..	..	9,225,000	..	2,489,500	..	..	11,714,500
All other Assets ..	..	3,149,444	..	1,433,565	..	1,098,719	5,681,728
	..	..	..	..	..	1,194	1,194
<b>Total Assets ..</b>	<b>..</b>	<b>65,161,698</b>	<b>..</b>	<b>20,805,593</b>	<b>..</b>	<b>4,439,344</b>	<b>90,406,635</b>

(a) State Savings Bank amalgamated with Commonwealth Bank in 1920. (b) Includes Federal Capital Territory. (c) Year ended 31st August, 1932. See para. (1). (d) Amalgamated with Commonwealth Bank.

(iv) *Profit and Loss Accounts 1931-32.* Details of the Profit and Loss Accounts of the several State Savings Banks for the year 1931-32 are given in the following table:—

**STATE SAVINGS BANKS.—PROFIT AND LOSS ACCOUNTS FOR YEAR  
ENDED 30TH JUNE, 1932.**

Particulars.	New South Wales. (a)(e)	Victoria.	Queens- land. (b)	South Australia.	Western Australia. (e)	Tasmania. (c)	Total.
<i>Dr.</i>	£	£	£	£	£	£	£
Interest allotted to Depositors ..	..	1,819,641	..	637,153	..	124,296	2,581,090
Amount carried to Reserves and Depreciation Funds ..	..	300,000	..	146,756	..	19,000	465,756
Writing off Bank Premises ..	..	3,600	..	..	..	..	3,600
Expenses of Management ..	..	445,409	..	112,964	..	26,451	584,824
All other Expenses ..	..	143,458	..	(d) 56,195	..	4,794	204,447
Balance carried forward ..	..	199,878	..	96,743	..	80,266	376,887
<b>Total ..</b>	<b>..</b>	<b>2,911,986</b>	<b>..</b>	<b>1,049,811</b>	<b>..</b>	<b>254,807</b>	<b>4,216,604</b>
<i>Cr.</i>							
Balance brought forward ..	..	353,047	..	98,556	..	80,698	532,301
Interest, Dividends, and Rents ..	..	2,558,939	..	911,255	..	174,109	3,684,303
All other Receipts ..	..		..	40,000	..		
<b>Total ..</b>	<b>..</b>	<b>2,911,986</b>	<b>..</b>	<b>1,049,811</b>	<b>..</b>	<b>254,807</b>	<b>4,216,604</b>

(a) Includes Federal Capital Territory. (b) State Savings Bank amalgamated with Commonwealth Bank in 1920. (c) Year ended 31st August, 1932; see para. (i). (d) Includes £40,000, provision for interest accrued on Depositors' Balances from 7th to 30th June, 1932. (e) State Savings Bank amalgamated with Commonwealth Savings Bank in 1931-32.

## C. COMPANIES.

### § 1. General.

Statistics available in regard to registered companies embrace (a) Returns relating to Trustees, Executors and Agency Companies; (b) Returns relating to Registered Building and Investment Societies; and (c) Returns relating to Registered Co-operative Societies.

### § 2. Trustees, Executors and Agency Companies.

Returns for 1932 are available for eight Victorian, two New South Wales, one Queensland, four South Australian, two Western Australian and four Tasmanian companies. The paid-up capital of these twenty-one companies amounted to £1,355,952; reserve funds and undivided profits to £1,039,717; other liabilities, £538,644; total liabilities, including capital, £2,934,315. Among the assets are included—Deposits with Governments, £226,306; other investments in public securities, fixed deposits, etc., £613,389; loans on mortgage, £469,905; property owned, £1,039,966; other assets, £584,749. Of the twenty-one companies, ten show the total amount of the estates, etc., under administration, the total for 1932 being approximately 134 millions. In respect of the twenty-one companies, net profits for the year totalled £120,324, of which £96,581 was paid in dividends.

### § 3. Registered Building and Investment Societies.

1. *Summary.*—Returns have been received relating to 215 societies, but the information is not exhaustive, as particulars regarding unimportant organizations are not included.

#### REGISTERED BUILDING AND INVESTMENT SOCIETIES.—SUMMARY, 1931.

Particulars.	N.S.W., <sup>(d)</sup> 1931.	Vic., 1930-31.	Q'land., 1930-31.	S. Aust., 1931.	W. Aust., 1930-31.	Tas., 1931.	Total.
Societies making returns—							
Permanent .. No.	7	22	} 9	{ 8 16 }	12	4	215
Terminating .. No.	134	3					
Total .. No.	141	25	9	24	12	4	215
Number of shareholders ..	(c) 2,464	9,281	7,881	14,081	17,353	4,711	55,771
Number of shares ..	(c) 29,717	(a)	2,128,670	50,760	(a)	47,449	2,256,596
Number of borrowers ..	4,759	12,040	5,724	3,251	3,173	1,648	30,595
Income for year from interest .. £	185,507	344,568	103,912	23,622	65,454	51,801	774,864
Working expenses for year .. £	106,111	220,585	13,262	12,330	52,484	7,047	411,819
Amount of deposits during year .. £	547,608	1,697,181	198,118	142,531	219,282	31,203	2,835,923
Repayment of loans during year .. £	620,683	823,169	248,479	80,601	225,167	108,767	2,106,866
Loans granted during year .. £	489,219	301,094	235,987	59,760	136,234	58,551	1,280,845

(a) Not available. (b) Exclusive of Victoria and Western Australia. (c) Permanent societies only. (d) Excludes six Terminating Societies and four Investment Societies for which complete details are not available.

2. *Liabilities and Assets.*—The balance-sheets of the companies in respect of which particulars of liabilities and assets are stated hereunder cover periods ended during the year 1931. The figures quoted for the States of New South Wales, South Australia and Tasmania refer to the calendar year 1931, while those for the remaining States are for the fiscal year 1930-31.

#### REGISTERED BUILDING AND INVESTMENT SOCIETIES.—LIABILITIES, 1931.

State.	Paid-up Capital or Subscriptions.	Reserve Funds.	Deposits.	Bank Overdrafts and other Liabilities.	Total Liabilities.
	£	£	£	£	£
New South Wales ..	2,875,355	705,813	610,010	87,128	4,278,306
Victoria ..	2,031,218	847,174	1,689,764	237,040	4,805,196
Queensland ..	1,436,659	45,262	5,744	39,036	1,526,701
South Australia ..	743,126	56,630	49,960	14,923	864,639
Western Australia ..	948,561	..	104,240	48,478	1,101,279
Tasmania ..	344,601	102,470	283,754	5,408	736,233
Total ..	8,379,520	1,757,349	2,743,472	432,013	13,312,354

## REGISTERED BUILDING AND INVESTMENT SOCIETIES.—ASSETS, 1931.

State.	Advances on • Mortgage.	Landed and House Pro- perty, Furni- ture, etc.	Cash In Hand and on Deposit and other Assets.	Total Assets.
	£	£	£	£
New South Wales .. ..	3,623,332	(a)	(b) 654,974	4,278,306
Victoria .. ..	4,352,250	281,042	171,904	4,805,196
Queensland .. ..	1,478,339	7,180	41,182	1,526,701
South Australia .. ..	791,070	33,353	40,216	864,639
Western Australia .. ..	1,018,664	28,000	54,615	1,101,279
Tasmania .. ..	631,121	10,150	94,962	736,233
Total .. ..	11,894,776	359,725	1,057,853	13,312,354

(a) Included in next column.

(b) Includes Landed and House Property, Furniture, &amp;c.

## § 4. Co-operative Societies.

1. General.—The returns relating to Co-operative Societies have previously been divided into two classes—(i) those engaged in the manufacture and marketing of primary products and trade requirements; and (ii) those engaged in retailing general household requirements. The former may be described briefly as Producers' Co-operative and the latter as Consumers' Co-operative Societies. Particulars of those Producers' Societies which are also Consumers' Societies have been compiled separately for 1931 and are published for the first time in the statements following which show the number of societies, the membership, and the financial results for the year 1931. The particulars given for New South Wales relate to societies registered under the Co-operation Acts 1923–1929.

## CO-OPERATIVE SOCIETIES.—SUMMARY, 1931.

Particulars.	N.S.W. 1931.(a)	Vic. 1930–31.	Qld. 1930–31.	S.A. 1931.	W.A. 1930–31.	Tas. 1930–31.	Total.
<b>PRODUCERS' SOCIETIES.</b>							
Number of Societies .. ..	98	63	48	31	2	12	254
Number of Branches .. ..	(c)	23	26	9	1	22	(d) 81
Number of Members .. ..	43,941	39,605	30,364	6,727	719	6,177	127,533
Gross Turnover (Sales) ..	£ 14,060,694	£ 4,410,381	£ 4,568,110	£ 557,184	£ 38,141	£ 453,379	£ 24,087,889
Other Income .. ..	£ 22,167	£ 263,069	£ 245,998	£ 81,987	£ 2,161	£ 16,414	£ 631,796
Total Income .. ..	£ 14,082,861	£ 4,673,450	£ 4,814,108	£ 639,171	£ 40,302	£ 469,793	£ 24,719,685
Total Purchases during Year £	£ 8,903,093	£ 4,047,833	£ 3,637,452	£ 424,674	£ 28,100	£ 350,083	£ 17,391,235
Total Expenditure (b) ..	£ 11,327,196	£ 5,180,491	£ 4,512,509	£ 659,580	£ 37,518	£ 443,393	£ 22,160,687
Rebates and Bonuses ..	£ 21,423	£ 174	£ 1,241	£ 23,334	£ 1,830	£ ..	£ 48,002
Dividends on Share Capital £	£ 20,223	£ 24,821	£ 14,850	£ 12,425	£ 136	£ 2,559	£ 75,014
<b>CONSUMERS' SOCIETIES.</b>							
Number of Societies .. ..	48	30	6	9	5	3	101
Number of Branches .. ..	(c)	12	34	47	..	2	(d) 95
Number of Members .. ..	42,547	13,342	23,380	38,548	1,442	496	119,755
Gross Turnover (Sales) ..	£ 2,466,126	£ 827,765	£ 44,038	£ 893,457	£ 66,947	£ 67,184	£ 4,367,517
Other Income .. ..	£ 33,444	£ 22,692	£ 17,089	£ 26,904	£ 1,507	£ 759	£ 102,395
Total Income .. ..	£ 2,499,570	£ 850,457	£ 61,127	£ 922,361	£ 68,454	£ 67,943	£ 4,469,912
Total Purchases during Year £	£ 1,739,913	£ 642,618	£ 32,201	£ 658,744	£ 51,565	£ 51,420	£ 3,176,461
Total Expenditure (b) ..	£ 2,267,118	£ 790,323	£ 57,210	£ 856,143	£ 63,875	£ 61,674	£ 4,096,343
Rebates and Bonuses ..	£ 149,856	£ 35,693	£ 779	£ 2,889	£ 3,844	£ ..	£ 193,061
Dividends on Share Capital £	£ 27,348	£ 6,328	£ 7,625	£ 21,235	£ 393	£ ..	£ 62,929

(a) Particulars relate to Societies registered under Co-operation Acts, 1923–29. (b) Working expenses and purchases. (c) Not available. (d) Excluding New South Wales.

CO-OPERATIVE SOCIETIES.—SUMMARY, 1931—*continued.*

Particulars.	N.S.W. 1931.	Vic. 1930-31.	Q'ld. 1930-31.	S.A. 1931.	W.A. 1930-31.	Tas. 1930-31.	Total.
<b>SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS.'</b>							
Number of Societies ..	..	8	6	3	57	..	74
Number of Branches ..	..	10	29	1	63	..	103
Number of Members ..	..	3,660	8,076	516	16,764	..	29,016
Gross Turnover (Sales) £ ..	..	993,713	1,542,231	100,850	1,710,392	..	4,347,186
Other Income .. £ ..	..	6,768	6,415	4,951	200,398	..	218,532
Total Income .. £ ..	..	1,000,481	1,548,646	105,801	1,910,790	..	4,565,718
Total Purchases during year .. £ ..	..	802,399	1,148,275	90,358	1,439,855	..	3,480,887
Total Expenditure (a) .. £ ..	..	993,225	1,491,308	103,619	1,984,950	..	4,573,102
Rebates and Bonuses .. £ ..	..	7,035	22,892	1,614	31,738	..	63,279
Dividends on Share Capital £ ..	..	2,871	5,616	1,455	7,262	..	17,204

(a) Working expenses and purchases.

2. Liabilities and Assets.—The next table gives the liabilities and assets.

## CO-OPERATIVE ORGANIZATIONS.—LIABILITIES AND ASSETS, 1931.

Particulars.	N.S.W. 1931.(c)	Vic. 1930-31.	Qld. 1930-31.	S.A. 1931.	W.A. 1930-31.	Tas. 1930-31.	Total.
<b>PRODUCERS' SOCIETIES.</b>							
<b>Liabilities—</b>	£	£	£	£	£	£	£
Paid-up Capital ..	883,834	932,454	451,859	181,743	6,027	86,859	2,542,776
Loan Capital ..	..	187,029	156,170	231,829	1,000	44,331	620,359
Bank Overdraft ..	a 1,698,411	1,338,612	151,662	111,326	..	8,804	3,308,815
Accumulated Profits ..	..	154,442	37,130	30,259	5,310	11,787	1,643,379
Reserve Funds ..	675,822	216,912	354,988	138,463	340	17,926	..
Sundry Creditors ..	(b)	363,469	385,506	296,889	2,313	30,524	1,078,701
Other Liabilities ..	..	63,494	74,171	206,557	20	4,264	348,506
<b>Total Liabilities ..</b>	<b>3,258,067</b>	<b>3,256,412</b>	<b>1,611,486</b>	<b>1,197,066</b>	<b>15,010</b>	<b>204,495</b>	<b>9,542,536</b>
<b>Assets—</b>							
Land and Buildings ..	..	..	487,863	145,061	4,156	97,489	4,549,109
Machinery, Plant and other fixed Assets ..	1,739,770	1,208,045	562,342	262,306	5,167	36,910	..
Stocks ..	452,559	1,027,164	203,695	568,044	504	30,803	2,276,769
Sundry Debtors ..	841,018	703,326	230,246	89,455	1,972	29,144	1,895,161
Cash in hand and on deposit ..	124,854	41,276	72,501	65,028	2,179	2,296	308,134
Profit and Loss Account ..	..	120,123	8,299	16,881	..	4,457	149,760
Other Assets ..	99,866	156,378	46,540	56,291	1,032	3,396	363,503
<b>Total Assets ..</b>	<b>3,258,067</b>	<b>3,256,312</b>	<b>1,611,486</b>	<b>1,197,066</b>	<b>15,010</b>	<b>204,495</b>	<b>9,542,436</b>

(a) Including Sundry Creditors. (b) Included in Bank Overdraft, &amp;c. (c) Particulars relate to Societies registered under Co-operation Acts, 1923-1929.

CO-OPERATIVE ORGANIZATIONS.—LIABILITIES AND ASSETS, 1931—*continued.*

Particulars.	N.S.W.(c) 1931.	Vic. 1930-31.	Qld. 1930-31.	S.A. 1931.	W.A. 1930-31.	Tas. 1930-31.	Total.
<b>CONSUMERS' SOCIETIES.</b>							
<b>Liabilities—</b>	£	£	£	£	£	£	£
Paid-up Capital ..	643,465	174,387	29,383	484,019	13,802	20,592	1,365,648
Loan Capital ..	..	61,851	10,942	117,421	..	3,908	194,122
Bank Overdraft ..	(a) 445,839	98,011	2,114	72,438	3,104	3,253	624,759
Accumulated Profits ..	..	15,992	3,512	866	..	2,135	..
Reserve Funds ..	} 365,726	123,077	8,318	153,861	2,120	7,064	683,002
Sundry Creditors ..	(b) ..	81,317	5,137	24,054	6,064	4,998	121,570
Other Liabilities ..	..	8,238	22	950	146	3,927	13,283
<b>Total Liabilities ..</b>	<b>1,455,030</b>	<b>562,873</b>	<b>59,428</b>	<b>853,609</b>	<b>25,567</b>	<b>45,877</b>	<b>3,002,384</b>
<b>Assets—</b>							
Land and Buildings ..	..	..	29,334	268,973	5,181	13,986	..
Machinery, Plant and other fixed Assets ..	} 557,628	214,661	2,971	63,233	1,622	1,690	} 1,159,279
Stocks ..	377,857	147,896	16,140	243,943	6,281	14,714	806,831
Sundry Debtors ..	345,116	155,237	4,971	170,064	7,436	7,467	690,291
Cash in hand and on deposit ..	23,327	32,017	3,711	15,227	2,864	7,258	84,404
Profit and Loss Account ..	..	4,277	..	14,573	745	417	20,012
Other Assets ..	151,102	8,785	2,301	77,596	1,438	345	241,567
<b>Total Assets ..</b>	<b>1,455,030</b>	<b>562,873</b>	<b>59,428</b>	<b>853,609</b>	<b>25,567</b>	<b>45,877</b>	<b>3,002,384</b>

## SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

<b>Liabilities—</b>							
Paid-up Capital ..	..	68,189	111,217	17,804	448,521	..	645,731
Loan Capital ..	..	12,187	..	451	168,929	..	181,567
Bank Overdraft ..	..	46,322	6,159	15,211	497,784	..	565,476
Accumulated Profits ..	..	38,519	13,529	..	22,800	..	74,848
Reserve Funds ..	..	53,625	52,116	7,159	250,489	..	363,389
Sundry Creditors ..	..	65,202	121,420	5,226	358,948	..	550,796
Other Liabilities ..	..	2,546	4,954	1,443	11,516	..	20,459
<b>Total Liabilities ..</b>	<b>..</b>	<b>286,590</b>	<b>309,395</b>	<b>47,294</b>	<b>1,758,987</b>	<b>..</b>	<b>2,402,266</b>
<b>Assets—</b>							
Land and Buildings ..	..	..	97,299	6,116	213,461	..	..
Machinery, Plant and other fixed Assets ..	} ..	152,055	84,215	8,672	171,471	..	} 733,289
Stocks ..	..	54,248	58,303	13,039	307,823	..	433,413
Sundry Debtors ..	..	49,868	57,232	18,140	826,819	..	952,059
Cash in hand and on deposit ..	..	1,363	3,495	133	11,521	..	16,512
Profit and Loss Account ..	..	6,724	..	879	66,957	..	74,560
Other Assets ..	..	22,332	8,851	315	160,935	..	192,433
<b>Total Assets ..</b>	<b>..</b>	<b>286,590</b>	<b>309,395</b>	<b>47,294</b>	<b>1,758,987</b>	<b>..</b>	<b>2,402,266</b>

(a) Including Sundry Creditors. (b) Included in Bank Overdraft, &c. (c) Particulars relate to Societies registered under Co-operation Acts, 1923-1929.

## D. INSURANCE.

## § 1. General.

Although insurance business is conducted under State laws where such laws are in existence, or otherwise under various Companies Acts or Special Acts, Section 51 of the Commonwealth Constitution Act confers the necessary powers on the Commonwealth Parliament to legislate in regard to "insurance other than State insurance; also State insurance extending beyond the limits of the State concerned". In 1905, the



Commonwealth Parliament passed "An Act relating to Assurance on the Lives of Children by Life Assurance Companies or Societies", but no further legislation relating to life assurance was enacted until 1932, when Act No. 4, "An Act relating to Insurance" was passed. The principal features of this latter Act are given hereunder.

Companies, persons or associations of persons carrying on insurance business are required to deposit money or approved securities with the Commonwealth Treasurer, to the extent specified in the schedule hereunder. In the case of an existing Company, the specified deposit must be made within six months after the commencement of the Act, and a new company must lodge its deposit before conducting business. The penalty for failing to lodge the prescribed deposit is £2,000, and, in addition, £500 per day for each day on which business is unlawfully carried on.

#### SCHEDULE OF DEPOSITS.

Class of Company.	Life Assurance Business.	Other Insurance Business.
Existing companies (Australian and foreign)	£1,000 for every £5,000 of net liability up to a maximum deposit of £50,000	£1,000, periodically as prescribed, for each £5,000 of annual premium income. Maximum deposit £40,000
New companies—Australia	£5,000 per annum until maximum of £50,000 is reached. For mutual companies, after the initial deposit of £5,000, £1,000 per annum until deposit reaches a maximum of £50,000	Initial deposit, £5,000. £1,000, periodically as prescribed for every £5,000 by which the premium income exceeds £25,000 until deposit reaches a maximum of £40,000
Overseas—		
British .. ..	£50,000 .. ..	£50,000
Foreign .. ..	£60,000 .. ..	£60,000

Deposits in respect of existing Life Assurance Companies are based on their net liability and those in respect of other insurance business on the annual premium income.

Initial deposits must be accompanied by prescribed certified returns showing the extent of the business, and prescribed annual returns must also be submitted to the Treasurer by depositors. The penalty for false return is imprisonment for two years.

Money deposited is to be invested by the Treasurer in prescribed securities at the discretion of the depositor, and all interest accruing on deposits or securities is to be paid to depositors. Deposits are to remain as security against liability to policy-holders, and are to be available to satisfy judgments obtained in respect of policies.

If the value of money and approved securities deposited has depreciated below the value required by the Act, the Treasurer may require the depositor to lodge additional deposits to bring the total to the prescribed amount.

After this Act comes into force, no State laws governing insurance deposits shall operate. Deposits held by States on 1st February, 1932, may remain with the States until the Treasury requires their return to depositors who must immediately make deposits with the Treasurer to the prescribed extent.

The following are not regarded as insurance businesses under this Act :—

- Staff superannuation schemes ;
- Schemes of religious organizations solely for insurance of their property ; and
- Friendly Society, Union and Association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned.

## § 2. Life Assurance.

1. **General.**—Returns for the year 1931 have been collected from life assurance societies, with results which are in the main satisfactory. The figures in the succeeding paragraphs refer to Australian business only, except where otherwise indicated.

2. **Companies Transacting Business.**—(i) *General.* The number of companies transacting life assurance business in Australia during 1931 was 28, three of which were overseas companies. Of the twenty-five Australian companies, six are purely mutual, and eighteen are proprietary companies. One office is a State government institution.

(ii) *Ordinary and Industrial Business.* Of the societies enumerated in the preceding paragraph, fifteen transacted both ordinary and industrial business. Ordinary and industrial business have, where possible, been kept separate, and figures relating to companies whose head offices are outside Australia have been restricted to the Australian business.

3. **Australian Business, 1931.**—(i) *Ordinary.* The subjoined table shows the ordinary life business in force for each of the last five years. While the total sum assured has increased by about 23 million pounds (about 9 per cent.), the average per policy has increased from £303 to £327. The amount assured in 1931 represents an average of approximately £44 per head of population.

### ORDINARY LIFE ASSURANCE.—AUSTRALIAN BUSINESS.

Year.		Policies in Force.	Amount.	Average per Policy.	Annual Premium Income.
		No.	£	£	£
1927	..	866,710	262,276,366	303	8,532,723
1928	..	889,521	276,391,009	311	9,154,560
1929	..	908,807	290,313,414	319	9,513,249
1930	..	901,645	294,267,070	326	9,780,876
1931	..	871,089	285,164,656	327	9,424,411

(ii) *Industrial.* Information in regard to the industrial business of the sixteen societies transacting it is given in the following table.

The amount assured has increased by over 6½ million pounds (11 per cent.) in the period under review. The average amount per policy in 1931 was £44, compared with an average of £41 in 1927.

### INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN BUSINESS.

Year.		Policies in Force.	Amount.	Average per Policy.	Annual Premium Income.
		No.	£	£	£
1927	..	1,481,044	60,732,865	41	3,524,919
1928	..	1,564,081	65,966,754	42	3,884,416
1929	..	1,640,989	71,053,864	43	4,170,989
1930	..	1,598,877	69,977,444	44	4,259,755
1931	..	1,549,877	67,440,828	44	4,081,498

4. **Receipts and Expenditure.**—(i) *Ordinary Business.* The following table shows the aggregate Australian receipts for the last four years of all the societies doing business in Australia. In the latter year premiums—new and renewal—amounted to nearly 59 per cent., and interest, dividends, and rent to 38 per cent. of the Australian receipts.

## ORDINARY LIFE ASSURANCE.—AUSTRALIAN RECEIPTS.

Heading.	Amount.			
	1928.	1929.	1930.	1931.
	£	£	£	£
Premiums—New .. ..	1,133,529	1,067,895	1,021,764	815,249
Renewal .. ..	8,021,031	8,445,354	8,759,112	8,609,162
Consideration for annuities .. ..	83,941	92,841	69,969	75,569
Interest, dividends, and rents .. ..	6,070,259	6,469,996	6,808,125	6,102,804
Other receipts .. ..	686,337	341,546	371,218	365,225
<b>Total Receipts .. ..</b>	<b>15,995,097</b>	<b>16,417,632</b>	<b>17,030,188</b>	<b>15,968,009</b>

In 1931 expenditure amounted to £12,860,641 of which claims accounted for almost 47 per cent., surrenders nearly 21 per cent., expenses of management 8 per cent., and licence fees and taxes 7 per cent.

## ORDINARY LIFE ASSURANCE.—AUSTRALIAN EXPENDITURE.

Heading.	Amount.			
	1928.	1929.	1930.	1931.
	£	£	£	£
Claims .. ..	4,990,017	5,389,720	5,356,945	5,733,128
Surrenders .. ..	1,049,259	1,164,504	1,761,192	2,554,249
Annuities .. ..	101,752	116,015	103,451	103,560
Commission .. ..	752,344	769,252	681,424	572,887
Expenses of management .. ..	963,876	928,696	932,179	925,439
Licence fees and taxes .. ..	186,952	425,202	509,337	906,134
Shareholders' dividends .. ..	78,263	102,367	92,953	73,289
Cash bonuses paid to shareholders .. ..	483,033	579,490	758,991	878,310
All other expenditure .. ..	350,866	395,726	1,056,318	1,113,645
<b>Total Expenditure .. ..</b>	<b>8,956,362</b>	<b>9,870,972</b>	<b>11,252,790</b>	<b>12,860,641</b>

The excess of receipts over expenditure during the past four years was as follows:—1928, £7,038,735; 1929, £6,546,660; 1930, £5,777,398; and 1931, £3,107,368.

(ii) *Industrial Business.* The aggregate Australian receipts for the years 1928 to 1931 of societies transacting industrial business was as follows:—

## INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN RECEIPTS.

Heading.	Amount.			
	1928.	1929.	1930.	1931.
	£	£	£	£
Premiums—New and renewal .. ..	3,884,416	4,170,989	4,259,755	4,081,498
Consideration for annuities .. ..	13	14	..	..
Interest, dividends, and rents .. ..	981,444	1,105,141	1,205,959	1,239,068
Other receipts .. ..	17,328	18,732	17,477	16,220
<b>Total Receipts .. ..</b>	<b>4,883,201</b>	<b>5,294,876</b>	<b>5,483,191</b>	<b>5,336,786</b>

Expenditure during 1931 totalled £3,967,097. Claims amounted to almost 40 per cent., commission to slightly over 20 per cent., and expenses of management to over 12 per cent.

## INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN EXPENDITURE.

Heading.	Amount.			
	1928.	1929.	1930.	1931.
	£	£	£	£
Claims .. .. .	1,278,853	1,408,735	1,586,080	1,584,875
Surrenders .. .. .	150,508	194,202	317,384	420,115
Annuities .. .. .	254	195	195	285
Commission .. .. .	944,909	988,565	895,421	812,153
Expenses of management	464,057	508,883	520,102	492,595
Licence fees and taxes ..	33,549	87,186	106,229	189,408
Shareholders' dividends ..	70,034	68,980	66,705	64,596
All other expenditure .. ..	87,040	129,597	238,508	403,070
<b>Total Expenditure ..</b>	<b>3,029,204</b>	<b>3,386,343</b>	<b>3,730,624</b>	<b>3,967,097</b>

The excess of receipts over expenditure for each of the past four years was :—1928, £1,853,997 ; 1929, £1,908,533 ; 1930, £1,752,567 ; and 1931, £1,369,689.

5. *Liabilities and Assets, 1931.*—(i) *General.* The liabilities of the Australian societies consist mainly of their assurance funds ; as already mentioned, however, some of the societies are proprietary, and in these cases there is a further liability on account of the shareholders' capital. The assets consist chiefly of loans on mortgage and policies, government, municipal, and similar securities, shares, freehold property, etc. Loans on personal security are granted by very few of the Australian societies.

(ii) *Ordinary and Industrial Business.* For various reasons several societies do not attempt the division of liabilities and assets between the industrial and ordinary branches, and a few societies cannot state the amount of liabilities in Australia. In the following table, therefore, the figure relate to both ordinary and industrial branches combined.

## ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN LIABILITIES.

Heading.	Amount.			
	1928.	1929.	1930.	1931.
	£	£	£	£
Shareholders' capital, paid up ..	1,965,386	1,729,408	1,706,160	1,445,045
Assurance and annuity funds ..	85,295,617	91,938,296	90,551,713	90,325,856
Other funds .. .. .	8,330,742	9,532,291	11,098,669	13,022,705
Claims admitted but not paid ..	891,849	920,549	884,365	941,450
All other liabilities .. .. .	2,619,086	2,521,056	2,684,814	2,346,360
<b>Total Australian Liabilities (a)</b>	<b>99,102,680</b>	<b>106,641,600</b>	<b>106,925,721</b>	<b>108,081,416</b>

(a) Excluding Mutual Life and Citizens, National Mutual, Western Australian, Liverpool and London and Globe, and Mutual Life of United States of America.

Assets for the years specified are set out in detail in the table hereunder :—

**ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN ASSETS.**

Heading.	Amount.			
	1928.	1929.	1930.	1931.
	£	£	£	£
Government and municipal securities .. .. .	65,206,148	70,578,790	72,777,464	74,317,848
Mortgages .. .. .	32,378,820	34,632,357	37,852,782	37,354,976
Loans on companies' policies .. .. .	12,644,271	13,864,243	16,795,179	19,122,781
Landed and house property .. .. .	4,944,345	5,327,568	5,091,395	5,954,157
Life interests and reversions .. .. .	143,710	151,724	175,093	205,560
Other investments .. .. .	3,089,755	3,195,550	3,404,720	3,127,424
Outstanding premiums .. .. .	1,001,740	1,052,187	1,170,984	1,122,747
Outstanding interest, dividends, and rents .. .. .	1,303,410	1,425,585	1,525,703	1,582,472
Cash .. .. .	2,724,952	2,015,003	2,169,606	3,135,283
Establishment and organization accounts .. .. .	1,320,700	1,259,921	1,084,240	1,082,056
All other assets .. .. .	2,286,136	1,096,050	1,308,602	1,289,439
<b>Total Australian Assets(a)</b>	<b>127,043,987</b>	<b>134,598,978</b>	<b>143,955,768</b>	<b>148,294,743</b>

(a) Excludes Australian Assets of Liverpool and London and Globe Coy. Assets of other companies referred to in footnote to the preceding table are included herein.

(iii) *Total Assets.* It has been thought desirable to restrict the figures relating to life assurance to business in Australia. Several of the companies whose head offices are in Australia transact, however, a large amount of business elsewhere, viz., in New Zealand, in South Africa, and in the United Kingdom, while in the case of the foreign companies, the Australian business is insignificant compared with that done elsewhere. Particulars as to this foreign business of both Australian and foreign companies will be found in "Finance Bulletin No. 23."

The total assets of all life companies operating in Australia amounted to £419,800,036 in 1931, of which government and municipal securities (£115,842,198), and mortgages (£105,069,334), represented more than 50 per cent.

6. **New Policies issued in Australia, 1931.**—(i) *Ordinary Business.* During 1931 63,165 new policies were issued for £22,526,565. The average amount per policy was over £356, which compares with an average of £327 per policy for all policies which were in existence at the end of 1931.

(ii) *Industrial Business.* New policies to the number of 245,898 were issued during the year, for a total of £11,368,717. The average per policy was over £46, or £2 more than the average for all industrial policies which were current at the end of 1931.

7. **Policies Discontinued in Australia.**—(i) *Ordinary Business.* The volume of business which from various causes becomes void in each year is always large. The number and amount of policies, including annuities, discontinued in the last three years, and the reasons for discontinuance are given in the following table :—

## ORDINARY LIFE ASSURANCE.—POLICIES DISCONTINUED IN AUSTRALIA.(a)

Mode.	1929.		1930.		1931.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	17,280	3,933,620	17,151	3,838,242	18,266	4,159,657
Surrender ..	15,823	4,409,649	19,928	6,192,092	30,259	9,411,471
Forfeiture ..	32,538	11,461,656	33,566	13,789,977	38,061	15,807,637
Total ..	65,641	19,804,925	70,645	23,820,311	86,586	29,378,765

(a) Includes Annuities.

(ii) *Industrial Business.* The number of policies discontinued in this branch each year is also very large. Of the total amount of discontinuance during 1931 only about 10 per cent. was due to death or maturity, while roughly 80 per cent. was due to forfeiture.

## INDUSTRIAL LIFE ASSURANCE.—POLICIES DISCONTINUED IN AUSTRALIA.(a)

Mode.	1929.		1930.		1931.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	56,374	1,388,032	61,159	1,555,890	54,274	1,482,544
Surrender ..	11,111	553,886	16,915	830,367	27,783	1,316,062
Forfeiture ..	183,605	9,680,842	231,991	12,253,600	215,506	11,215,543
Total ..	251,090	11,622,760	310,065	14,639,857	297,563	14,014,149

(a) Including Annuities.

8. *Conspectus of Australian Life Assurance Legislation.*—A conspectus of Australian Life Assurance Legislation as then existing appeared in Official Year Book No. 18, pp. 1041 to 1059.

## § 3. Fire, Marine, and General Insurance.

1. *Australasian Companies\*.*—(i) *General.* Returns in some detail are available showing the revenue and expenditure, assets and liabilities, and investments of 38 insurance companies having their head offices either in Australia, New Zealand, or Fiji. The business transacted by these companies represents from 55 to 60 per cent. of the aggregate Australian business, some particulars of which are given in para. 2 following.

(ii) *Revenue and Expenditure.* The most important items of revenue and expenditure are given below. The trade surplus in 1931-32 was £105,632, or 1.77 per cent. of premium income.

\* The statistical information in this paragraph has been extracted from the Australasian Insurance and Banking Record.

**FIRE, MARINE, AND GENERAL INSURANCE COMPANIES.—SUMMARY OF  
REVENUE AND EXPENDITURE.**

Heading.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Premiums, less re-insurances ..	8,412,080	8,321,762	8,304,632	6,975,834	5,964,532
Losses .. .. .	5,016,717	4,993,394	4,829,345	4,293,384	3,560,972
Expenses, commission, and taxes	2,833,854	2,812,676	2,795,130	2,549,181	2,297,928
Trade surplus .. .. .	561,509	515,692	680,157	133,269	105,632
Interest, rent, etc. .. .. .	783,969	779,314	829,410	787,978	745,519
Total surplus .. .. .	1,345,478	1,295,006	1,509,567	921,247	851,151
Dividends and Bonuses paid ..	641,085	659,704	653,595	574,626	546,822
Ratio to premium income of—					
(a) Losses .. .. . per cent.	59.64	60.00	58.15	61.55	59.70
(b) Expenses, etc. .. .. . per cent.	33.69	33.80	33.66	36.54	38.53
(c) Trade surplus .. .. . per cent.	6.68	6.20	8.19	1.91	1.77

(iii) *Liabilities and Assets.* The liabilities and assets for the same period are set out in the following tables. Comparison of the results for 1931-32 with those for 1927-28 shows that paid-up capital decreased by 3 per cent, while reserves increased by 8 per cent. Government securities represent an increasing proportion of assets.

**FIRE, MARINE, AND GENERAL INSURANCE COMPANIES.**

Heading.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>PAID-UP CAPITAL, RESERVES, AND LIABILITIES.</b>					
	£	£	£	£	£
Paid-up capital .. .. .	6,400,284	6,423,425	6,541,033	6,479,866	6,235,241
Reserves and re-insurance funds (a) .. .. .	9,487,950	10,048,875	10,136,075	10,236,760	10,279,065
Undivided profits .. .. .	612,827	766,041	784,695	622,801	662,229
Losses unsettled .. .. .	988,700	935,219	974,016	933,350	851,417
Sundry creditors, etc. .. .. .	2,379,748	2,417,780	2,419,285	1,979,736	1,754,254
Dividends, etc., to pay .. .. .	387,887	405,109	376,091	354,279	339,803
Life assurance funds (b) .. .. .	1,706,108	2,008,769	2,331,665	2,603,598	2,805,673
<b>Total Liabilities .. .. .</b>	<b>21,963,504</b>	<b>23,005,218</b>	<b>23,562,860</b>	<b>23,210,390</b>	<b>22,927,682</b>

**INVESTMENTS AND OTHER ASSETS.**

	£	£	£	£	£
Loans on mortgage .. .. .	759,382	768,378	829,079	845,085	745,445
Government securities, etc.	12,668,290	13,331,925	13,932,258	14,464,207	14,470,341
Landed and other property	3,307,205	3,550,460	3,584,044	3,397,399	3,304,802
Fixed deposits, etc. .. .. .	1,828,566	1,850,771	2,194,546	1,667,753	1,808,276
Loans on life policies (b) .. .. .	84,871	104,175	136,899	182,574	223,222
Investments .. .. .	234,321	239,496	149,841	165,630	155,952
Cash and bills receivable .. .. .	757,970	769,923	670,078	603,896	703,721
Sundry debtors and other assets .. .. .	2,322,899	2,390,090	2,066,115	1,883,846	1,515,923
<b>Total Assets .. .. .</b>	<b>21,963,504</b>	<b>23,005,218</b>	<b>23,562,860</b>	<b>23,210,390</b>	<b>22,927,682</b>

(a) Including amount required as reserves against unexpired risks.

(b) Some of the companies transact Life Business.

(iv) *Marine Insurance.* The Act No. 11 of 1909, "An Act relating to Marine Insurance," passed by the Commonwealth Parliament, and assented to on the 11th November, 1909, altered the conditions under which marine policies had been issued under certain Imperial and State Acts.

2. *Aggregate Australian Business.*—(i) *States.* While the foregoing statements relate to those companies only whose head offices are located in Australasia or Fiji, the following particulars which are somewhat restricted in the range of information are in respect of all Companies operating in Australia.

The appended table shows for each State the aggregate premium income, less reinsurances and returns, and claims paid, less reinsurances, together with the proportions of losses on premiums for all classes of insurance other than life for the years 1930-31 and 1931-32. It should be mentioned that the figures for 1931-32 include for the first time the business transacted by Lloyds Brokers, and this fact should be borne in mind in making any comparisons between these figures and those for previous years.

**FIRE, MARINE, AND GENERAL INSURANCE—PREMIUMS AND LOSSES, STATES.**

State.	Premiums, less reinsurances and returns.		Losses, less reinsurances.		Proportion of Losses on Premiums.	
	1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.
	£	£	£	£	%	%
New South Wales ..	4,789,032	4,334,226	2,640,800	2,314,044	55.14	53.39
Victoria ..	3,240,266	3,069,444	1,587,632	1,335,781	49.00	43.52
Queensland ..	1,543,388	1,358,044	863,182	783,912	55.93	57.72
South Australia ..	786,942	793,906	298,770	230,482	37.97	29.03
Western Australia ..	965,892	846,498	485,620	327,445	50.28	39.68
Tasmania ..	285,497	269,338	206,919	100,894	72.48	37.46
All States ..	11,611,017	10,671,456	6,082,923	5,092,558	52.39	47.72

Heavy losses in the Fire departments of companies in Tasmania were responsible for the abnormal percentage of Losses to Premiums in 1930-31. On the other hand Fire department losses in Victoria have decreased from 62 per cent. in 1929-30 to 45 per cent. in 1930-31 and to 36 per cent. in 1931-32.

(ii) *Classes of Insurance.* The statement hereunder shows premiums and losses in respect of the principal classes of risks, with the proportions of losses on premiums for the years 1930-31 and 1931-32.

**FIRE, MARINE, AND GENERAL INSURANCE.—PREMIUMS AND LOSSES, PRINCIPAL CLASSES OF RISK.**

Class of Risk.	Premiums, less reinsurances and returns.		Losses, less reinsurances.		Proportion of Losses on Premiums.	
	1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.
	£	£	£	£	%	%
Fire ..	5,713,334	5,526,649	2,628,328	2,066,048	46.00	37.38
Workers' Compensation ..	2,142,873	1,697,176	1,554,697	1,312,047	72.55	77.31
Motor Vehicle ..	1,911,040	1,644,590	1,122,434	841,485	58.73	51.17
Marine ..	667,552	696,399	249,271	415,003	37.34	59.59
Personal Accident ..	349,936	300,695	158,019	142,818	45.16	47.49
All other ..	826,282	805,947	370,174	315,157	44.80	39.01
Total ..	11,611,017	10,671,456	6,082,923	5,092,558	52.39	47.72



During each of the above years, the volume of business measured by the amounts of premium income shows that fire insurances represented about 40 per cent. of the total, while the proportions of motor vehicle and workers' compensation insurances were approximately 16 and 26 per cent. respectively.

With a receding volume of business in 1931-32, it is safe to make the general inference that slightly less than half the premium income is paid out in satisfaction of claims, and slightly more than half is available for expenses and profits.

### E. FRIENDLY SOCIETIES.

1. **General.**—Friendly societies are an important factor in the social life of the community, as probably more than one-third of the total population of Australia comes either directly or indirectly under their influence. Their total membership exceeds 600,000, but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must, even when due allowance is made for young and unmarried members, be multiplied by about four to arrive at the total number of persons more or less connected with these societies. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules are conformable to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward annual returns as to their membership and their finances to the Registrar, and reports are published in most of the States dealing with the returns received.

2. **Number of Societies, Lodges, and Members.**—The number of different societies and lodges, the total number of benefit members at the end of the year, and their average number during the year are shown in the following table :—

FRIENDLY SOCIETIES.—SOCIETIES, LODGES, AND MEMBERS, 1931.

State.	Number of Registered Friendly Societies.	Number of Lodges.	Benefit Members at End of Year.	Average No. of Benefit Members during the Year.
New South Wales .. ..	(c) 32	(c) 2,532	242,344	247,215
Victoria .. ..	52	1,469	161,448	163,124
Queensland .. ..	58	(a) 603	67,740	68,139
South Australia .. ..	17	740	76,363	77,074
Western Australia .. ..	15	349	23,672	24,333
Tasmania .. ..	20	195	26,142	(b) 26,649
Total .. ..	..	5,888	597,709	606,534

(a) Excluding Juvenile Branches. (b) Estimated. (c) Exclusive of twenty miscellaneous societies consisting of Medical Institutes, Dispensaries, and Accident and Burial Societies.

The total number of registered Friendly Societies is not given for Australia, as many of the societies operate in all the States.

3. **Sickness and Death Returns.**—Sick pay is generally granted for a number of months at full rates, then for a period at half rates, and in some societies is finally reduced to quarter rates. The following table shows the total number of members who received sick pay during the year, the number of weeks for which they received pay in the

aggregate, and the average per member sick, and further the number of benefit members who died during the year, together with the proportion of deaths per thousand average members :—

## FRIENDLY SOCIETIES.—SICKNESS AND DEATH RETURNS, 1931.

State.	Number of Members who received Sick Pay.	Total Number of Weeks Sick Pay Granted.	Average Number of Weeks per Member Sick.	Benefit Members.	
				Deaths.	Proportion of deaths per 1,000 (Average).
New South Wales ..	45,355	(a)	(a)	1,985	8.00
Victoria .. ..	31,474	373,657	11.87	1,426	8.74
Queensland .. ..	11,281	119,172	10.56	578	8.48
South Australia ..	14,102	172,317	12.22	767	9.95
Western Australia ..	4,563	43,069	9.44	179	8.35
Tasmania .. ..	5,589	57,811	10.34	263	9.86
Total .. ..	112,634	(b) 766,026	(b) 11.43	5,198	8.57

(a) Not available.

(b) Exclusive of New South Wales.

4. Revenue and Expenditure.—(i) *Revenue.* The financial returns are not prepared in the same way in each State, but an attempt has been made in the subjoined table to group the revenue under the main headings :—

## FRIENDLY SOCIETIES.—REVENUE, 1931.

State.	Year ended—	Entrance Fees, Members' Contributions, and Levies.	Interest, Dividends, and Rents.	All other Revenue.	Total Revenue.
		£	£	£	£
New South Wales ..	30.6.31	765,113	210,164	35,421	1,010,698
Victoria .. ..	"	545,286	282,371	51,668	879,325
Queensland .. ..	"	232,289	90,701	(a)	322,990
South Australia ..	31.12.30	242,061	127,307	33,062	402,430
Western Australia ..	30.6.31	82,066	28,304	25,147	135,517
Tasmania .. ..	31.12.31	88,090	22,121	13,051	123,262
Total .. ..	"	1,954,905	760,968	158,349	2,874,22

(a) Included in interest, dividends, and rents.

(ii) *Expenditure.* The returns relating to expenditure are in greater detail than those for revenue. The figures show that the excess of revenue for the year was £422,661 for Australia, representing about 14s. od. per average benefit member.

## FRIENDLY SOCIETIES.—EXPENDITURE, 1931.

State.	Year ended—	Sick Pay.	Medical Attendance and Medicine.	Sums Paid at Death of Members and Members' Wives.	Adminis-tration.	All other Expendi-ture.	Total Expendi-ture.
		£	£	£	£	£	£
New South Wales ..	30.6.31	307,979	298,299	75,747	171,820	62,207	916,052
Victoria .. ..	"	228,650	227,045	35,591	120,986	96,232	708,504
Queensland .. ..	"	87,308	102,959	31,069	54,519	(a)	275,855
South Australia ..	31.12.30	101,824	101,257	34,878	54,421	30,046	322,426
Western Australia ..	30.6.31	29,137	30,053	10,144	23,745	21,487	114,566
Tasmania .. ..	31.12.31	34,596	29,752	20,058	19,353	10,399	114,158
Total .. ..	"	789,494	789,365	207,487	444,844	220,371	2,451,561

(a) Included in administration.

It appears from the above figures that sick pay averaged about 26s. per week per average benefit member, but, as the returns include pay at half and quarter rates, and as the proportion of these to full rates is not stated, the average given is somewhat indefinite. Medical attendance and medicine also came to about 26s. per average benefit member.

5. Funds.—The two foregoing tables show that the surplus of revenue over expenditure in all States amounted to £422,661 for the year, and a small surplus must, of course, result annually in every society which levies adequate contributions to enable it to meet all possible claims. These accumulations of profits are generally invested, and at the end of the year 1931 the total funds of friendly societies amounted to £14,377,285, (£24 is. per benefit member), of which approximately 14 millions was invested, principally on mortgage, loans on members' homes, real estate, and in Government and Municipal securities.

## F. PROBATES.

1. Probates and Letters of Administration.—The value of the estates left by deceased persons gives some idea of the distribution of property among the general population. There were in 1931 approximately 46,979 deaths of adult persons, while the number of probates and letters of administration granted during the same period was 18,000. It would therefore appear that about 40 per cent. of the adults who died during the year were possessed of sufficient property to necessitate the taking out of probate. The details for each State are shown in the table hereunder :—

### PROBATES AND LETTERS OF ADMINISTRATION, 1931.

State.	Year ended—	Number of Estates.			Net Values of Estates.		
		Probates.	Letters of Administration.	Total.	Probates.	Letters of Administration.	Total.
					£	£	£
New South Wales ..	30.6.31	4,574	2,195	6,769	b19,049,172	b2,201,860	21,251,032
Victoria ..	31.12.31	4,881	1,465	6,346	14,733,713	(a)	14,733,713
Queensland ..	30.6.31	1,007	195	1,202	b4,997,168	b 483,760	5,480,928
South Australia ..	31.12.31	1,636	280	1,916	3,724,987	297,549	4,022,536
Western Australia ..	"	(c) 856	307	1,163	(c)1,503,671	138,573	1,642,244
Tasmania ..	"	(d) 518	(d) 86	(d) 604	(d)1,276,966	(d) 51,773	d1,328,739
Total ..	..	13,472	4,528	18,000	45,285,677	3,173,515	48,459,192

(a) Included with Probates. (b) Gross value. (c) Applications lodged. (d) Applications dealt with.

2. Intestate Estates.—The number of intestate estates placed under the control of the Curator during the year, and the amount of unclaimed money paid into Consolidated Revenue in each State during the year 1931, are given hereunder :—

### INTESTATE ESTATES, 1931.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Intestate estates placed under control of Curator during 1931—							
Number .. ..	(a)	(b)	1,210	(d) 134	319	(c) 82	1,745
Value .. .. £	(a)	(b)	611,223	(d) 88,646	(d) 47,189	(c) 19,328	766,386
Unclaimed money paid into Consolidated Revenue By Curator during 1931 £	(b)	22,516	11,706	2,473	2,711	(b)	39,406

(a) Included with Probates. (b) Not available. (c) Estates wound up by Public Trustee. (d) Included with Letters of Administration.

## G. THE WEALTH OF AUSTRALIA, 1929.

[NOTE.—These estimates have been derived from the methods devised and applied by the previous Commonwealth Statistician—C. H. Wickens, I.S.O., etc.]

### § 1. Introductory.

1. **General.**—Of the various methods of estimating the wealth of a community the inventory method on which the present estimate is based, is the one which affords the best means of arriving at a satisfactory valuation of the elements in the total. In this respect it possesses advantages over the succession (probate) method or the census method. The possibility of effectively using the inventory method, however, is dependent on the existence of valuations made for purposes other than the estimation of total wealth, e.g., Local Government assessments, values of imports, values of plant and machinery engaged in various industries, etc. Further, in connexion with some of the items which must be taken into consideration direct valuation is impossible, and estimates based on indirect data and general knowledge must be employed. This applies particularly in the case of estimates of the value of clothing based on population, and on an assumed value per head, or valuations of furniture based on the number of houses of various sizes or of various rental values. It is clear, therefore, that, in common with all other estimates of wealth, the inventory method is encompassed in uncertainty, but it is probably not worse than other methods in this respect. On the other hand, it has the advantages (i) that it enables a fair idea to be obtained of the degree of uncertainty involved in each item (ii) that, unlike a census, it costs little to compile, and can consequently be prepared at relatively short intervals (iii) that it relates to a fairly definite point of time, whereas a "succession" estimate, if it is to be at all reliable, at its best can give only the average for an extensive period.

2. **Basis of Estimate.**—In the accompanying estimate, provision has been made for the inclusion of all material private wealth existing in Australia, whether owned by persons domiciled in Australia or by persons resident abroad.

In all cases, the values given represent material wealth actually existing in Australia at the date of review, viz., 30th June, 1929, and take no account of the domicile of the owner, nor of such evidences of proprietary interest as mortgage rights, debentures, bonds, policies, etc.

3. **Private Wealth.**—In broad outline the classes of private wealth contributing to the aggregate may be classed as follow:—(i) Land and improvements; (ii) Live stock; (iii) Agricultural, dairying and pastoral implements and machinery; (iv) Manufacturing plant and machinery; (v) Mining properties (including plant and machinery); (vi) Coin and bullion; (vii) Private railways and tramways; (viii) Shipping; (ix) Agricultural and pastoral products; (x) Locally manufactured products; (xi) Mining products (other than gold); (xii) Imported merchandise; (xiii) Clothing and personal adornments; (xiv) Furniture and fittings, books, etc.; (xv) Motor vehicles; (xvi) Aircraft; and (xvii) Wireless stations.

### § 2. Land and Improvements.

1. **Nature of Estimate.**—The estimate in respect of this item is based on the municipal valuations of the several States, and represents about two-thirds of the total estimated wealth. The form in which this information would be most serviceable is that of improved capital value, but, unfortunately, particulars of this nature are available for the whole State in the cases of Victoria, Tasmania and the incorporated area of South Australia only. Similar information in the cases of New South Wales and Western Australia is furnished for "municipalities" only, the assessments for "shires" in New South Wales and for the majority of the "road districts" in Western Australia being upon an unimproved basis. In Queensland, all the assessments are based upon unimproved values, while in a few of the Western Australian road districts the figures given relate to "annual values". It is thus necessary in several cases to apply certain factors for the purpose of converting "unimproved" and "annual values" into the corresponding "improved capital values".

2. **New South Wales.**—The valuation of the municipalities of New South Wales for the year ended 31st December, 1929, furnished the following results :—

**NEW SOUTH WALES.—VALUATION OF MUNICIPALITIES FOR YEAR ENDED 31st DECEMBER, 1929.**

Municipalities.	Improved Capital Value.	Unimproved Capital Value.	Assessed Annual Value.	Percentage of Unimproved on Improved Capital Value.	Percentage of Assessed Annual Value on Improved Capital Value.
	£	£	£	%	%
City of Sydney ..	193,988,920	60,983,094	8,343,732	31.44	4.30
Metropolitan Municipalities ..	309,864,115	110,156,685	23,676,236	35.55	7.64
Country Municipalities	123,653,442	40,214,557	9,690,295	32.52	7.84
<b>Total</b> ..	<b>627,506,477</b>	<b>211,354,336</b>	<b>41,710,263</b>	<b>33.68</b>	<b>6.65</b>

In the New South Wales Statistical Register the following definitions of the three classes of valuation are given :—

“The *Unimproved Capital Value* is the amount which the fee-simple estate in such land is worth under such reasonable conditions as a bona fide seller would require, assuming the actual improvements had not been made.”

“The *Improved Capital Value* is the amount which the fee-simple estate of the land is worth, with all improvements and buildings thereon.”

“The *Assessed Annual Value* is nine-tenths of the fair average rental of land with improvements thereon.”

The total area embraced by these municipalities is 2,508 square miles, or less than 1 per cent. of the total area of the State, while the population contained therein represented 72 per cent. of the total population of the State.

With the exception of a portion of the sparsely populated Western Land Division the remainder of the State is divided into shires, which cover a total area of 181,583 square miles, or 59 per cent. of the whole area of the State, the population of this portion representing about 28 per cent. of the total for the State. The unincorporated portion covers an area of 125,341 square miles, or 40 per cent. of the area of the State. Its population, however, is little more than one-half of 1 per cent. of the total population of New South Wales.

The unimproved capital value of shires in New South Wales in 1929, is given as £166,657,924. Improved capital values which are available for sixteen shires aggregate £57,128,888, the unimproved values for the same shires totalling £24,271,777, or 42.49 per cent. of the improved value. In these cases, assessed annual values also were given, aggregating £3,400,919, or 5.95 per cent. of the improved value. On the assumption that the sixteen shires, quoted above as giving a percentage of 42.49 for the ratio of unimproved to improved value, may be taken as a fair sample in this respect of the shires of New South Wales, the multiplier for converting the aggregate unimproved value for shires into the corresponding improved value will be  $100 \div 42.49$ . Applying this factor, the improved capital value for shires works out at £392,228,580. The ratio of unimproved to improved capital value obtained at the War Census of 1915 for owners domiciled in New South Wales was 44.91 per cent.

In the case of the unincorporated portion of the Western Land Division, valuation data are not available, and an estimate has been made on the basis of the population of the unincorporated area taken in conjunction with the average unimproved value per head disclosed by the contiguous shires. These are the shires of Boomi, Walgett, Marthaguy, Bogan, Lachlan, Carrathool, Waradgery, and Wakool, which, in 1929 had

an aggregate population of 22,840 and an aggregate unimproved valuation of £15,911,780 or £697 per head. As the population of the unincorporated area of the Western Division in 1929 was about 14,700 the corresponding unimproved value on this basis, would, be £10,245,900. Particulars in respect of the ratio of "unimproved" to "improved values" are not available for this part of the State separately, but as it would be relatively high it has been taken at 60 per cent., giving an estimated improved value for the unincorporated area of £17,076,500.

Combining these results, the total for the State works out as follows :—

**ESTIMATED IMPROVED CAPITAL VALUE, NEW SOUTH WALES, 1929.**

Municipalities.	Shires.	Unincorporated Area.	Total.
£ 627,506,000	£ 392,229,000	£ 17,077,000	£ 1,036,812,000

This total represents an average of £421 per head of the population of the State at 30th June, 1929.

On the basis of the statistics and estimates here employed, the unimproved value of land for the whole of New South Wales at 30th June, 1929, represented 37 per cent. of the improved capital value.

3. **Victoria.**—In the case of Victoria the particulars available relate to improved capital values, and to annual values also for all local government areas. The figures for 1928–29 are as follow :—

**VICTORIA—LOCAL GOVERNMENT VALUATION FOR YEAR 1928–29.**

Local Government Districts.	Improved Capital Value.	Annual Value.	Percentage of Annual Value on Improved Capital Value.
Cities, Towns and Boroughs ..	£ 385,884,089	£ 21,493,990	% 5.57
Shires .. .. .	294,765,524	14,792,565	5.02
Total .. .. .	680,649,613	36,286,555	5.33

With the exception of French Island and Sandstone Island in Western Port Bay, the whole of Victoria is under local government. The total given above (in round numbers £680,650,000) may, consequently, be taken as fairly representing the total value of real property and improvements at 30th June, 1929. This amount gives an average value of £385 per head of the population of the State at that date.

4. **Queensland.**—The municipal valuations for Queensland relate solely to unimproved capital values, and are separately available for the year 1929 for the eleven cities, seventeen towns and 124 shires which comprise the whole area of the State, with the exception of Stradbroke Island and other Islands in Moreton Bay.

The particulars are as follow :—

**UNIMPROVED VALUES, QUEENSLAND, 1929.**

Cities.	Towns.	Shires.	Total.
£ 29,373,009	£ 2,007,273	£ 48,643,433	£ 80,023,715

In the absence of any valuation data for Queensland indicating the relation between "unimproved" and "improved" values, use has been made of the ratio for that State obtained from a comparison of the War Census data. The ratio so obtained for owners of freehold property who were domiciled in Queensland was approximately 48 per cent. Improved and unimproved capital values are available for 1929 for New South Wales and Tasmania. Between the date of the War Census and 1929 the ratio of unimproved to improved value in New South Wales decreased from 44.91 per cent. to 37.45 per cent. and in Tasmania from 50.26 per cent. to 45.27 per cent. The decrease in the unimproved ratio in Queensland would be not less than in Tasmania, which would indicate for Queensland a ratio of about 43 per cent. Applying this percentage to the total unimproved value of £80,023,715 gives the improved capital value for Queensland as £186,102,000, an average of £201 per head of the population of the State at 30th June, 1929.

5. South Australia.—In South Australia the improved capital values and the annual values of all rateable property for the year 1929 are given separately for the several corporations and district councils. The details are as follow :—

**SOUTH AUSTRALIA—LOCAL GOVERNMENT VALUATIONS, 1929.**

Local Government Districts.	Improved Capital Value.	Annual Value.	Percentage of Annual Value on Improved Capital Value.
	£	£	%
Metropolitan—			
Municipal Corporations .. ..	67,221,116	3,386,708	5.04
District Councils .. ..	37,060,980	1,863,049	5.03
Country—			
Municipal Corporations .. ..	11,837,830	626,459	5.29
District Councils .. ..	73,004,981	3,810,652	5.22
<b>Total .. ..</b>	<b>189,124,907</b>	<b>9,686,868</b>	<b>5.12</b>

Of the several Australian States, South Australia has by far the largest unincorporated area. Thus, while corporations account for 102 square miles, and district councils for 52,318 square miles, the unincorporated area amounts to no less than 327,650 square miles, or 86 per cent. of the whole area of the State. This area is, however, very sparsely populated, and much of it is entirely unoccupied. In 1929 the estimated population of corporations and District Councils of South Australia was 567,786 persons and the population of the State at 30th June, 1929, was 579,415 persons. Allowing for persons aboard ships in South Australian waters the population of the unincorporated portion of the State may be taken as approximately 8,000 persons, or about 1.4 per cent. of the total for the State. In the area under country district councils for 1929 the average improved capital value of rateable property per head of population was approximately £383. Assuming this average to be applicable to the unincorporated area, and taking the population of that area at 8,000 for 1929, the estimated improved capital value for this portion of the State may be set down at £3,064,000.

The total for South Australia may thus be given as follows :—

**IMPROVED CAPITAL VALUE, SOUTH AUSTRALIA, 1929.**

Municipal Corporations.	District Councils.	Unincorporated Area.	Total.
£	£	£	£
79,059,000	110,066,000	3,064,000	192,189,000

This total gives an average of £332 per head of the population of the State at 30th June, 1929.

6. **Western Australia.**—In this State the municipal valuations are assessed for what are termed “capital value, including improvements,” and “Net Annual Value.” The totals for the year ended 31st October, 1929, were as follow :—

**WESTERN AUSTRALIAN—MUNICIPAL VALUATIONS, 1929.**

Districts.	Capital Value including Improvements.	Net Annual Value.	Percentage of Net Annual Value on Improved Capital Value.
	£	£	%
Metropolitan Municipalities ..	36,801,565	2,047,275	5.56
Extra-Metropolitan ..	5,748,536	409,712	7.13
<b>Total Municipalities ..</b>	<b>42,550,101</b>	<b>2,456,987</b>	<b>5.77</b>

In Road Districts, which correspond approximately to shires in some other States, rates are levied in part on “annual values,” but mainly on “unimproved values,” both bases being used in most districts. The “annual values” recorded for Road Districts for the year ended 30th June, 1929, were £322,044, while the “unimproved values” for the same year totalled £24,573,070. As indicated in the preceding table, the ratio of “net annual value” to “improved capital value” works out at 7.13 per cent. for extra-metropolitan municipalities in Western Australia, but this ratio is too high in the case of road districts. In New South Wales the ratio for country municipalities was 7.84 per cent., while that ascertained for sixteen shires for which the information was available was 5.95 per cent., or about one-fourth less. Assuming the same relation to hold between the extra-metropolitan municipalities and the road districts in Western Australia, the appropriate percentage would be three-fourths of 7.13 or 5.34. It was decided to take 6 per cent. as reasonable. At the War Census of 1915, the ratio of “unimproved” to “improved” capital value in respect of property owners domiciled in Western Australia was 40.55. As this figure, however, was based on a combination of town and country properties, it is probably too low for use in connexion with country properties only. The factor to be applied in converting the “unimproved values” quoted above into “improved values” has, therefore, been based upon a ratio of 45 per cent. As a result of these computations the “improved capital value” for road districts has been estimated at £59,974,000. Combining these results, the total for Western Australia may be stated as follows, the whole of the State being incorporated :—

**IMPROVED CAPITAL VALUE, WESTERN AUSTRALIA, 1929.**

Municipalities.	Road Districts.	Total.
£	£	£
42,550,000	59,974,000	102,524,000

This total represents an average of £249 per head of the population of the State at 30th June, 1929.



7. **Tasmania.**—The municipal valuations in Tasmania relate to “annual values” only, but State Government valuations show total capital and unimproved values as follow :—

**TASMANIA—GOVERNMENT VALUATIONS OF PROPERTY, 1929.**

Total Capital Value.	Unimproved Value.	Percentage of Unimproved Value on Total Capital Value.
£ 51,315,303	£ 23,230,723	% 45.27

The total capital value is equal to £241 per head of the population at 30th June, 1929.

8. **Territories.**—Owing to the exceptional conditions therein, data relative to local government corresponding to that quoted above in respect of the several States are not available for the Northern and the Federal Territories. The omission of particulars for these areas from the estimate for Australia would not seriously affect the total, but for the sake of completeness it appears desirable to include them. In previous estimates, capital values were computed on a population basis. In 1925 the aggregate value for the Northern Territory was taken as £640,000, and for the Federal Capital Territory as £845,000, and as any variation in the intervening years has probably been unimportant, the same values have been used on this occasion. The average values per head of population at 30th June, 1929, disclosed above for the several States are as follow :— New South Wales, £421; Victoria, £385; Queensland, £201; South Australia, £332; Western Australia, £249; and Tasmania, £241.

9. **Australia.**—Combining the results obtained in the foregoing sub-sections the results for Australia may be stated in thousands of pounds as follow :—

**IMPROVED CAPITAL VALUE, AUSTRALIA, 1929.**

N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.	Australia.
£1,000 1,036,812	£1,000 680,650	£1,000 186,102	£1,000 192,189	£1,000 102,524	£1,000 51,315	£1,000 640	£1,000 845	£1,000 2,251,077

For Australia as a whole the average value per head of the population at 30th June, 1929, was £353 4s. 2d.

### § 3. Live-Stock.

1. **Numbers of Principal Classes.**—Particulars concerning the value of live-stock in the several States are not directly available, but the numbers of each of the principal classes and of some of the minor classes are collected annually in each State and Territory. The dates to which these records relate are not uniform, but in each case the figures used for the present purpose refer to a point of time between 31st December, 1928, and 30th June, 1929. The figures taken for the principal classes of stock are as follow :—

**NUMBERS OF PRINCIPAL CLASSES OF AUSTRALIAN LIVE STOCK, 1928-29.**

Kind of Stock.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.	Australia.
Horses	567,371	412,867	522,490	205,865	160,876	34,908	37,452	924	1,942,753
Cattle	2,784,615	1,304,426	5,128,341	263,016	837,527	208,812	768,751	5,269	11,300,757
Sheep	50,184,950	16,498,222	18,509,201	7,079,947	8,943,002	2,000,605	7,635	207,211	103,430,773
Pigs ..	311,605	222,084	215,764	62,723	49,243	48,304	407	51	910,181

2. **Basis of Valuation.**—To arrive at a value for the live-stock included in the table above mean values taken from recorded average market prices for each State have been applied. The values adopted were as follow :—

**VALUES ADOPTED FOR VALUATION OF LIVE STOCK.**

Kind of Stock.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Horses ..	10 0 0	16 17 6	7 0 0	8 0 0	18 0 0	22 10 0	7 0 0	10 0 0
Cattle ..	6 15 0	9 15 0	6 0 0	7 0 0	12 10 0	12 0 0	6 0 0	6 15 0
Sheep ..	0 17 6	0 19 0	0 11 6	0 15 9	0 15 9	1 1 0	0 11 6	0 17 6
Pigs ..	1 11 0	1 11 0	1 15 0	1 15 3	2 3 6	0 15 0	1 15 0	1 11 0

3. **Estimated Value of Principal Classes.**—On the basis of the rates quoted above, the values obtained for the classes of live-stock included were as follow :—

**VALUATION OF PRINCIPAL CLASSES OF LIVE-STOCK, AUSTRALIA, 1928-1929.**

Kind of Stock.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.	Australia.
	£	£	£	£	£	£	£	£	£
Horses	5,673,710	6,967,131	3,657,430	1,646,920	2,895,768	785,430	262,164	9,240	21,897,793
Cattle	18,796,151	12,718,154	30,770,046	1,841,112	10,469,088	2,505,744	4,612,506	35,566	81,748,367
Sheep	43,911,831	15,673,311	10,642,791	5,575,458	7,042,614	2,100,635	4,390	181,310	85,132,340
Pigs	482,988	344,230	377,587	110,549	107,104	36,228	712	79	1,459,477
Total	68,864,680	35,702,826	45,447,854	9,174,039	20,514,574	5,428,037	4,879,772	226,195	190,237,977

For Australia as a whole these values average £11 5s. 5d. per head for horses, £7 4s. 8d. per head for cattle, 16s. 6d. per head for sheep, and £1 12s. 1d. per head for pigs.

4. **Minor Classes.**—Of the minor classes of live-stock, poultry is the most important. Hitherto the statistics of poultry have been very incomplete, but it is hoped that better information will be available in the near future. It was ascertained in the year 1911 that the total value of poultry in Victoria amounted to 36 per cent. of the value of poultry and eggs produced in the State during that year, and in connexion with the present estimate it is assumed that the value of poultry in each State at 30th June, 1929, also amounted to 36 per cent. of the value of poultry and eggs produced in the year 1928-29. On this basis the value of poultry was as follows :—

**ESTIMATED VALUE OF POULTRY AS AT 30th JUNE, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
£	£	£	£	£	£	£	£	£
1,198,440	1,565,280	222,958	379,418	164,247	108,000	..	1,147	3,639,490

The other kinds of domestic live-stock in Australia are relatively unimportant, and consist mainly of goats, camels, mules and donkeys. For the purposes of the present estimate the values of these have been taken at 7s. 6d. per head for goats, £7 10s. per head for camels, £5 10s. per head for mules, and £2 15s. per head for donkeys. On this basis the values for the several States and Territories were as follow :—

**ESTIMATED VALUE OF GOATS, CAMELS, MULES AND DONKEYS, 1928-29.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
£	£	£	£	£	£	£	£	£
10,849	2,331	42,302	25,969	69,293	..	16,496	..	167,240

5. **Total Values.**—A combination of the foregoing results gives a total for Australia, of £194,045,000, made up as follows :—

**ESTIMATED TOTAL VALUE OF AUSTRALIAN LIVE-STOCK, 1928–29.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
£1,000 70,074	£1,000 37,271	£1,000 45,713	£1,000 9,580	£1,000 20,748	£1,000 5,536	£1,000 4,896	£1,000 227	£1,000 194,045

The total for Australia represents an average of £30 8s. 11d. per head of the population at 30th June, 1929.

**§ 4. Agricultural, Dairying and Pastoral Implements and Machinery.**

1. **Details Recorded.**—In all the States and Territories except Victoria, returns are furnished annually showing separately the values of implements and machinery (i) used mainly in general agriculture ; (ii) used mainly in dairying ; (iii) used mainly in pastoral pursuits ; and (iv) travelling machinery.

The results and the relation (i) of agricultural and travelling implements and machinery to the area under cultivation ; (ii) of dairying implements and machinery to the number of dairy cattle ; and (iii) of pastoral implements and machinery to the number of sheep, are given in the following table :—

**VALUES OF AGRICULTURAL, DAIRYING AND PASTORAL IMPLEMENTS AND MACHINERY, 1928–29.**

State or Territory.	Agricultural Implements and Machinery.		Dairying Implements and Machinery.		Pastoral Implements and Machinery.		Travelling Machinery.	
	Total Value.	Value per 100 acres under crop.	Total Value.	Value per 100 head of Dairy Cattle.	Total Value.	Value per 1,000 head of Sheep. (a)	Total Value.	Value per 100 acres under crop.
N.S.W.	£ 11,045,551	£ s. d. 202 18 8	£ 1,214,667	£ s. d. 141 11 0	£ 5,067,943	£ s. d. 72 19 5	£ 37,065	£ s. d. 0 13 7
Qld. . .	4,292,768	410 18 9	991,748	155 14 0	2,738,056	43 3 5	613,856	58 15 3
S.A. . .	7,186,975	154 4 6	202,587	200 5 10	584,854	67 4 8	10,685	0 4 7
W.A. . .	6,620,905	155 8 11	90,546	139 2 2	847,360	50 16 9	75,885	1 15 8
Tas. . .	554,719	203 1 7	99,092	145 11 1	59,437	17 8 10	98,400	36 0 6
N.T. . .	5,000	..	..	..	20,000	..	..	..
F.C.T. . .	14,720	..	1,825	..	10,641	..	..	..
<b>Total</b>	<b>29,720,638</b>	<b>189 9 11</b>	<b>2,600,465</b>	<b>150 6 4</b>	<b>9,328,291</b>	<b>48 6 9</b>	<b>835,891</b>	<b>5 6 7</b>

(a) For the purposes of this return cattle have been converted into their equivalent in sheep by multiplying by ten.

2. **Estimate for Victoria.**—The travelling machinery shown in the foregoing table being mainly agricultural, its total value has been shown in relation to the area under crop. As the conditions in respect of agriculture, dairying and pastoral pursuits in Victoria are probably more closely allied to those in New South Wales than to those in any other State, it has been assumed, for the purpose of estimating the total value for Victoria, that the values per 100 acres, etc., shown above for New South Wales are applicable to the appropriate data available for Victoria. On this basis the Victorian values for 1928–29 have been estimated as follows :—Agricultural, £11,173,000 ; dairying, £871,000 ; pastoral, £2,339,000 ; travelling, £37,000 ; total, £14,420,000.

The aggregate for Australia for 1928-29 is thus estimated to be as follows:—

**ESTIMATED VALUE OF AGRICULTURAL, DAIRYING AND PASTORAL IMPLEMENTS AND MACHINERY, 1928-29.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
£1,000 17,365	£1,000 14,420	£1,000 8,636	£1,000 7,985	£1,000 7,635	£1,000 812	£1,000 25	£1,000 27	£1,000 56,905

The total for Australia represents an average of £8 18s. 7d. per head of population as at 30th June, 1929.

**§ 5. Manufacturing Plant and Machinery.**

In all the States statistics regarding factories are collected and tabulated annually. For this purpose, a factory is defined as an industrial establishment in which four or more persons are employed, or in which power other than hand-power is used, whatever number of persons are employed. The particulars ascertained include the approximate value of plant and machinery employed in such factories, and these figures for 1928-29 have been used for the purposes of the present estimate. The value of plant and machinery employed in Government ship and boat building and repairing works (£1,393,000), in railway and tramway workshops (£5,727,000), which are mainly Government establishments, and which are ordinarily included in factory statistics, have not been included in this estimate of private wealth. The deduction is probably somewhat in excess for railway and tramway workshops as some of these are private concerns, but the excess may be considered as a set-off to the values associated with other Government enterprises of a minor character.

**APPROXIMATE VALUE OF MANUFACTURING PLANT AND MACHINERY, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	Australia.
£1,000 47,123	£1,000 32,581	£1,000 16,199	£1,000 9,680	£1,000 5,735	£1,000 6,254	£1,000 117,572

The total for Australia represents £18 9s. per head of population as at 30th June, 1929.

**§ 6. Mining Properties.**

1. *Difficulties of Estimation.*—A reliable estimate of the value of mining properties in Australia is difficult to obtain. In connexion with the Wealth Census of 1915, a careful examination of the paid-up capital and the dividends of such companies operating at the 30th June, 1915, disclosed the fact that the paid-up capital at that date amounted to £45,874,366, and that dividends reported for the year ended 30th June, 1915, came to £1,354,805. A similar investigation in respect of the dividends for mines operating at 31st December, 1916, indicated that the total amount of the dividends paid during 1916 was £1,569,253. Writing under date December, 1913, the late Mr. R. L. Nash, in his "Australasian Joint Stock Companies Year-Book, 1913-14" gave results for Australasia, which, after the deduction of the figures stated or estimated to be on account of New Zealand, indicate for the Australian mining companies a paid-up capital of about £50,000,000 and an annual dividend of about £3,300,000, but the period to which the data relate is not stated. The figure so given for paid-up capital is only about 10 per cent. in excess of that indicated above, but the amount of dividends shown is much

higher, exceeding by nearly 150 per cent. the amount computed for the year 1914-15, and by about 110 per cent. that computed for 1916. Probably the reduction in the amount of dividends was due in large measure to the dislocating effect of the War. In view of these facts, it was not deemed advisable to attempt a valuation based on the capitalization of the dividends, but the paid-up capital was taken, with a deduction of 10 per cent. to allow for over capitalization, giving a valuation of £41,319,000.

2. **Value of Mining Plant and Machinery.**—Approximate values of the mining plant and machinery are furnished annually by the Departments of Mines of all the States except Victoria and Tasmania. The figures given for the year 1929 for these States and for the Northern Territory are as follow, an estimate being included for Victoria and Tasmania based upon returns showing the number of men employed, and the value of the output for the year :—

**ESTIMATED VALUE OF MINING PLANT AND MACHINERY, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	Australia.
£1,000 10,642	£1,000 662	£1,000 1,189	£1,000 833	£1,000 1,391	£1,000 790	£1,000 22	£1,000 15,529

3. **Annual Value of Mineral Production.**—The total value of the mineral production of Australia is compiled annually by the Mines Departments of the several States, the results for the year 1929 being as follow :—

**VALUE OF MINERAL PRODUCTION, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	Australia.
£1,000 10,155	£1,000 1,116	£1,000 1,707	£1,000 1,299	£1,000 2,088	£1,000 1,561	£1,000 19	£1,000 17,945

4. **Earlier Estimates of Value of Mining Properties.**—In his estimates of the values of "mines and mining plant" Sir T. A. Coghlan gave an estimate of £33,823,000 for 1890, and an estimate of £32,199,000 for 1903. In his estimate for 1915, Sir George Knibbs gave £41,319,000, while the value determined by Mr. C. H. Wickens for 1921 was £34,000,000, for 1923, £36,698,000, for 1925, £38,801,000, and for 1927, £36,945,000.

5. **Estimate for 1929.**—These various estimates suggest that a reasonable estimate would be obtained by adding to the estimated value of Mining Plant and Machinery the value of one year's mineral production. On this basis the estimated value of Mining Properties in Australia in 1929 would be as follows :—

**ESTIMATED VALUE OF MINING PROPERTIES, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	Australia.
£1,000 20,797	£1,000 1,778	£1,000 2,896	£1,000 2,132	£1,000 3,479	£1,000 2,351	£1,000 41	£1,000 33,474

The total for Australia represents an average of £5 5s. per head of the population at 30th June, 1929.

§ 7. Coin and Bullion.

1. Location of Stocks.—The principal stocks of coin and bullion in Australia are (a) those held by the Cheque-Paying Banks; (b) those held by the Commonwealth Bank as Australian Note Reserve; (c) those held by the Mint; (d) those in the hands of the public.

2. Holdings by Cheque-Paying Banks.—Returns are furnished quarterly by all the cheque-paying banks, showing for each State and the Northern Territory the average for the quarter of the weekly recorded holdings of coin and bullion. The averages for the half-year ended 30th September, 1929, were as follow:—

CHEQUE-PAYING BANKS' AVERAGE HOLDINGS OF COIN AND BULLION.

Particulars.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
Coin .. ..	£1,000 11,926	£1,000 8,397	£1,000 1,928	£1,000 1,673	£1,000 1,088	£1,000 603	£1,000 3	£1,000 3	£1,000 25,621
Bullion .. ..	6	33	1	94	113	..	..	..	247
Coin and Bullion	11,932	8,430	1,929	1,767	1,201	603	3	3	25,868

The mean figures here given represent approximately the position at 30th June, 1929. As, however, they represent the face values of the several coins and the value in gold coin of the bullion held, they must be adjusted by the application of appropriate factors representing the currency values of the coin and bullion concerned. At 30th June, 1929, the sovereign was worth £1 or 1.000 of its face value. In the same year the cost to the Commonwealth Treasury of silver and bronze coin issued by it was 24.46d. per ounce for silver and 10.719d. per lb. for bronze. The face value of silver coin is 5s. 6d. per ounce, hence the ratio of metallic value to face value is 0.371. On the assumption that the total amounts of pence and half-pence in circulation are equal in face value, bronze coins having a face value of £1 weigh approximately 5½ lbs., hence the appropriate reduction factor in the case of bronze is about 0.246. Returns furnished by various banks as at 30th June, 1929, indicate that at that date the face value of the coin held by them was distributed in the following proportions:—gold, 89.87 per cent., silver, 9.60 per cent.; and bronze, 0.53 per cent. Taking these proportions in conjunction with the adjustment factors indicated above, the estimated banks' holdings of coin at 30th June, 1929, must be multiplied by 0.936 and the corresponding holdings of bullion, all of which is gold, by 1.000 to reduce them to their equivalent metallic values in terms of currency.

The results obtained from the requisite calculations are as follow:—

ESTIMATED METALLIC VALUE OF COIN AND BULLION HELD BY THE CHEQUE-PAYING BANKS AT 30th JUNE, 1929.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
Coin .. ..	£1,000 11,163	£1,000 7,860	£1,000 1,805	£1,000 1,566	£1,000 1,018	£1,000 564	£1,000 3	£1,000 3	£1,000 23,982
Bullion .. ..	6	33	1	94	113	..	..	..	247
Total .. ..	11,169	7,893	1,806	1,660	1,131	564	3	3	24,229

3. Holding of Commonwealth Bank.—The Commonwealth Bank Act 1920, authorized the establishment of a note issue Department of the Bank, and the transfer to that department of the existing note issue made under the provisions of the Australian Notes

Act 1910-14, the latter Act being repealed. The minimum gold reserve in connexion with the note issue is fixed at one-fourth of the amount of notes issued, and on 30th June, 1929\*, such reserve amounted to £22,651,497 face value, or 52.97 per cent. of the notes in circulation. The ratio of bullion value to face value of gold coin being 1.000 at that date, the value of the reserve was £22,651,497.

4. **Holding by the Mint.**—The amount held by the Mint at any given time is relatively unimportant. The accounts for the branches at Melbourne and Perth are made up to 31st December in each year, and show in the "Bullion Account" the value of the bullion in store at the beginning and end of the year. For the purposes of the present estimate the mean of these for 1929 has been taken as representing approximately the position at the 30th June, 1929.

The figures so obtained for the two branches are as follow, Melbourne, £9,081, Perth, £15,419.

5. **Coin in Circulation.**—As regards the value of coin held by the general public, there is very little definite information on which to base a estimate. Gold coin was withdrawn from circulation during the War and has not since been re-issued. It is probable that some gold is still hoarded but it is not likely that its omission will seriously affect these estimates. It was estimated in 1923 by the Deputy-Master of the Melbourne branch of the Royal Mint that the amount of silver and bronze coin then in circulation in Victoria had a face value of £680,812 for silver coin and of £80,379 for bronze coin. These values average approximately 8s. 6d. and 1s. respectively per head of population. This amount per capita was applied to the population of the several States and Territories as at 30th June, 1929, and an allowance was made based on the ratios of metallic to face values determined above.

The values obtained were as follow :—

**ESTIMATED METALLIC VALUE OF SILVER AND BRONZE COIN HELD BY THE PUBLIC, 30th JUNE, 1929.**

V.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
£ 418,550	£ 300,438	£ 157,582	£ 98,486	£ 69,984	£ 36,122	£ 709	£ 1,417	£ 1,083,288

6. **Summary.**—Combining these results the value and distribution of coin and bullion were approximately as follow :—

**ESTIMATED METALLIC VALUE OF COIN AND BULLION IN AUSTRALIA, 30th JUNE, 1929.**

Particulars.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Aus- tralia.
Held by Banks	£1,000 11,169	£1,000 7,893	£1,000 1,806	£1,000 1,660	£1,000 1,131	£1,000 564	£1,000 3	£1,000 3	£1,000 24,229
Australian Note Reserve ..	..	22,651	..	..	..	..	..	..	22,651
Held by Mint ..	..	9	..	..	15	..	..	..	24
Held by public	419	300	158	98	70	36	1	1	1,083
Total ..	11,588	30,853	1,964	1,758	1,216	600	4	4	47,987

The total for Australia represents an average of £7 10s. 7d. per head of population at 30th June, 1929.

\* This statement is not affected by Act No. 6 of 1931 which permitted a temporary reduction of the gold reserve.

### § 8. Private Railways and Tramways.

1. **Private Railways.**—In each of the States, the principal lines of railway are owned and worked by the Government, while the majority of the tramways are under the control either of the government of the States or of municipal authorities. There are, however, in addition to the government railways, some 3,143 miles of privately-owned lines in Australia, a large proportion of the mileage being used solely for special industrial purposes, such as haulage of coal in New South Wales, of sugar in Queensland, and of timber in Western Australia. Of the private lines used for general traffic, the most extensive are the Midlands Railway (277 miles) in Western Australia, the Lucinda Point Railway (60½ miles) in Queensland, the Emu Bay Railway (103 miles) in Tasmania, and the Silverton Tramway (36½ miles) in New South Wales.

2. **Private Tramways.**—Electric tramways are operated by private companies at Ballarat, Bendigo, and Geelong in Victoria, and at Kalgoorlie in Western Australia. There is also a privately owned steam tramway in New South Wales.

3. **Summary.**—In the absence of any valuations of the several private lines, the cost of construction has been taken as the value.

#### ESTIMATED VALUE OF PRIVATE RAILWAYS AND TRAMWAYS, 1929.

Particulars.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	Australia.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Private Railways—							
General Traffic ..	2,827	90	943	215	2,101	1,317	7,493
Special Purposes ..	943	136	2,770	67	2,380	866	7,162
Private Tramways ..	5	413	..	..	452	..	870
Total .. ..	3,775	639	3,713	282	4,933	2,183	15,525

The total for Australia represents an average of £2 8s. 9d. per head of population at 30th June, 1929.

### § 9. Shipping.

1. **Vessels on Australian Registers.**—A summary of information available in respect of the number and net tonnage of vessels on the registers at 30th June, 1929, is given in the following table :—

#### VESSELS ON AUSTRALIAN REGISTERS AT 30th JUNE, 1929.

Particulars.	Number.	Average Tonnage per Vessel.	
		Net Tonnage.	Average Tonnage per Vessel.
		Tons.	Tons.
Steam—			
Dredges and Tugs ..	102	3,568	35
Other Vessels .. ..	858	231,734	270
Sailing—			
Fitted with auxiliary power ..	372	22,562	61
Other Vessels .. ..	843	25,054	30
Barges, Hulks, Dredges, etc. (not self-propelled) ..	165	48,681	295
Total .. ..	2,340	331,599	142



2. **Average Value per Net Ton.**—For the purposes of the present estimate, some of the leading ship-owners were asked for an approximate value per net ton as at 30th June, 1929, applicable to the vessels on the registers. The average values supplied per net ton were as follows:—Steam Dredges, £80, Steam Tugs, £215. Other Steam Vessels, £24, Sailing Vessels fitted with auxiliary power, £30, Other Sailing Vessels, £20, Barges Hulks, Dredges, etc., not self-propelled, £11.

3. **Estimated Value.**—For the purposes of localization, the vessels registered in the several States and in the Northern Territory have been treated as domiciled therein, and the estimated values are as follow:—

**ESTIMATED VALUE OF SHIPPING REGISTERED, 30th JUNE, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	Australia.
£1,000 2,531	£1,000 3,978	£1,000 263	£1,000 816	£1,000 203	£1,000 209	£1,000 4	£1,000 8,004

The total for Australia represents an average of £1 5s. 1d. per head of population at 30th June, 1929.

### § 10. Products of Local Industry.

1. **Agricultural and Pastoral.**—At whatever point of time an estimate of wealth is made, there will always be a proportion of a previous season's production in the hands of producers and dealers. In addition, there will usually be a certain amount of work performed, seed sown, etc., for the succeeding harvest. In Australia, moreover, there is also a large value attachable to the wool clip, and a fair proportion of wool is shorn in the middle period of any year. To allow for these several factors, it has been assumed that the value of agricultural and pastoral products in the hands of producers and dealers at 30th June, 1929, plus the value of work done, etc., for the ensuing season, may be taken at one-half the value of the agricultural production for the season 1928–29, plus 90 per cent. of the wool clip of the year 1929. The estimate which has been made above in respect of sheep may be treated as value "off shears." No allowance has been made for stocks of meat, butter, tallow, skins, hides, etc., held locally. The value obtained is as follows:—

**ESTIMATED VALUE OF AGRICULTURAL AND PASTORAL PRODUCTS AS AT 30th JUNE, 1929.**

Particulars.	N.S.W.	Vict.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
Agricultural ..	£1,000 12,157	£1,000 11,871	£1,000 6,355	£1,000 6,576	£1,000 5,965	£1,000 1,787	£1,000 2	£1,000 7	£1,000 44,720
Pastoral ..	32,312	12,460	9,669	4,188	3,920	1,199	2	(a)	63,750
Total ..	44,469	24,331	16,024	10,764	9,885	2,986	4	7	108,470

(a) Included with New South Wales.

The total for Australia represents an average of £17 os. 5d. per head of the population at 30th June, 1929.

2. **Local Manufactures.**—The value of the output of manufacturing establishments is obtained annually in the several States, and for the year 1928–29 the total amounted to £420,445,288 for the whole of Australia. In this total, however, railway and tramway

workshops and docks and shipbuilding yards, which are largely Government owned represent £20,047,341, and this figure has been deducted in order to reduce the total to a "private" basis. For the present estimate it has been assumed that one-sixth of the year's output of factories would be in the hands of merchants and dealers at 30th June, 1929, and that the same proportion would be in the hands of the manufacturers in the form of (a) completed articles, (b) partly manufactured goods, or (c) raw materials. The estimate for the holdings of all parties is as follows :—

**ESTIMATED VALUE OF LOCALLY MANUFACTURED PRODUCTS HELD AT  
30th JUNE, 1929.**

N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
£1,000 58,182	£1,000 41,376	£1,000 15,232	£1,000 10,504	£1,000 5,393	£1,000 2,779	£1,000 133,466

The total for Australia represents an average of £20 18s. 10d. per head of the population at 30th June, 1929.

3. Mining Products.—Many of the products of mining in Australia are in the hands of manufacturers and banks, or are exported soon after their extraction. This applies particularly to gold. Probably the mineral most extensively held after extraction, and before manufacture, consumption, export, etc., is coal. In the United States' estimate for the year 1912 it was assumed that at 31st December, 1912, a quantity of coal equal to the whole of that mined during this year was in hand. An estimate on similar lines would be much too high for Australia. For the purpose of the present estimate, it has been assumed that at 30th June, 1929, no gold was in the hands of the mining companies, and that the value of the other minerals so held was one-sixth of the total production of such minerals for the year 1929. Returns of the quantity and value of all minerals produced are published annually by the Mines Departments of the several States.

The values ascertained in the manner indicated above are as follow :—

**ESTIMATED VALUE OF MINERAL STOCKS (OTHER THAN GOLD),  
30th JUNE, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	Australia.
£1,000 1,687	£1,000 167	£1,000 278	£1,000 216	£1,000 81	£1,000 256	£1,000 3	£1,000 2,688

The total for Australia represents an average of 8s. 5d. per head of the population at 30th June, 1929.

**§ 11. Merchandise and Personal Effects.**

1. Imported Merchandise.—During the year ended 30th June, 1929, the imports of merchandise into Australia were valued at £143,647,881. For the purposes of the present estimate it has been assumed that at 30th June, 1929, the value of such merchandise in bonded warehouses, and in the hands of traders was one-half of the total value, or in round numbers £71,824,000. Owing to the absence of interstate trade statistics, it is impossible to allocate accurately these imports to States of ultimate destination. Figures are available showing the values of oversea merchandise directly delivered in each of the States, but as imports into some of the States, more particularly New South Wales and Victoria, are subsequently transferred to other States, it is clear

that an estimate based on direct imports would misrepresent the ultimate distribution. The total of £71,824,000 mentioned above has consequently been allocated to the several States and Territories on a population basis, with the following results :—

**ESTIMATED VALUE OF IMPORTED MERCHANDISE ON HAND,  
30th JUNE, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
£1,000 27,751	£1,000 19,919	£1,000 10,448	£1,000 6,530	£1,000 4,640	£1,000 2,395	£1,000 47	£1,000 94	£1,000 71,824

The Australian total represents an average of £11 5s. 5d. per head of the population at 30th June, 1929.

2. **Clothing and Personal Adornments.**—Under this head may be included all articles of wearing apparel, watches, jewellery, etc., in the hands of the public. Articles of this nature in bonded warehouses or in the hands of traders have been already accounted for under other heads. The item is one of some importance, but there are no readily available means for making a reliable estimate of the value involved. It has, therefore, been assumed that an average of £5 per head of the population at 30th June, 1929, might be taken as a figure which at all events does not exaggerate the position. The result is as follows :—

**ESTIMATED VALUE OF CLOTHING AND PERSONAL ADORNMENTS,  
30th JUNE, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
£1,000 12,312	£1,000 8,838	£1,000 4,635	£1,000 2,897	£1,000 2,059	£1,000 1,062	£1,000 21	£1,000 42	£1,000 31,866

3. **Furniture, Fittings, etc.**—Under this head an estimate is given of (i) household furniture and fittings, (ii) books, (iii) pictures and china, (iv) musical instruments, (v) sewing machines, (vi) kitchen utensils, (vii) fancy goods, etc., etc.

As in the case of the preceding item, the materials available for an estimate are meagre. It is evident, however, that the wealth under this head must be considerable.

The estimate was made in the following manner :—The Census of 4th April, 1921, furnished the number of occupied dwellings in each State and Territory, to which values per dwelling as shown in the following statement were applied after consideration of previous valuations and making allowance for relative increases :—

Particulars.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.
Number of occupied dwellings .. ..	433,188	331,283	160,196	107,918	73,550	45,818	1,074	526
Estimated Value of contents per occupied dwelling .. ..	£100	£100	£75	£100	£75	£75	£40	£75
Estimated value per head of census-population ..	£20.62	£21.63	£15.89	£21.80	£16.58	£16.07	£11.11	£15.34

As the number of dwellings in 1929 was not available, the amount per head shown above was multiplied into the population, giving the following results, viz. :—

**ESTIMATED VALUE OF FURNITURE, ETC., AS AT 30th JUNE, 1929.**

N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
£1,000 59,775	£1,000 38,232	£1,000 14,731	£1,000 12,631	£1,000 6,827	£1,000 3,415	£1,000 46	£1,000 128	£1,000 126,785

The total for Australia represents an average of £19 17s. 10d. per head of the population at 30th June, 1929, or £93 2s. per occupied dwelling on the 1921 census average of 4.68 inmates per occupied dwelling.

**§ 12. Vehicles, Aircraft and Wireless.**

1. **Motor Vehicles.**—The registration of motor vehicles is compulsory in all the States and the number of such vehicles in use at 30th June, 1929, was as follows :—

**NUMBER OF MOTOR VEHICLES REGISTERED, 30th JUNE, 1929.**

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Motor Cars ..	162,298	113,467	59,799	56,938	26,706	11,361	166	1,027	430,862
Commercial Vehicles ..	43,572	430,377	416,009	12,853	10,235	1,860	227	215	115,348
Motor Cycles ..	30,937	24,554	8,281	12,635	7,106	4,373	42	121	88,049
Total ..	236,807	168,398	84,089	81,526	44,047	17,594	435	1,363	634,259

(a) Estimated.

Some of these vehicles belong to the Federal and State Governments, but their number is relatively so small that the valuation is not appreciably affected thereby. The average values have been fixed at £275 for motor cars, £60 for cycles and £200 for commercial vehicles, and the application of these averages to the numbers shown above gives the results incorporated in the following table :—

**ESTIMATED VALUE OF MOTOR VEHICLES, 30th JUNE, 1929.**

Particulars.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Australia.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Motor Cars ..	44,632	31,203	16,445	15,410	7,344	3,124	46	282	118,486
Commercial Vehicles ..	8,714	6,075	3,202	2,571	2,047	372	45	43	23,069
Motor Cycles ..	1,856	1,473	497	758	426	262	3	7	5,282
Total ..	55,202	38,751	20,144	18,739	9,817	3,758	94	332	146,837

The total for Australia represents an average of £23 0s. 10d. per head of the population at 30th June, 1929.

2. **Other Vehicles.**—With the increasing use of motor vehicles, there is a decline in the number of horse-drawn vehicles in use. Data concerning the number and value of the latter are not available, while fairly large numbers have already been included in various parts of the foregoing estimate under such heads as "Machinery and Plant", "Implements and Machinery". It is probable that as an offset to the number not taken into account, the record given in paragraph 1 above includes some motor vehicles already counted elsewhere under more general heads. In these circumstances it has been considered desirable to ignore horse-drawn vehicles.

3. Aircraft.—The number of aircraft registered in the various States and the estimated value thereof as stated principally by the registered owners (and, in the few cases in which the information was not furnished, arrived at by approximation), were as follow :—

**AIRCRAFT.—PARTICULARS FOR YEAR ENDED 30th JUNE, 1929.**

Aircraft.	N.S.W.	Victoria.	Qld.	S.A.	W.A.	Tas.	Australia.
Number .. ..	48	42	19	13	16	2	140
Value .. ..	£32,250	£27,100	£20,200	£14,150	£43,550	£1,500	£138,750

4. Wireless Stations.—Particulars of the number and value of wireless stations in Australia for which licences were in force in 1928–29 are given in the following tables. The values have been supplied by the Chief Inspector of Wireless, Postmaster-General's Department.

Class of Station.	Number of Stations.	Estimated Value.	
		Per Station.	Aggregate.
		£	£
Coast .. ..	18	4,500	81,000
Ship .. ..	109	800	87,200
Land .. ..	12	450	5,400
Broadcasting—			
Class A .. ..	8	6,500	52,000
Class B .. ..	12	1,100	13,200
Broadcast Listeners	300,504	15	4,507,560
Experimental—			
Transmitting .. ..	585	75	43,875
Receiving .. ..	82	25	2,050
Portable .. ..	15	75	1,125
Special .. ..	26	200	5,200
<b>Total .. ..</b>	<b>301,371</b>	<b>..</b>	<b>4,798,610</b>

The aggregate values of the stations located in each of the States and in the Northern Territory in 1928–29 were as follow :—

Class of Station.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	N.T.	Aus- tralia.
	£	£	£	£	£	£	£	£
Coast .. ..	4,500	4,500	27,000	4,500	22,500	13,500	4,500	81,000
Ship .. ..	8,800	47,200	9,600	16,000	4,800	800	..	87,200
Land .. ..	2,700	1,350	900	..	450	..	..	5,400
Broadcasting—								
Class A .. ..	13,000	13,000	6,500	6,500	6,500	6,500	..	52,000
Class B .. ..	7,700	2,200	1,100	2,200	..	..	..	13,200
Broadcast Listeners	1,511,970	2,138,010	369,540	358,905	57,615	71,265	255	4,507,560
Experimental—								
Transmitting .. ..	14,475	13,800	5,100	5,325	3,225	1,950	..	43,875
Receiving .. ..	525	800	300	150	150	125	..	2,050
Portable .. ..	450	150	450	75	..	..	..	1,125
Special .. ..	4,000	1,200	..	..	..	..	..	5,200
<b>Total ... ..</b>	<b>1,568,120</b>	<b>2,222,210</b>	<b>420,490</b>	<b>393,655</b>	<b>95,240</b>	<b>94,140</b>	<b>4,755</b>	<b>4,798,610</b>

Particulars in respect of the "Beam" Station are not available separately, but are included partly in Class (i) Land and improvements, and (iv) Manufacturing plant and machinery.

### § 13. Summary of Private Wealth, 1929.

1. **Aggregate.**—The summation of the detailed estimates given in the preceding sections, shows the total value of private wealth existing in Australia, exclusive of private interests in national and communal property, to be approximately £3,351,000,000 or £526 per head of the population at 30th June, 1929.

It must be noted that before the results of this estimate can be properly compared with estimates based on a wealth census or on probate returns, the amount of securities issued by Australian governments and held by persons in Australia must be added to this estimate because the value of these securities would be taken into account in the census and probate methods. At the 30th June, 1929, the Australian government securities held locally amounted to £610,000,000. This amount would therefore increase the total value of private wealth in Australia to £3,961,000,000. A summary of the various categories into which the different forms of wealth have been grouped is given in the following table:—

#### ESTIMATE OF THE PRIVATE WEALTH OF AUSTRALIA AS AT 30th JUNE, 1929, BASED ON THE INVENTORY METHOD OF ESTIMATION.

Classification of Wealth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Aus- tralia.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
(i) Land and Improve- ments .. .. .	1,036,812	680,650	186,102	192,189	102,524	51,315	640	845	2,251,077
(ii) Live Stock .. .. .	70,074	37,271	45,713	9,580	20,748	5,536	4,896	227	194,045
(iii) Agricultural, Dairying and Pastoral Imple- ments and Ma- chinery .. .. .	17,365	14,420	8,636	7,985	7,635	812	25	27	56,905
(iv) Manufacturing Plant and Machinery .. .. .	47,123	32,581	16,199	9,680	5,735	6,254	..	..	117,572
(v) Mining Properties (in- cluding Plant and Machinery) .. .. .	20,797	1,778	2,896	2,132	3,479	2,351	41	..	33,474
(vi) Coin and Bullion .. .. .	11,588	30,853	1,964	1,758	1,216	600	4	4	47,987
(vii) Private Railways and Tramways .. .. .	(a) 3,775	639	3,713	282	4,933	2,183	..	..	15,525
(viii) Shipping .. .. .	2,531	3,978	263	816	203	209	4	..	8,004
(ix) Agricultural and Pastoral Products .. .. .	44,469	24,331	16,024	10,764	9,885	2,986	4	7	108,470
(x) Locally Manufactured Products .. .. .	58,182	41,376	15,232	10,504	5,393	2,779	..	..	133,466
(xi) Mining Products (other than gold) .. .. .	1,687	167	278	216	81	256	3	..	2,688
(xii) Imported Merchandise .. .. .	27,751	19,919	10,448	6,530	4,640	2,395	47	94	71,824
(xiii) Clothing and Personal Adornments .. .. .	12,312	8,838	4,635	2,897	2,059	1,062	21	42	31,866
(xiv) Furniture and Fit- tings, Books, etc. .. .. .	50,775	38,232	14,731	12,631	6,827	3,415	46	128	126,785
(xv) Motor Vehicles .. .. .	55,202	38,751	20,144	18,739	9,817	3,758	94	332	146,837
(xvi) Aircraft .. .. .	32	27	20	14	44	2	..	..	139
(xvii) Wireless Stations .. .. .	1,568	2,222	421	394	95	94	5	..	4,799
<b>Total .. .. .</b>	<b>1,462,043</b>	<b>976,033</b>	<b>347,419</b>	<b>287,111</b>	<b>185,314</b>	<b>86,007</b>	<b>5,830</b>	<b>1,706</b>	<b>3,351,463</b>
<b>Population at 30th June, 1929 (in thousands) .. .. .</b>	<b>2,462.4</b>	<b>1,767.6</b>	<b>927.1</b>	<b>579.4</b>	<b>411.7</b>	<b>212.5</b>	<b>4.2</b>	<b>8.3</b>	<b>6,373.2</b>
<b>Private Wealth per Head .. .. .</b>	<b>£594</b>	<b>£552</b>	<b>£375</b>	<b>£495</b>	<b>£450</b>	<b>£405</b>	<b>£1,388</b>	<b>£205</b>	<b>£526</b>

(a) As at 30th June, 1927. Later figures not available.

The relatively low estimate of the private wealth of Queensland is due in a large measure to the low value placed on land in this State as compared with other States.

2. **Significance.**—To avoid misunderstanding of the significance of the figures in the preceding table, it may be well to repeat that they represent the estimated value of the private wealth of Australia at the 30th June, 1929, and include values for property in Australia owned by absentees. Property outside Australia owned by Australian residents is, of course, not included, and no account is taken of immaterial wealth such as title deeds, mortgage deeds, debentures, etc., the estimate being based entirely on the material private wealth itself, without regard to the individual titles thereto. Communal wealth in the property of Commonwealth and State Governments, and of local governing bodies, is not included, nor has any allowance been made for the interests of private investors by way of loans in such property.

#### § 14. Earlier Inventory Estimates of Private Wealth in Australia.

1. **Estimates for 1890 and Earlier Years.**—The earliest inventory estimate of private wealth in Australia appears to be that made in 1892 by Mr. (later Sir) T.A. Coghlan, who, at the time, was Government Statistician of New South Wales. Particulars of this estimate were embodied in a paper read before the Australasian Association for the Advancement of Science at its Hobart session in 1892, and were subsequently published in the 1892 issue of Coghlan's "Seven Colonies of Australasia". The estimate relates not only to Australia, but includes figures for New Zealand, and gives aggregates, but not details, in respect of Australasia for 1813, 1838, and 1863. As the permanent settlement of New Zealand dates from 1840, the figures for 1813 and 1838 are necessarily purely Australian, while for 1890 the estimate for New Zealand is shown in detail. For 1863, however, the figures relate to "Australasia" only. For the purpose of comparing the Australian figures for the several years mentioned, it has been assumed here that in the estimate for 1863 the private wealth per head of population was the same in New Zealand as in Australia. With this adjustment, Coghlan's estimates of private wealth in Australia for the years in question may be stated as follow, the average amount per head of mean population being also shown:—

##### COGHLAN'S ESTIMATES OF AUSTRALIAN PRIVATE WEALTH.

Year.	1813.	1838.	1863.	1890.
Aggregate amount ..	£1,000,000	£26,000,000	£160,000,000 <sup>(a)</sup>	£1,019,242,000
Mean Population ..	13,293	143,178	1,233,106	3,106,917
Average per head of Mean Population ..	£75	£182	£130	£328

(a) Adjusted. See letterpress above.

In later issues of "The Seven Colonies of Australasia" the figures for 1890 have been omitted, and an estimate for 1888 has been substituted, presumably with the object of making equal intervals of 25 years between the successive estimates. The figures, however, are given for "Australasia", not for Australia and New Zealand separately. The total shown is £1,015,000,000, or £154,434,000 less than the "Australasian" total for 1890. Assuming this rate of reduction to have applied equally to Australia and New Zealand, the figure for Australia for 1888 would work out at about £885,000,000, or £302 per head of mean population.

EARLIER INVENTORY ESTIMATES OF PRIVATE WEALTH IN AUSTRALIA. 491

The following table shows the estimate for 1890 under eight classes of private wealth for Australia as a whole, particulars having been added showing the relative size of each class, and the amount per head of mean population :—

COGHLAN'S ESTIMATE OF PRIVATE WEALTH IN AUSTRALIA IN 1890.

Classification of Wealth.	Aggregate Amount.	Percentage on Total.	Average amount per head of Mean Population.
	£	%	£ s. d.
Land, Houses and Permanent Improvement .. .. .	721,303,000	70.77	232 3 2
Live Stock .. .. .	102,952,000	10.10	33 2 9
Coin and Bullion .. .. .	28,809,000	2.82	9 5 5
Merchandise .. .. .	44,722,000	4.39	14 7 11
Household Furniture and Personal Property .. .. .	52,863,000	5.19	17 0 3
Shipping .. .. .	5,210,000	.51	1 13 7
Mines and Mining Plant .. .. .	33,823,000	3.32	10 17 9
Plant employed in Agricultural, Manufacturing and other Industries not elsewhere included .. .. .	29,560,000	2.90	9 10 3
<b>Total .. .. .</b>	<b>1,019,242,000</b>	<b>100.00</b>	<b>328 1 1</b>

2. Estimates for 1903 and Earlier Years.—Further estimates of the private wealth of Australasia prepared by Coghlan for the years 1899, 1901 and 1903, were published in his "Seven Colonies of Australasia", and his "Statistical Account of Australia and New Zealand". Particulars of the method of estimating are less complete than for the estimate for 1890, but evidently they were made upon similar principles. The present review deals with details of the latest of these only, viz., that for 1903. The classes of wealth adopted differ slightly from those used in the 1890 estimate, the main alteration being the separation of "Land" from "Houses and Permanent Improvements", and the separation of "Personal Effects" from "Furniture and Household Goods and Effects", thus increasing the number of classes to ten, as compared with eight in the estimate for 1890. The titles of the other classes were in some instances slightly altered, but they were apparently little changed otherwise. The results obtained for Australia were as shown in the succeeding table.

COGHLAN'S ESTIMATE OF PRIVATE WEALTH IN AUSTRALIA FOR 1903.

Classification of Wealth.	Aggregate Amount.	Percentage on Total.	Average Amount Per Head of Mean Population.
	£	%	£ s. d.
Land .. .. .	373,679,000	38.04	95 19 7
Houses and Permanent Improvements	310,265,000	31.60	79 13 10
Live Stock .. .. .	96,915,000	9.86	24 17 10
Furniture and Household Goods and Effects .. .. .	30,899,000	3.15	7 18 9
Personal Effects .. .. .	12,464,000	1.27	3 4 0
Machinery and Implements of Trade (excluding Mining Machinery) .. .. .	33,495,000	3.45	8 12 1
Shipping .. .. .	6,359,000	.65	1 12 8
Mining Properties and Plant .. .. .	32,199,000	3.27	8 5 5
Merchandise and Produce on Hand .. .. .	59,640,000	6.06	15 6 4
Coin and Bullion .. .. .	26,064,000	2.65	6 13 11
<b>Total .. .. .</b>	<b>981,979,000</b>	<b>100.00</b>	<b>252 4 5</b>



### § 15. Comparison of Earlier Estimates With Those for More Recent Dates.

1. Aggregate Amounts.—To compare the estimates made for the years 1915, 1921, 1923, 1927 and 1929, the following table, based on the classification adopted in 1890, has been prepared :—

COMPARISON OF ESTIMATES OF PRIVATE WEALTH.

Classification of Wealth.	Aggregate Amount of Private Wealth.				
	1915 (Knibbs).	1921 (Wickens).	1923 (Wickens).	1927 (Wickens).	1929 (Wickens).
	£1,000	£1,000	£1,000	£1,000	£1,000
(i) Land and Improvements .. ..	1,105,637	1,361,269	1,558,747	1,998,716	2,251,077
(ii) Live Stock .. ..	100,391	158,833	194,497	196,262	194,045
(iii) Agricultural, Dairying and Pastoral Implements and Machinery .. ..	22,799	35,964	40,886	50,663	56,905
(iv) Manufacturing Plant and Machinery .. ..	40,040	67,718	81,207	109,690	117,572
(v) Mining Properties (including Plant and Machinery) .. ..	41,319	34,000	36,698	36,945	33,474
(vi) Coin and Bullion .. ..	44,379	61,216	46,058	48,908	47,987
(vii) Private Railways and Tramways .. ..	11,735	15,973	13,863	15,525	15,525
(viii) Shipping .. ..	13,331	7,243	8,992	8,375	8,004
(ix) Agricultural and Pastoral Products .. ..	59,465	70,515	86,205	111,634	108,470
(x) Locally Manufactured Products .. ..	54,347	104,835	104,821	130,146	133,466
(xi) Mining Products (other than gold) .. ..	2,354	2,660	3,180	3,470	2,688
(xii) Imported Merchandise .. ..	31,782	81,891	65,864	82,358	71,824
(xiii) Clothing and Personal Adornments .. ..	14,851	27,289	28,440	30,837	31,866
(xiv) Furniture and Fittings, Books, etc... ..	77,087	108,780	113,281	122,776	126,785
(xv) Motor Vehicles .. ..	(a)	27,675	40,245	112,812	146,837
(xvi) Aircraft .. ..	..	..	58	61	139
(xvii) Wireless Stations .. ..	..	..	..	4,591	4,799
<b>TOTAL .. ..</b>	<b>1,619,517</b>	<b>2,165,861</b>	<b>2,423,042</b>	<b>3,063,769</b>	<b>3,351,463</b>

(a) Included in Item XIV.

## PRIVATE WEALTH PER HEAD OF POPULATION.

Classification of Wealth.	Average Wealth per Head of Population at 30th June.				
	1915 (Knibbs).	1921 (Wickens).	1923 (Wickens).	1927 (Wickens).	1929 (Wickens).
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
(i) Land and Improvements .. ..	221 15 4	249 11 7	275 0 1	324 1 6	353 4 2
(ii) Live Stock .. ..	20 2 9	29 2 5	34 6 3	31 16 5	30 8 11
(iii) Agricultural, Dairying and Pastoral Implements and Machinery .. ..	4 11 6	6 11 10	7 4 3	8 4 4	8 18 7
(iv) Manufacturing Plant and Machinery .. ..	8 0 7	12 8 4	14 6 6	17 15 8	18 9 0
(v) Mining Properties (including Plant and Machinery) .. ..	8 5 9	6 4 8	6 9 6	5 19 10	5 5 0
(vi) Coin and Bullion .. ..	8 18 0	11 4 6	8 2 6	7 18 7	7 10 7
(vii) Private Railways and Tramways .. ..	2 7 1	2 18 7	2 8 11	2 10 4	2 8 9
(viii) Shipping .. ..	2 13 6	1 6 7	1 11 9	1 7 2	1 5 1
(ix) Agricultural and Pastoral Products .. ..	11 18 7	12 18 7	15 4 2	18 2 0	17 0 5
(x) Locally Manufactured Products .. ..	10 18 0	19 4 5	18 9 10	21 2 1	20 18 10
(xi) Mining Products (other than gold) .. ..	0 9 5	0 9 9	0 11 3	0 11 3	0 8 5
(xii) Imported Merchandise .. ..	6 7 6	15 0 3	11 12 5	13 7 1	11 5 5
(xiii) Clothing and Personal Adornments .. ..	3 0 0	5 0 0	5 0 0	5 0 0	5 0 0
(xiv) Furniture and Fittings, Books, etc... ..	15 9 3	19 18 11	19 19 9	19 18 2	19 17 10
(xv) Motor Vehicles .. ..	(a)	5 1 6	7 2 0	18 5 10	23 0 10
(xvi) Aircraft .. ..	..	..	0 0 2	0 0 2	0 0 5
(xvii) Wireless Stations .. ..	..	..	..	0 14 11	0 15 1
<b>TOTAL .. ..</b>	<b>324 17 3</b>	<b>397 1 11</b>	<b>427 9 4</b>	<b>496 15 4</b>	<b>525 17 4</b>

(a) Included in Item XIV.

## RELATIVE DISTRIBUTION OF PRIVATE WEALTH.

Classification of Wealth.	Percentage on Estimated Total.				
	1915 (Knibbs).	1921 (Wickens).	1923 (Wickens).	1927 (Wickens).	1929 (Wickens).
(i) Land and Improvements .. ..	% 68.27	% 62.85	% 64.33	% 65.24	% 67.17
(ii) Live Stock .. ..	6.20	7.33	8.03	6.40	5.79
(iii) Agricultural, Dairying and Pastoral Implements and Machinery .. ..	1.41	1.66	1.69	1.65	1.70
(iv) Manufacturing Plant and Machinery .. ..	2.47	3.13	3.35	3.58	3.51

RELATIVE DISTRIBUTION OF PRIVATE WEALTH—*continued.*

Classification of Wealth.	Percentage on Estimated Total.				
	1915 (Knibbs).	1921 (Wickens).	1923 (Wickens).	1927 (Wickens).	1929 (Wickens).
(v) Mining Properties (in- cluding Plant and Machinery) ..	%	%	%	%	%
(vi) Coin and Bullion ..	2.55	1.57	1.52	1.21	1.00
(vii) Private Railways and Tramways ..	2.74	2.83	1.90	1.60	1.43
(viii) Shipping ..	.72	.74	.57	.51	.46
(ix) Agricultural ..	.82	.33	.37	.27	.24
(x) Pastoral Products Locally Manufactured Products ..	3.68	3.26	3.55	3.64	3.24
(xi) Mining Products (other than gold)..	3.36	4.84	4.33	4.25	3.98
(xii) Imported Merchan- dise ..	.14	.12	.13	.11	.08
(xiii) Clothing and Personal Adornments ..	1.96	3.78	2.72	2.69	2.14
(xiv) Furniture and Fit- tings, Books, etc...	.92	1.26	1.17	1.01	.95
(xv) Motor Vehicles ..	4.76	5.02	4.68	4.01	3.79
(xvi) Aircraft ..	(a)	1.28	1.66	3.68	4.38
(xvii) Aircraft ..	..	..	.00	.00	.00
(xvii) Wireless Stations ..	..	..	..	.15	.14
TOTAL ..	100.00	100.00	100.00	100.00	100.00

(a) Included in Item XIV.

CHAPTER XVI.  
MINERAL INDUSTRY.

§ 1. The Mineral Wealth of Australia.

1. Place of Mining in Australian Development.—The value of production from the mineral industry is now considerably less than that returned by the agricultural or the pastoral industry, nevertheless it was the discovery of gold in payable quantities that first attracted population to Australia, and thus laid the foundation of its nationhood.

2. Extent of Mineral Wealth.—The extent of the total mineral wealth of Australia cannot yet be regarded as completely ascertained, as large areas of country still await systematic prospecting. More detailed allusion to this matter will be found in preceding Official Year Books. (See No. 22, p. 755.)

3. Quantity and Value of Production in 1931.—(NOTE.—A table showing particulars of mineral production for the year 1932 will be found in the Appendix. This information was not available at the time of compilation of the present Chapter.) The quantities (where available) and the values of the principal minerals produced in each State, and in Australia as a whole, during the year 1931, are given in the tables immediately following. It must be clearly understood that the figures quoted in these tables refer to the quantities and values of the various minerals in the form in which they were reported to the States Mines Departments, and represent amounts which the Mines Departments consider may fairly be taken as accruing to the mineral industry as such. They are not to be regarded as representative of Australia's potentiality as a producer of metals, this matter being dealt with separately in § 17 hereinafter. It may be explained, therefore, that the item pig-iron included in the returns for New South Wales up to the year 1929 refers only to metal produced from the locally-raised ore and so reported to the Mines Department. New South Wales is, of course, in normal times, a large producer of iron and steel from ironstone mined in South Australia. As the table shows, the latter State receives credit for this ironstone in its mineral returns, but the iron and steel produced therefrom cannot be assigned to the mineral industry of New South Wales. Similarly lead, silver-lead, and zinc are credited in the form reported to the State of origin—chiefly New South Wales—although the actual metal extraction is carried out to a large extent elsewhere.

MINERAL PRODUCTION.—QUANTITIES, 1931.

Minerals.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (c)	Australia.
Antimony ..	ton	65	..	..	..	..	..	..	65
Arsenic ..	..	661	..	..	..	409	..	..	1,070
Asbestos ..	..	8	..	..	..	108	..	..	122
Barytes ..	..	122	..	..	1,445	..	..	..	1,567
Bismuth ..	cwt.	750	..	3	4	..	35	..	792
Brown Coal ..	ton	..	2,194,453	..	..	..	..	..	2,194,453
Coal ..	..	6,432,382	571,342	841,308	..	432,400	123,828	..	8,401,260
Copper (ingot, matte, etc.) ..	..	485	..	3,135	..	..	9,833	..	13,453
Copper ore ..	..	56	..	..	22	..	..	1	79
Diatomaceous earth ..	..	1,067	..	..	..	..	..	..	1,067
Gold ..	fine oz.	19,673	43,637	13,147	2,782	510,572	4,760	552	595,123
Gypsum ..	ton	1,738	1,565	..	24,207	222	..	..	27,732
Iron (pig) (b) ..	..	..	..	..	..	..	..	..	..
Iron oxide ..	..	3,665	..	..	..	..	..	..	3,665
Ironstone ..	..	..	..	4,556	289,179	..	..	..	293,735
Kaolin ..	..	2,576	2,973	..	639	..	..	..	6,188
Lead (b) ..	..	..	..	17,184	..	..	2,189	..	19,373
Lead and silver-lead ore, concentrates etc. ..	..	172,380	..	..	..	24	..	9	172,413
Limestone flux ..	..	30,304	..	15,054	14,940	..	55,268	..	115,566
Magnesite ..	..	3,425	50	..	..	..	..	..	3,475
Manganese ore ..	..	..	..	..	13	..	..	..	13
Molybdenite ..	cwt.	5	..	6	..	..	..	..	11
Osmiridium ..	oz.	..	..	..	..	..	1,280	..	1,280
Phosphate ..	ton	94	..	..	515	..	..	..	609
Pigments ..	..	571	..	..	21	..	..	..	592
Platinum ..	oz.	283	..	..	..	..	..	..	283
Salt ..	ton	..	(a)	..	68,666	..	..	..	68,666
Sapphires ..	oz.	..	..	..	..	..	..	..	..
Shale (oil) ..	ton	2,131	..	..	..	..	1,402	..	3,533
Silver ..	fine oz.	50,353	1,512	1,088,478	68	43,739	391,732	..	1,575,882
Tin and tin ore ..	ton	794	5	478	..	39	589	33	1,938
Wolfram ..	..	54	..	1	..	..	..	14	69
Zinc and concentrates ..	..	220,982	..	..	..	..	..	..	220,982

(a) Not available for publication. (b) See letterpress preceding this table; no production of pig-iron recorded for the last three years. (c) Year ended 30th June.

The values of the minerals raised in each State in 1931 are given in the following table:—

## MINERAL PRODUCTION.—VALUE, 1931.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (d)	Australia.
	£	£	£	£	£	£	£	£
Antimony ..	1,990	..	..	..	..	..	..	1,990
Arsenic ..	10,550	..	..	..	7,201	..	..	17,841
Asbestos ..	64	..	..	100	1,446	..	..	1,610
Barytes ..	305	..	..	4,335	..	..	..	4,640
Blismuth ..	5,387	..	37	103	..	1,015	..	6,542
Brown Coal ..	..	251,511	..	..	..	..	..	251,511
Coal ..	4,607,343	362,284	699,926	..	336,178	98,004	..	6,103,735
Copper (ingot and matte) ..	23,298	..	126,342	..	..	416,309	..	565,949
Copper ore ..	650	..	..	934	..	..	25	1,609
Diamonds ..	694	..	..	..	..	..	..	694
Diatomaceous earth ..	3,201	..	..	..	..	..	..	3,201
Gold ..	118,623	262,488	79,652	17,328	3,054,743	28,150	2,535	3,563,519
Gypsum ..	869	428	..	21,181	304	..	..	22,782
Iron (pig) (b) ..	..	..	..	..	..	..	..	..
Iron Oxide ..	2,135	..	..	..	..	..	..	2,135
Ironstone ..	..	..	5,100	332,556	..	..	..	337,656
Kaolin ..	2,892	2,730	..	1,800	..	..	..	7,422
Lead (b) ..	..	..	230,740	..	..	29,024	..	259,764
Lead and silver-lead ore, concentrates, etc. ..	1,076,208	..	..	..	270	..	160	1,076,638
Limestone flux ..	11,364	..	16,626	5,603	..	19,344	..	52,937
Magnesite ..	6,850	190	..	..	..	..	..	7,040
Manganese ore ..	..	..	..	78	..	..	..	78
Molybdenite ..	54	..	48	..	..	..	..	102
Opal ..	2,178	..	600	3,127	..	..	..	5,905
Osmiridium ..	..	..	..	..	..	18,028	..	18,028
Phosphate ..	70	..	..	2,060	..	..	..	2,130
Pigments ..	1,142	..	..	115	..	..	..	1,257
Platinum ..	2,201	..	..	..	..	..	..	2,201
Salt ..	..	(a)	..	154,499	..	..	..	154,499
Sapphires ..	..	..	2,903	..	..	..	..	2,903
Shale (oil) ..	1,814	..	..	..	..	600	..	2,414
Silver (b) ..	3,151	99	75,653	5	2,833	25,754	..	107,495
Tin and tin ore ..	103,111	440	35,744	..	3,945	70,634	2,331	216,205
Wolfram ..	2,633	..	28	..	..	16	384	3,061
Zinc & concentrates ..	512,795	..	..	..	..	..	..	512,795
Unenumerated ..	(c) 16,131	2,164	1,554	4,380	3,462	356	(e) 5,981	34,028
<b>Total ..</b>	<b>6,517,703</b>	<b>882,334</b>	<b>1,274,953</b>	<b>548,204</b>	<b>3,410,472</b>	<b>707,234</b>	<b>11,416</b>	<b>13,352,316</b>

(a) Not available for publication. (b) See letterpress above preceding table. (c) Includes dolomite £2,733, silica £5,484, and fireclay £5,867. (d) Year ended 30th June. (e) Mica, £5,531; tantalite, £450.

It may be pointed out in connexion with the figures given in the above table that the totals are exclusive of returns relating to certain commodities, such as stone for building and industrial uses, sand, gravel, brick and pottery clays, lime, cement, and slates, which might be included under the generic term "mineral." Valuations of the production of some of these may be obtained from the reports of the various Mines Departments, but in regard to others it is impossible to obtain adequate information. In certain instances, moreover, the published information is of little value. Some of the items excluded, such as cement, carbide and sulphuric acid are included in manufacturing production, and, in any case, only the raw material could properly be included in mineral production. The items excluded from the total for New South Wales in 1931 consist of—lime, £28,125; building stone, £147,436; Portland cement, £617,432; coke, £297,318; road materials, £558,112; shell grit, £4,733; mineral water, £55; sulphur and sulphuric acid, £10,877; and brick and pottery clays, £43,015. Carbide, £67,293, and cement, £96,310, have been excluded from the Tasmanian figures.

4. Value of Production, 1927 to 1931.—The value of the mineral production in each State in the five years 1927 to 1931 is given in the table hereunder :—

MINERAL PRODUCTION.—VALUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
	£	£	£	£	£	£	£	£
1927 ..	15,449,702	1,176,378	1,614,535	1,150,847	2,202,437	1,400,994	19,609	23,014,502
1928 ..	12,600,668	1,098,691	1,359,616	1,008,514	2,128,109	1,329,057	14,627	19,539,282
1929 ..	10,155,164	1,116,083	1,683,050	1,295,053	2,087,852	1,556,276	18,345	17,911,823
1930 ..	8,504,034	1,088,343	1,241,125	1,263,398	2,191,393	1,050,923	16,656	15,355,872
1931 ..	6,517,703	882,334	1,274,953	548,204	3,410,472	707,234	11,416	13,352,316

For New South Wales the value of production in 1931 was about £2,000,000 less than that for 1930. The decline was due to the low prices realized for silver, lead, zinc and tin, and to the diminished output of coal.

The decrease in the Victorian returns for 1931 was chiefly due to a fall in the production of black coal although increases were shown for brown coal and gold.

In Queensland the rise in value recorded in 1931 was largely due to increases in the returns from lead, silver, and gold, amounting respectively to £227,000, £70,000, and £46,000, although these increases were partly counterbalanced by a fall of £253,000 in the return from coal, of £48,000 from copper, while the yield from tin showed a decline of £14,000. The returns for South Australia in 1931 showed a decline of over £735,000 on the figures for 1930, the loss being mainly due to a decrease in the production of ironstone from £1,068,000 in 1930 to less than £333,000 in 1931. The value of the gold yield, however, advanced from under £6,000 in 1930 to over £17,000 in 1931. In Western Australia the total for 1931 shows an increase of about £1,219,000 on that for the preceding year. All minerals, however, with the exception of gold, arsenic, and tantalite showed decreases. The yield from gold, which showed an increase of £1,286,000, accounted for nearly 90 per cent. of the total value of the State's output in 1931. The decline in Tasmania during 1931 was mainly due to the fall in price of the chief industrial metals. This was reflected in the returns from copper and lead, which showed decreases of £204,000 and £49,000 respectively. There were also considerable decreases in the returns from silver and wolfram and from coal. It is stated that the decline in the Northern Territory returns for recent years is due in some measure to the fact that some of those engaged in mining forsook it to take up more profitable work in other pursuits. The number of Chinese miners in the Territory has steadily decreased and those remaining are old men. Mica to the value of £5,531 was the chief item of production in 1931, the mineral being obtained in the Arltunga district.

5. Total Production to end of 1931.—In the next table will be found the estimated value of the total mineral production in each State up to the end of 1931. The figures given in the table are also exclusive of the same items referred to in connexion with the preceding table. Thus the total for New South Wales falls short by over £46,000,000 of that published by the State Department of Mines, the principal items excluded being coke, £14,643,000; cement, £18,892,000; lime, £1,676,000; and considerable values for marble, slate, granite, chert, gravels, etc., which the Department now includes in the returns for quarries.

MINERAL PRODUCTION.—VALUE TO END OF 1931.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter. (a)	Australia.
	£	£	£	£	£	£	£	Million. £
Gold ..	64,039,439	303,861,148	86,001,986	1,659,447	168,348,586	9,015,498	2,286,307	635
Silver and lead ..	121,083,327	265,169	4,495,981	383,547	2,281,900	9,085,813	65,903	138
Copper	15,602,929	216,686	26,757,605	33,148,536	1,808,828	20,810,029	233,466	99
Iron ..	7,739,218	15,641	481,092	9,321,891	36,722	52,110	..	17
Tin ..	14,576,630	977,102	11,155,220	..	1,604,219	17,309,922	626,856	46
Wolfram	276,859	11,885	1,065,591	301	1,441	236,387	221,110	2
Zinc ..	24,391,734	..	13,460	15,993	5,437	996,077	..	25
Coal ..	194,189,254	13,783,229	20,152,650	..	6,938,490	1,955,406	..	237
Other ..	8,099,980	875,457	2,778,315	4,591,928	238,632	2,089,440	67,830	19
Total	449,999,370	320,006,317	152,901,900	49,121,643	181,264,255	61,550,712	3,501,472	1,218

(a) To 30th June, 1931.

The "other" minerals in New South Wales include alunite, £209,000; antimony, £362,000; arsenic, £133,000; bismuth, £242,000; chrome, £123,000; diamonds, £146,000; magnesite, £173,000; molybdenite, £213,000; opal, £1,600,000; scheelite, £194,000; and oil shale, £2,692,000. In the Victorian returns antimony ore was responsible for £612,000. The value for coal in this State includes £1,678,000 for brown coal. Included in "other" in the Queensland production were opal, £186,000; gems, £630,000; bismuth, £118,000; cobalt, £155,000; molybdenite, £600,000; limestone flux, £739,000, and arsenic, £124,000. The chief items in South Australian "other" minerals were salt, £2,929,000; limestone flux, £285,000; gypsum, £764,000; phosphate, £133,000; and opal, £128,000. In the Tasmanian returns osmiridium was responsible for £589,000, scheelite for £112,000, and iron pyrites for £94,000.

6. **Decline in the Metalliferous Industry.**—On the 1st December, 1921, a Select Committee was appointed by the Legislative Assembly of New South Wales to inquire into and report upon the serious decline in the metalliferous industry. The result of the Committee's investigations was published in a Report issued in 1922, wherein the chief contributing causes of the decline in New South Wales and in Australia generally were summarized as follows:—(1) High cost of production; (2) Deterioration in ore values in existing mines; (3) Inadequate machinery; (4) High freights; (5) High treatment charges; (6) Imperfect labour conditions in mines; (7) Lack of new payable discoveries; (8) Lack of efficiently-supported prospecting.

7. **Geophysical Methods for Detection of Ore Deposits.**—Reference to the application of geophysical survey methods in Australia will be found in Official Year Book No. 24, p. 570.

## § 2. Gold.

1. **Discovery in Various States.**—The discovery of gold in payable quantities was an epoch-making event in Australian history, for, as one writer aptly phrases it, this event "precipitated Australia into nationhood." A more or less detailed account of the finding of gold in the various States appears under this section in Official Year Books Nos. 1 to 4.

2. **Production at Various Periods.**—In the following table will be found the value of the gold raised in the several States and in Australia as a whole during each of the eight decennial periods from 1851 to 1930, and in single years from 1921 to 1931, from the dates when payable discoveries were first reported. Owing to the defective information in the earlier years the figures fall considerably short of the actual totals, for during the first stages of mining development, large quantities of gold were taken out of Australia by successful diggers, who preferred to keep the amount of their wealth secret.

GOLD.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	£	£	£	£	£	£	£	£
1851-60..	11,539,583	93,337,052	14,565	..	..	788,564	..	105,670,764
1861-70..	13,676,103	65,106,264	2,076,494	..	..	12,174	..	80,871,035
1871-80..	8,576,654	40,625,188	10,733,048	579,068	..	700,048	79,022	61,293,028
1881-90..	4,306,541	28,413,792	13,843,081	246,668	178,473	1,514,921	713,345	49,216,821
1891-1900	10,332,120	29,904,152	23,989,359	219,931	22,308,524	2,338,336	906,988	89,999,410
1901-10..	9,569,492	30,136,686	23,412,395	310,080	75,540,415	2,566,170	473,871	142,009,109
1911-20..	4,988,377	13,354,217	9,876,677	238,808	46,808,351	873,302	100,652	76,240,384
1921-30..	940,946	2,721,309	1,976,715	47,504	20,458,080	193,833	9,894	26,348,341
1921 ..	271,302	554,087	214,060	13,933	2,935,693	28,311	1,299	4,018,685
1922 ..	118,359	501,515	378,154	4,693	2,525,811	16,101	540	3,545,173
1923 ..	83,325	422,105	392,563	4,199	2,232,179	16,300	743	3,151,414
1924 ..	86,905	312,398	459,716	4,093	2,255,932	21,516	3,270	3,143,830
1925 ..	82,498	200,901	197,118	3,535	1,874,320	14,969	1,939	2,375,280
1926 ..	82,551	208,471	43,914	3,219	1,857,716	17,936	594	2,214,401
1927 ..	76,595	163,699	161,321	1,776	1,734,571	20,646	468	2,159,076
1928 ..	54,503	144,068	56,395	2,258	1,671,093	15,306	431	1,944,054
1929 ..	31,842	111,609	40,250	4,289	1,602,142	23,772	553	1,814,457
1930 ..	53,066	102,456	33,224	5,569	1,768,622	18,976	57	1,981,971
1931 ..	118,623	262,488	79,652	17,328	3,054,743	28,150	2,533	3,503,519
1932 ..	203,622	351,586	173,144	22,018	4,413,809	43,137	4,486	5,211,802
Total 1851-1932	64,243,061	304,212,734	86,175,130	1,681,465	172,762,395	9,058,635	2,290,793	640,424,213

In the figures quoted on previous page, allowance has been made in the values for the years in which gold was at a premium in Australian currency.

The value of the gold yield in 1929 was the lowest recorded since the discovery of the precious metal in 1851, while the slight increase in 1930 was to some extent due to the increased activity in prospecting and the working over of old auriferous areas resultant on prevailing economic conditions. Consequent on the enhanced price realized for gold in 1931 the figures for the year show a considerable increase, the total for Australia being the highest recorded since 1921. The average price in Australian currency applied to the production for this year was £5 19s. 9d. Reference to the bounty paid by the Commonwealth Government on local production will be found in § 16. 1. hereinafter.

The amount of gold raised in Australia in any one year attained its maximum in 1903, in which year Western Australia also reached its highest point. For the other States the years in which the greatest yields were obtained were as follow :—New South Wales 1852; Victoria, 1856; Queensland, 1900; South Australia, 1894; and Tasmania, 1899.

The following table shows the quantity in fine ounces of gold raised in each State and in Australia during each of the last five years. A separate line is added showing the total production in thousands of fine ounces since 1851 :—

## GOLD.—QUANTITY PRODUCED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter. (a)	Australia.
	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.
1928 ..	12,831	33,917	13,277	532	393,408	3,603	101	457,669
1929 ..	7,496	26,275	9,476	1,009	377,176	5,597	130	427,159
1930 ..	12,493	24,119	7,821	1,311	416,369	4,467	13	466,593
1931 ..	19,673	43,637	13,147	2,782	510,572	4,760	552	595,123
1932 ..	27,941	47,745	23,263	3,014	605,561	5,937	761	714,222
Total (b) 1851-1932	15,050	71,440	20,170	391	39,419	2,121	538	149,129

(a) Year ended 30th June.

(b) '000 omitted in each case.

3. **Changes in Relative Positions of States as Gold Producers.**—The figures in the table showing the value of gold raised will sufficiently explain the enormous increase in the population of Victoria during the period 1851 to 1861, when an average of over 40,000 persons reached the State each year. With the exception of the year 1889, when its output was surpassed by that of Queensland, Victoria maintained its position as the chief gold-producer for a period of forty-seven years, or up to 1898, when its production was outstripped by that of Western Australia, the latter State from this year onward contributing practically half, and so far as the last ten years are concerned nearly four-fifths of the entire yield of Australia. New South Wales occupied the second place on the list until 1874, when Queensland returns exceeded those of the parent State, and, with the exception of the years 1921, 1926 and 1930 to 1932, maintained this pre-eminence.

4. **Place of Australia in the World's Gold Production.**—In the table given below will be found the estimated value of the world's gold production, and the share of Australia therein in decennial periods since 1851 and during each of the last six years for which returns are available. The figures given in the table have been compiled chiefly from returns obtained directly by the Commonwealth Bureau of Census and Statistics from the gold-producing countries of the world.



## GOLD.—WORLD'S PRODUCTION.

Period.	World's Production of Gold.		Gold Produced in Australia.		Percentage of Australia on Total.
	£		£		%
1851-60 .. .. .	260,645,000	105,671,000	40.5		
1861-70 .. .. .	228,031,000	80,871,000	35.5		
1871-80 .. .. .	214,427,000	61,293,000	28.5		
1881-90 .. .. .	220,903,000	49,217,000	22.3		
1891-1900 .. .. .	436,421,000	89,999,000	20.6		
1901-10 .. .. .	777,696,000	142,009,000	18.3		
1911-20 .. .. .	908,537,000	76,240,000	8.4		
1921-30 .. .. .	823,212,000	26,348,000	3.2		
1926 .. .. .	82,684,000	2,214,000	2.7		
1927 .. .. .	82,567,000	2,159,000	2.6		
1928 .. .. .	83,829,000	1,944,000	2.3		
1929 .. .. .	83,312,000	1,814,000	2.2		
1930 .. .. .	88,490,000	1,982,000	2.2		
1931 .. .. .	136,538,000	3,564,000	2.6		

For the year 1931 the world's production of gold in fine ounces was 22,802,000, as compared with a return of 20,832,000 oz. fine in 1930, but the value per oz. fine in Australian currency for 1931 was taken as £5.988 as against an average of £4.248 for each of the preceding five years.

The value of the gold yield in the ten chief producing countries in each of the five years 1927 to 1931 is given in the table hereunder. Particulars of the quantity and value of the gold production for all countries for the ten years 1922-31 will be found in the Australian Production Bulletin issued by this Bureau.

## GOLD.—PRODUCTION, CHIEF COUNTRIES.

Country.	1927.	1928.	1929.	1930.	1931.
	£	£	£	£	£
Union of South Africa	42,998,000	43,982,000	44,229,000	45,520,000	65,135,000
United States .. .. .	8,993,000	9,110,000	8,736,000	8,922,000	13,256,000
Canada .. .. .	7,870,000	8,031,000	8,191,000	8,929,000	16,131,000
Russia .. .. .	4,507,000	5,097,000	4,248,000	6,090,000	10,185,000
Mexico .. .. .	3,081,000	2,970,000	2,769,000	2,848,000	3,730,000
Rhodesia .. .. .	2,470,000	2,447,000	2,382,000	2,358,000	3,242,000
Australia .. .. .	2,159,000	1,944,000	1,814,000	1,982,000	3,564,000
India .. .. .	1,632,000	1,597,000	1,546,000	1,398,000	1,979,000
Japan .. .. .	1,374,000	1,312,000	1,419,000	1,651,000	2,545,000
Gold Coast .. .. .	728,800	670,400	883,000	1,045,000	1,551,000

The next table shows the average yearly value in order of importance of the yield in the chief gold-producing countries for the decennium 1922-1931.

## GOLD.—AVERAGE ANNUAL PRODUCTION, CHIEF COUNTRIES, 1922 TO 1931.

Country.	Value.	Country.	Value.
	£		£
Union of South Africa .. .. .	44,282,500	Rhodesia .. .. .	2,673,800
United States .. .. .	10,123,700	Australia .. .. .	2,589,300
Canada .. .. .	8,245,600	India .. .. .	1,682,900
Russia .. .. .	4,562,700	Japan .. .. .	1,434,400
Mexico .. .. .	3,266,600		

The comparison has been restricted to countries where the average for the period is in excess of a million sterling.

5. **Employment in Gold Mining.**—The number of persons engaged in gold mining in each State in 1901 and in each of the last five years is shown in the following table :—

**GOLD MINING.—PERSONS EMPLOYED.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1901 ..	12,064	27,387	9,438	1,000	19,771	1,112	200	70,972
1927 ..	670	1,126	304	17	4,056	65	12	6,250
1928 ..	736	655	343	30	3,863	47	12	5,686
1929 ..	684	864	326	58	4,108	63	5	6,108
1930 ..	4,229	942	903	114	4,452	43	4	10,687
1931 ..	9,944	4,258	2,751	180	6,344	166	70	23,713

The heavy decline noticeable since 1901 is of course due to the exhaustion of accessible payable deposits and the failure to locate any considerable fresh sources of supply. As pointed out previously, the increase in number during the last two years was due to the higher price of the metal coupled with lack of other employment bringing about considerable accessions to the ranks of prospectors, particularly in New South Wales and Queensland where much attention was devoted to turning over old gold-fields. In Western Australia renewed activity took place at existing mines and in some cases abandoned mines were reopened. The treatment plant at the Wiluna Gold Mines Ltd. was put into commission early in the year, and the Company was dealing with about 26,000 tons of ore monthly.

6. **Bounty on Production.**—A reference to the bounty provided by the Commonwealth on gold production in Australia will be found in § 16. 1. hereinafter.

**§ 3. Platinum and Platinoid Metals.**

1. **Platinum.**—(i) *New South Wales.* The deposits at present worked in the State are situated in the Fifield division, near Parkes, and the production in 1931 amounted to 283 ozs., valued at £2,201 as compared with 155 ozs., valued at £1,073, in the preceding year, while the total production recorded to the end of 1931 amounted to 19,366 ozs., valued at £121,996. About 80 men were engaged in prospecting and fossicking in the Fifield area in 1931.

(ii) *Victoria.* In Gippsland the metal has been found in association with copper and 127 ozs. were produced in 1913, but there was no production in recent years.

(iii) *Queensland.* Platinum, associated with osmiridium, has been found in the beach sands between Southport and Currumbin, in creeks on the Russell gold-field near Innisfail, and in alluvial deposits on the Gympie gold-field, but no production has been recorded.

2. **Osmium, Iridium, etc.**—(i) *New South Wales.* Small quantities of osmium, iridium, and rhodium are found in various localities. Platinum, associated with iridium and osmium, has been found in the washings from the Aberfoil River, about 15 miles from Oban; on the beach sands of the northern coast; in the gem sand at Bingara, Mudgee, Bathurst, and other places. In some cases, as for example in the beach sands of Ballina, the osmiridium and other platinoid metals amount to as much as 40 per cent. of the platinum, or about 28 per cent. of the whole metallic content.

(ii) *Victoria.* In Victoria, iridosmine has been found near Foster, and at Waratah Range, South Gippsland.

(iii) *Tasmania.* For 1931 the yield of osmiridium was returned as 1,280 ozs., valued at £18,028, the quantity raised being about 327 ozs. more than in 1930. The greatest production recorded was for the year 1925, when over 3,365 ozs. valued at £103,570 were raised. The decrease in later years was due in large measure to the lower price coupled with a reduced demand. It is stated that one of the reasons for the decreased demand for the metal and the consequent fall in price, is that osmiridium itself is of no commercial value, the value being in the osmium and iridium extracted therefrom. The process of extraction is a particularly dangerous one, owing to the fact that osmium oxide, which is a deadly poison, is given off in a gaseous state. Some of the American firms have ceased producing on this account, and are using African ore containing platinum and iridium, the extraction of which is simpler and less hazardous.

#### § 4. Silver, Lead, and \*Zinc.

1. *Occurrence in Each State.*—Particulars regarding the occurrence of silver and associated metals in each State were given in Year Books, Nos. 1 to 5, but considerations of space precluded the repetition of this matter.

2. *Production.*—(i) *General.* The value of the production of silver, silver-lead and ore, and lead from each State during the five years ending 1931 is given hereunder :—

#### SILVER AND LEAD.—PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter. (a)	Australia.
	£	£	£	£	£	£	£	£
1927 ..	3,487,980	304	32,102	143	30,421	222,427	379	3,773,756
1928 ..	2,492,089	275	3,387	..	10,836	180,517	22	2,687,126
1929 ..	3,032,741	100	14,807	258	12,525	233,353	79	3,293,863
1930 ..	2,088,790	65	9,696	90	9,330	133,658	1,684	2,243,313
1931 ..	1,079,359	99	306,393	5	3,103	54,778	160	1,443,897

(a) Year ended 30th June.

(ii) *New South Wales.* The figures quoted above for New South Wales for the year 1931 include silver to the value of £3,151 and silver-lead ore and concentrates valued at £1,076,208. Since the closing down of the Sulphide Corporation's works in 1922 the silver (metal) is obtained chiefly in the refining of gold and copper ores, and there has been no production of lead (pig) in the State. It may be noted here that the bulk of the carbonate and siliceous ore from the Broken Hill field is sent for treatment by the Broken Hill Associated Smelters Proprietary Limited at Port Pirie in South Australia, while the remainder of the ore is concentrated on the field and the product is dispatched to Port Pirie for refining. Low prices coupled with increased costs of production were responsible for the decrease in values during the period dealt with. The improvement in 1929 as compared with 1928 was mainly due to an advance in the price of lead.

It must be understood that the totals for New South Wales in the above table represent the *net* value of the product (excluding zinc) of the silver-lead mines of the State. In explanation of the values thus given, it may be noted that the metallic contents of the larger portion of the output from the silver-lead mines in the State are extracted outside New South Wales, and the Mines Department considers, therefore, that the State should not take full credit for the finished product. The real importance of the State as a producer of silver, lead, and zinc is thus to some extent lost sight of. The next table, however, which indicates the quantity of these materials locally produced, and the contents by assay of concentrates exported during the last five years, will show, as

\* Further details in regard to zinc are given in § 7 hereinafter.

regards New South Wales, the estimated total production and the value of the metal contents of all ore mined :—

## SILVER-LEAD MINES.—NEW SOUTH WALES, TOTAL PRODUCTION.

Year.	Metal Produced within Australia.				Contents of Concentrates Exported.			
	Silver.	Lead.	Zinc.	Value.	Silver.	Lead.	Zinc.	Value.
	ozs. fine.	tons.	tons.	£	ozs. fine.	tons.	tons.	£
1927 ..	7,901,861	156,306	42,757	5,955,009	2,339,382	26,709	115,123	1,467,235
1928 ..	7,068,964	151,475	44,004	5,256,649	1,259,931	11,372	94,987	835,620
1929 ..	7,619,884	165,364	46,163	5,918,014	835,997	7,009	76,619	734,261
1930 ..	7,876,894	162,703	53,958	4,579,412	844,188	14,044	87,913	911,724
1931 ..	6,177,863	129,819	53,832	2,995,029	460,958	13,405	43,629	257,705

The figures given above are quoted on the authority of the Mines Department of New South Wales. Accurate details in regard to gold, copper, and antimony contained in the silver-lead ores are not available. Cadmium was first extracted in 1922 at Risdon, in Tasmania, and in 1931 the amount won from ores of New South Wales origin was given as 199 tons, valued at £45,514. As pointed out previously, credit for the value is not taken in the New South Wales returns, the value accruing to the State being taken as that of the declared value of the concentrates at the time of their dispatch

(a) *Broken Hill.* Broken Hill, in New South Wales, is at present the chief centre of silver production in Australia. A description of the silver-bearing area in this district is given in earlier issues of the Year Book. (See No. 4, page 506.)

Although the returns are not complete in all cases, the following table relating to the companies controlling the principal mines at Broken Hill will give some idea of the richness of the field :—

## SILVER.—BROKEN HILL RETURNS TO END OF 1931.

Mine.	Value of Output to end of 1931.	Dividends and Bonuses Paid to end of 1931.
	£	£
Broken Hill Proprietary Co. Ltd. .. ..	53,324,074	13,655,247
Broken Hill Proprietary Block 14 Co. Ltd. .. ..	4,749,915	670,160
British-Australian Broken Hill Co. Ltd. .. ..	5,858,998	821,280
Broken Hill Proprietary Block 10 Co. Ltd. .. ..	4,946,989	1,432,500
Sulphide Corporation Ltd. (Central and Junction Mines)	26,811,642	3,466,875
Broken Hill South Ltd. .. ..	22,209,320	5,075,000
North Broken Hill Ltd. .. ..	17,718,641	5,272,690
Broken Hill Junction Lead Mining Co. .. ..	1,185,058	87,500
Junction North Broken Hill Mine .. ..	3,511,940	171,431
The Zinc Corporation Ltd. .. ..	9,387,239	3,475,788
Barrier South Ltd. .. ..	151,517	50,000
Totals .. ..	149,855,333	34,178,471

The returns relating to dividends and bonuses paid are exclusive of £1,744,000 representing the nominal value of shares in Block 14, British, and Block 10 companies, allotted to shareholders of Broken Hill Proprietary Company. If the output of the companies which were, prior to 1931, engaged in treating the tailings, etc., be taken into consideration, the totals for output and dividends shown in the table would be increased to about 157 millions and 37 millions respectively. The authorized capital

of the various companies amounted to £6,448,000. In 1931 the increase in dividends and bonuses paid amounted to £203,000 shared in by four only of the Companies included above, i.e., Zinc Corporation, £83,000; North Broken Hill, £70,000; Sulphide Corporation, £30,000; and Broken Hill South, £20,000.

(b) *Other Areas.* Silver is found in various other localities in New South Wales, but the production therefrom in 1931 was unimportant.

(iii) *Victoria.* The silver produced in 1931 amounted to 1,512 ozs., valued at £99, and was obtained in the refining of gold at the Melbourne Mint.

(iv) *Queensland.* Owing to the initiation of smelting operations at Mt. Isa, the yields from both silver and lead in Queensland showed a large increase in 1931 as compared with 1930. In the case of silver, the value rose from £5,527 in 1930 to nearly £76,000 in 1931, while lead increased from £4,000 in 1930 to about £231,000 in 1931. The low prices current for the metals in 1931 were, however, responsible for a decreased production from the Herberton and Etheridge fields.

(v) *South Australia.* Silver ore has been discovered at Miltalie and Poonana, in the Franklin Harbour district, also at Mount Malvern and Olivaster, near Rapid Bay, and in the vicinity of Blinman and Farina, at Baratta, and elsewhere. Production in 1931 was, however, trifling.

(vi) *Western Australia.* The quantity of silver obtained as a by-product and exported in 1931 was 43,739 oz., valued at £2,833. In addition, 24 tons of lead and silver-lead ore and concentrates valued at £270 were exported.

(vii) *Tasmania.* The silver produced in 1931 amounted to 391,732 oz., valued at £25,754, and the lead to 2,189 tons, valued at £29,024. About 243,000 oz. of the total silver output were contained in silver-lead, while 148,000 oz. were contained in the blister copper produced by the Mount Lyell Co.

(viii) *Northern Territory.* A rich deposit of silver-lead and copper ore was located in 1930 at the Jervois Range about 200 miles east of Alice Springs. Development is, however, hindered by the low price of metals coupled with transport difficulties and lack of permanent water. Rich sulphides have been found at Barrow Creek. During the year a small quantity of silver-lead ore was raised in the Mt. Gardner district. There was no record of production in 1931.

3. *World's Production.*—The world's production of silver during the last five years for which particulars are available is estimated to have been as follows :—

#### SILVER.—WORLD'S PRODUCTION.

Total.	1927.	1928.	1929.	1930.	1931.
World's production in 1,000 fine ozs. . .	251,232	257,273	261,715	248,157	195,204

The share of Australia in the world's silver production in 1919 was estimated at 7,800,000 oz., or about  $4\frac{1}{2}$  per cent. of the total production, but in 1921, owing to the cessation of operations at the Broken Hill field, the total local extraction fell to 4,573,000 oz., and the estimated silver contents of the ores, bullion, and concentrates exported to 732,000 oz., the total being a little over 3 per cent. of the world's production. For 1931 local extraction was set down as 7,350,000 oz., and exports as 1,505,000 oz., the total being equivalent to about  $4\frac{1}{2}$  per cent. on the production for the world. The figures for the world's production are given on the authority of *The Mineral Industry*.

Arranged in order of importance the estimated yields in 1931 from the chief silver producing countries were as follow :—

## SILVER.—PRODUCTION, CHIEF COUNTRIES, 1931.

Country.	Production.	Country.	Production.
	Fine ozs. (‘000 omitted.)		Fine ozs. (‘000 omitted.)
Mexico .. ..	86,064	Japan .. ..	5,500
United States .. ..	30,968	Central America .. ..	3,200
Canada .. ..	20,558	East Indies .. ..	2,000
South America .. ..	18,000	Transvaal .. ..	1,063
Europe .. ..	11,000	China .. ..	200
Australia .. ..	8,855	Congo .. ..	181
British India .. ..	7,000	Rhodesia .. ..	70

4. Prices of Silver, Lead, and Zinc.—In view of the close association in Australia, particularly in New South Wales, of ores containing these metals, the average prices of each metal during the last five years have been incorporated in the table hereunder :—

## PRICES OF SILVER, LEAD, AND SPELTER.

Metal.	1928.	1929.	1930.	1931.	1932.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Silver (Standard) per oz.	0 2 2.75	0 2 0.46	0 1 5.66	0 1 2.60	0 1 5.84
Lead .. per ton	21 3 4	23 4 11	18 1 5	13 0 9	12 0 6
Spelter per ton	25 5 5	24 17 8	16 16 9	12 8 11	13 13 10

The above figures are quoted on the authority of the Mines Department of New South Wales.

5. Employment in Silver, Lead and Zinc Mining.—The number of persons employed in mining for these metals during each of the last five years is given below :—

## SILVER MINING.—PERSONS EMPLOYED.

Year.	N.S.W. (a)	Q'land.	S. Aust.	W. Aust. (b)	Tasmania (a)	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1927 ..	5,833	277	1	51	718	..	(c) 6,882
1928 ..	4,666	282	..	12	627	..	(d) 5,589
1929 ..	5,001	447	7	31	540	2	6,028
1930 ..	4,489	474	2	..	231	35	5,231
1931 ..	2,812	351	2	15	299	4	3,483

(a) Silver, lead, and zinc. (b) Principally lead and silver-lead ore. (c) Including 2 in Victoria. (d) Including 2 in Victoria.

With the development of the great silver-lead field at Mount Isa, in Queensland, it is expected that the employment returns for that State will in future assume considerable importance.

## § 5. Copper.

1. Production.—The production of copper in the various States has been influenced considerably by the ruling prices, which have undergone extraordinary fluctuations. The value of the local production as reported and credited to the mineral industry for the years 1927 to 1931 is shown hereunder. Quantities for Australia as a whole as returned by the several State Mines Departments are appended on separate lines at the foot of the table.

## COPPER.—PRODUCTION AUSTRALIA.

State.		1927.	1928.	1929.	1930.	1931.
		£	£	£	£	£
New South Wales .. ..	..	12,655	3,497	14,183	8,347	23,948
Queensland .. ..	..	218,842	177,043	294,188	174,075	126,342
South Australia .. ..	..	12,452	13,321	22,982	6,966	934
Western Australia .. ..	..	101	765	2,778	102	..
Tasmania .. ..	..	362,988	444,802	740,985	620,578	416,309
Northern Territory (a)	..	..	..	..	589	25
<b>Australia .. ..</b>	<b>..</b>	<b>607,038</b>	<b>639,428</b>	<b>61,075,146</b>	<b>810,657</b>	<b>567,558</b>
Ingot, Matte, etc. ..	tons	9,940	9,455	12,613	13,063	13,453
Ore .. ..	tons	192	100	416	251	79

(a) Year ended 30th June.

(b) Includes £30, value of production in Victoria.

The total value of the production in 1920 was £2,658,000, and the heavy fall during recent years was due to the low price of the metal preventing the profitable working of many of the copper mines throughout Australia. Production in 1931 was again depressed by the fall in price.

2. Sources of Production.—(i) *New South Wales.* The depression in this branch of the mining industry during the last few years is likely to continue, unless copper appreciates in value, and less costly methods of production are evolved. For the year 1917 the yield was valued at upwards of £814,000, in 1918 it was returned at £697,000, but in 1928 it had declined to under £4,000. The rise in price during 1929 led to a moderate increase in activity. The small production in 1931 was obtained principally from the treatment of other than copper ores, the output for the year including 485 tons of electrolytic copper valued at £23,298, and 56 tons of ore valued at £650 exported overseas.

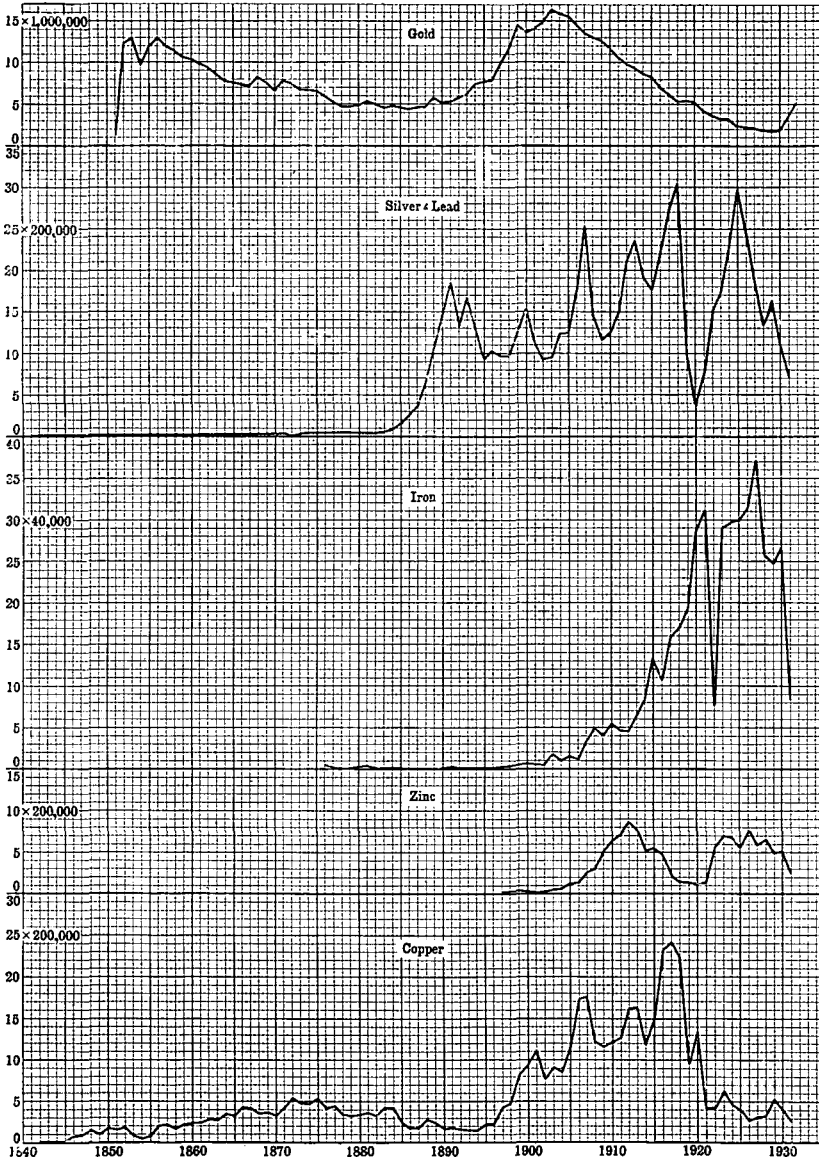
(ii) *Queensland.* The yield in this State amounted in 1931 to 3,135 tons valued at £126,342, and shows a serious decline as compared with 1920 when nearly 16,000 tons valued at £1,552,000 were raised. The falling-off in the yield in recent years was due partly to the low prices realized for copper and partly to old-fashioned plant and methods of treatment. Returns from the chief producing areas in 1931 were as follow :—Cloncurry, 2,316 tons, £93,357; Herberton, 595 tons, £23,944; and Mount Morgan, 114 tons, £4,594.

(iii) *South Australia.* Taking the entire period over which production extended, the yield of copper in South Australia easily outstrips that of any other State. In recent years, however, Tasmania, Queensland, and New South Wales have come to the front as copper producers, as shown in the table above. Deposits of copper ore are found over a large portion of South Australia. A short account of the discovery, etc., of some of the principal mining areas, such as Kapunda, Burra Burra, Wallaroo, and Moonta, was given in earlier issues of the Official Year Book. Increased attention is being given to the possibility of making fresh discoveries in the Moonta and Wallaroo copper field. Opened in 1860, this field worked continuously until 1923, and up to the close of 1931 had produced copper to the value of £20,500,000. In 1930 the production fell to 94 tons, valued at £6,966, the lowest return since the year 1845, and in 1931 the value dwindled to under £1,000. Owing to the low price of the metal a considerable tonnage of ore is held in reserve at Moonta.

(iv) *Western Australia.* No production was reported in this State for the year 1931.

(v) *Tasmania.* The quantity of copper produced in Tasmania during 1931 was 9,833 tons, valued at £416,309, the whole of the production being due to the Mount Lyell Mining and Railway Co. Ltd. This Company treated 52,245 tons of ore and concentrates and produced 9,913 tons of blister copper, containing copper, 9,833 tons; silver, 148,782 ozs.; and gold, 3,796 ozs., the whole being valued at £443,000.

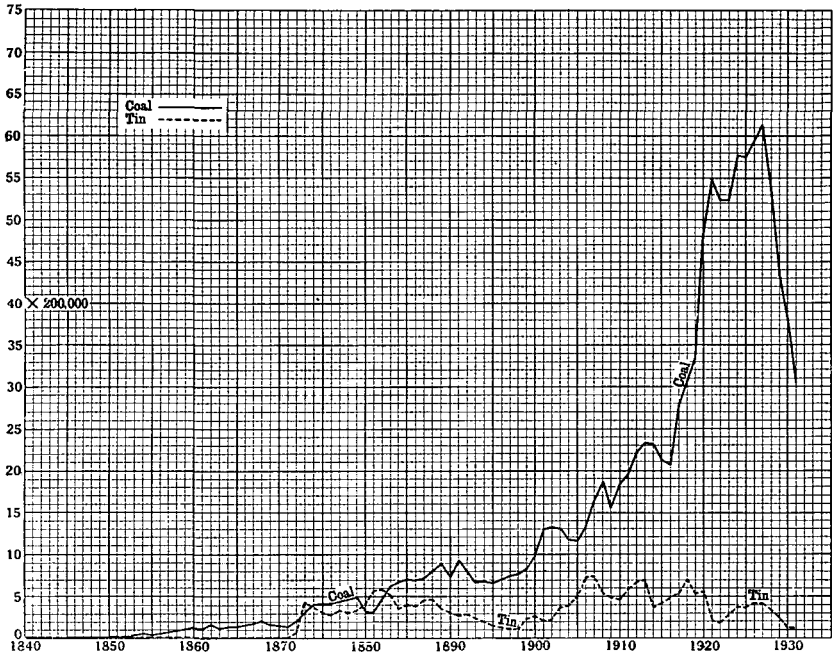
## VALUES OF THE PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1840 TO 1931.



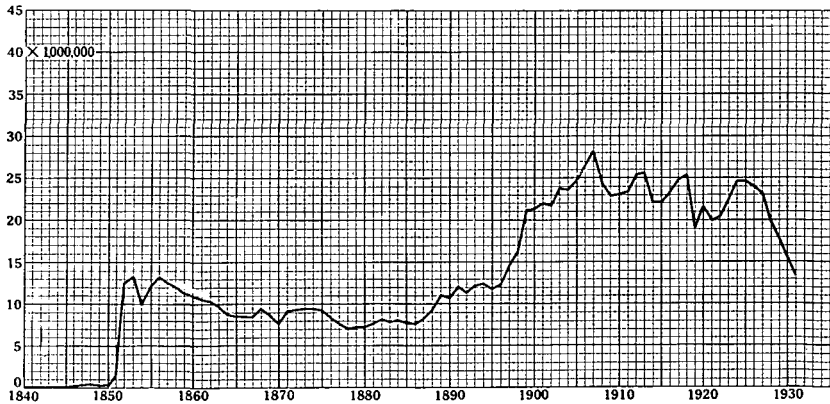
EXPLANATION.—The values shown are those of the total Australian production of certain of the most important minerals in successive years from 1840 onwards.

The base of each small square represents an interval of one year, and the vertical height represents in the case of gold £1,000,000; in the case of silver and lead, zinc and copper £200,000; and in the case of iron £40,000.



VALUES OF PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1840 TO 1931—*continued.*

Total Mineral Production



EXPLANATION.—The values shown are those of the total Australian production of certain of the most important minerals in successive years from 1840 onwards.

The base of each small square represents an interval of one year, and the vertical height represents in the case of coal and tin £200,000, and in the case of total mineral production £1,000,000.

(vi) *Northern Territory.* Copper has been found at various places, but lack of capital and difficulty of transport prevent the development of the deposits. The production in 1931 was obtained from an old mine dump near Settlement Creek.

3. *Prices.*—The great variation in price that the metal has undergone is shown in the following table, which gives the average price in London and New York during each of the last five years. The figures are given on the authority of the *The Mineral Industry* :—

## COPPER.—PRICES.

Year.				Average London Price per Ton Standard Copper.	Average New York Price in Cents per lb. Electrolytic Copper.
				£	Cents.
1927	..	..	..	55.65	12.92
1928	..	..	..	63.70	14.57
1929	..	..	..	75.42	18.11
1930	..	..	..	54.62	12.98
1931	..	..	..	38.34	8.12

As evidence of the tremendous variation in the price of copper it may be noted that in December, 1916, the average London price of standard copper was £145.32 per ton, while in June, 1927, it was quoted at £54.03. In 1930 the highest average was £71.47, recorded in January, but in October the price had fallen as low as £43.03. The highest average in 1931 was £45.37 for February, but thenceforward the price dropped to the very low figure of £31.50 in September, rising thereafter in the closing months of the year to £38.27 in December. In 1932 the average fell to the very low figure of £31.73.

4. *World's Production of Copper.*—The world's production of copper during the five years 1927–1931 is estimated to have been as follows. The figures for foreign countries have been taken from the latest issue of *The Mineral Industry* :—

## COPPER.—WORLD'S PRODUCTION.

Year.	1927.	1928.	1929.	1930.	1931.
World's production—tons ..	1,502,000	1,689,000	1,899,000	1,562,000	1,341,000

The yields from the chief copper-producing countries in 1931 were as follow :—

## COPPER.—PRODUCTION, CHIEF COUNTRIES, 1931.

Country.			Production.	Country.			Production.
			Tons.				Tons.
United States	..	..	468,400	Peru	..	..	43,600
Chile	..	..	221,400	Spain and Portugal	..	..	32,900
Africa	..	..	151,200	Germany	..	..	27,600
Canada	..	..	130,000	Yugoslavia	..	..	24,000
Japan	..	..	75,200	Australia	..	..	15,700
Mexico	..	..	51,900	Cuba	..	..	13,200
Russia	..	..	47,200	Norway	..	..	9,600

During the five years ending in 1931 the share of the United States in the world's copper production amounted to over 45 per cent.

The Australian production in 1931 amounted to a little over 1 per cent. of the total.

5. **Employment in Copper Mining.**—The number of persons employed in copper mining during each of the last five years was as follows:—

**COPPER MINING.—PERSONS EMPLOYED.**

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1927 .. ..	29	271	20	9	760	..	1,089
1928 .. ..	3	517	14	10	1,181	..	1,725
1929 .. ..	32	366	74	9	1,307	..	(a)1,789
1930 .. ..	33	376	58	3	1,333	6	1,809
1931 .. ..	35	287	61	..	1,442	3	1,828

(a) Including 1 in Victoria.

In 1917, over 9,000 persons were engaged in copper mining.

**§ 6. Tin.**

1. **Production.**—The development of tin mining is, of course, largely dependent on the price realized for the metal, and, as in the case of copper, the production has been subject to somewhat violent fluctuations. The table below shows the value of the production as reported to the Mines Departments in each of the States during the five years 1927 to 1931. A separate line is appended showing the recorded tonnages for Australia during each of the specified years.

**TIN.—PRODUCTION, AUSTRALIA.**

State.	1927.	1928.	1929.	1930.	1931.
	£	£	£	£	£
New South Wales .. ..	287,539	231,843	191,199	84,800	103,111
Victoria .. ..	11,454	12,954	3,545	..	440
Queensland .. ..	193,774	134,727	114,518	49,708	35,744
Western Australia .. ..	13,316	15,002	13,432	10,608	3,945
Tasmania .. ..	317,593	258,676	130,014	69,592	70,634
Northern Territory (a) ..	18,754	10,828	6,958	3,345	2,331
<b>Total .. ..</b>	<b>842,430</b>	<b>664,030</b>	<b>459,666</b>	<b>218,053</b>	<b>216,205</b>
<b>Tonnage .. ..</b>	<b>3,507</b>	<b>3,425</b>	<b>2,723</b>	<b>1,798</b>	<b>1,938</b>

(a) Year ending 30th June.

In 1923, the average London price of tin was £202 3s. per ton, while in 1926 it had advanced to £291 2s. per ton. There was a decline in the average for 1927 to £289 1s. 5d. per ton, although in March of that year the price was £313 9s. 5d. The sharp decline in values to £227 4s. 8d. in 1928, to £203 19s. 4d., in 1929, and the tremendous drop to £141 19s. in 1930, are reflected in the decreased production for those years. In December, 1930, the price had fallen to £111 13s. per ton. Early in May, 1931, the price fell as low as £99 15s. The average for the year 1932 was £135 18s. 10d.

2. **Sources of Production.**—(i) *New South Wales.* The production in 1931 was estimated at 777 tons of ingots valued at £101,761, and 17 tons of ore and concentrates valued at £1,350. A large proportion of the output in this State is obtained in normal years by dredging, principally in the New England district, the quantity so won in 1931 being 200 tons, valued at £17,230. Owing to the low price of the metal, however, very

few of the dredges operated continuously. The increase in production in 1931 was chiefly due to improved returns from two of the larger mines at Ardlethan, and greater output by fossickers at Tingha, Emmaville, and elsewhere.

(ii) *Victoria*. The production in 1929 was obtained by dredging, the Cock's Pioneer Gold and Tin Co. in the Beechworth district contributing 14 tons valued at £2,000, the balance mainly coming from Toora in Gippsland. No production was recorded in 1930, and the output for 1931 was trifling.

(iii) *Queensland*. The chief producing districts in Queensland during 1931 were Herberton, 329 tons, valued at £24,406; Cooktown, 63 tons, £4,216; Stanthorpe, 43 tons, £6,396; Chillagoe, 25 tons, £1,914; and Kangaroo Hills, 11 tons, £848. The total production was the lowest recorded.

(iv) *Western Australia*. The export of tin from the State in 1931 amounted to 39 tons, valued at £3,945. The small quantity won during the year was obtained in the Pilbara field.

(v) *Tasmania*. During 1931 the output amounted to 589 tons of metallic tin, valued at £70,634, the second lowest return over a long series of years. Operations at Mount Bischoff, the principal producer, were mainly carried on by tributers.

(vi) *Northern Territory*. The Maranboy field was the chief contributor to the output of tin in 1931. Small quantities were raised also at Hayes Creek, Hidden Valley, and Mt. Tomler.

3. *World's Production*.—According to *The Mineral Industry* the world's production of tin during each of the last five years was as follows :—

#### TIN.—WORLD'S PRODUCTION.

1927.	1928.	1929.	1930.	1931.
Tons. 157,000	Tons. 178,000	Tons. 190,600	Tons. 173,100	Tons. 147,200

The comparatively small total for the year 1931 was partly due to the low price of the metal and partly to the restriction in output agreed upon between the chief producing countries.

The yields from the chief producing countries in 1931 were as follow :—

#### TIN.—PRODUCTION, CHIEF COUNTRIES, 1931.

Country.	Production.	Country.	Production.
	Tons.		Tons.
Federated Malay States ..	51,300	<b>Australia</b> .. ..	<b>1,800</b>
Bolivia .. ..	30,900	Unfederated Malay States	1,400
Netherlands East Indies ..	30,100	Indo-China .. ..	800
Siam .. ..	12,100	Spain and Portugal .. ..	700
Nigeria .. ..	7,300	Great Britain .. ..	600
China .. ..	6,500	South Africa .. ..	400
Burma .. ..	2,400		

Australia's share of the world's tin production, estimated at 147,000 tons, would appear therefore to be a little over 1.2 per cent.

4. *Prices*.—The average price of the metal in the London market for the years 1927 to 1932 was as follows :—

## TIN.—PRICES.

Year.			Average Price Per Ton.	Year.			Average Price per Ton.
			£ s. d.				£ s. d.
1927	..	..	289 1 5	1930	..	..	141 19 1
1928	..	..	227 4 8	1931	..	..	118 9 1
1929	..	..	203 18 10	1932	..	..	135 18 10

Early in May, 1931, the price for a time was as low as £99 15s., but with the creation of the International Tin Pool there was a recovery to £119 per ton. In August the average was £114 19s. 1d., and the price rose thereafter to £138 19s. 7d. in December.

5. **Employment in Tin Mining.**—The number of persons employed in tin mining during the last five years is shown below :—

## TIN MINING.—PERSONS EMPLOYED.

Year.	N.S.W.	Victoria. (a)	Q'land.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1927	1,430	42	906	106	1,230	95	3,809
1928	1,275	118	954	119	1,113	95	3,674
1929	1,008	49	750	49	810	66	2,732
1930	870	..	579	30	443	60	1,982
1931	994	3	548	17	625	29	2,216

(a) The tin produced in Victoria was raised by a dredging company operating primarily for gold.

## § 7. Zinc.

1. **Production.**—(i) *New South Wales.* (a) *Values Assigned.* The production of zinciferous concentrates is chiefly confined to the Broken Hill district of New South Wales, where zincblende forms one of the chief constituents in the enormous deposits of sulphide ores. During the earlier years of mining activity on this field a considerable amount of zinc was left unrecovered in tailings, but from 1909 onwards improved methods of treatment resulted in the profitable extraction of the zinc contents of the accumulations at the various mines.

As the metallic contents of the bulk of the concentrates, etc., produced in the Broken Hill district are extracted outside New South Wales, the mineral industry of that State is not credited by the Mines Department with the value of the finished product. During 1931 the zinc concentrates actually exported amounted to 220,982 tons, valued at £512,795. Portion of the zinc concentrates produced is treated at Risdon in Tasmania, and the balance is exported overseas.

(b) *Local and Foreign Extraction.* A statement of the quantity of zinc extracted in Australia and the estimated zinc contents of concentrates exported overseas during the five years 1926 to 1930 will be found in § 17 hereinafter.

(ii) *Queensland.* The total production of zinc in 1926 was returned at 200 tons, valued at £6,827, produced from ores raised in the Chillagoe area, but there was no record of production in later years.

(iii) *South Australia.* Zinc is known to exist in various localities in South Australia, but there has been no production during recent years.

(iv) *Tasmania.* During the year 1931 there was no production of zinc or cadmium from local ores.

The Electrolytic Zinc Co. at Risdon operated on raw materials obtained wholly from Broken Hill in New South Wales. Production in 1931 amounted to 53,832 tons of slab zinc, a decrease of 1,000 tons on the output for the preceding year. Production from the Mount Read-Rosebery group of mines was in abeyance owing to the low prices of zinc and lead.

2. **World's Production.**—According to *The Mineral Industry* the world's production of zinc during the five years 1927–31 was as follows :—

## ZINC.—WORLD'S PRODUCTION.

1927.	1928.	1929.	1930.	1931.
Tons. 1,307,200	Tons. 1,399,000	Tons. 1,447,000	Tons. 1,390,000	Tons. 997,000

The yields from the chief producing countries in 1931 were as given hereunder, the figures referring to slab zinc produced in the various countries, unallocated according to the source of the ore. In common with the other industrial metals zinc suffered in 1931 from a combination of low prices and reduced demand. Production was also to a certain extent curtailed through the operation of the zinc cartel. It is stated that one of the aims of the cartel is to make future production accord more reasonably with consumption.

## ZINC.—PRODUCTION, CHIEF COUNTRIES, 1931.

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States .. ..	268,500	Mexico .. ..	34,700
Poland (a) .. ..	137,400	Japan .. ..	21,900
Belgium .. ..	136,300	Great Britain .. ..	21,200
Canada .. ..	105,700	Netherlands .. ..	19,000
<b>Australia .. ..</b>	<b>96,300</b>	Italy .. ..	16,000
France .. ..	61,900	Soviet Union .. ..	11,200
Germany .. ..	44,600	Spain .. ..	9,900
Norway .. ..	41,300	Czechoslovakia .. ..	9,000

(a) Including Upper Silesia.

The figures for Australia have been taken from returns supplied by the Australian Mines and Metals Association.

3. **Prices.**—Information regarding prices of zinc will be found in the table in § 4.5, *ante*.

## § 8. Iron.

1. **General.**—The fact that iron ore is widely distributed in Australia had long been known, and extensive deposits have been discovered from time to time at various places throughout the States, but the utilization of these deposits for the production of iron and steel is, at present, confined to New South Wales.

2. **Production.**—(i) *New South Wales.* The production from local ores only in 1929 amounted to 3,911 tons, valued at £17,600, but there was no production from this source recorded subsequently, as the smelters now obtain their ore from places outside the State.

The figures quoted do not, of course, represent the total production of pig iron in New South Wales, since a considerable quantity of ore raised in South Australia, and credited therefore to the mineral returns of that State, is treated in New South Wales. A quantity of iron oxide is purchased by the various gasworks for use in purifying gas, and is also to some extent employed as a pigment, and in paper manufacture, and the output in New South Wales being drawn chiefly from the deposits in the Port Macquarie Division. During 1931 the iron oxide raised amounted to 3,665 tons, valued at £2,125.

(ii) *South Australia.* The production from the deposits worked by the Broken Hill Pty. Co. Ltd., at Iron Knob, and at Middlebank reached its maximum in 1930, the ore raised amounting to over 928,000 tons, valued at £1,068,000. In 1931, however, the output fell to 289,179 tons, valued at £332,556.

(iii) *Tasmania.* In 1931 about 500 tons of iron pyrites valued at £250 were produced the last recorded previous production being for the year 1923, when nearly 12,000 tons valued at £27,000 were raised. There has been no production of iron ore since the year 1908.

(iv) *Other States.* Reference to the iron ore deposits in the other States will be found in preceding issues of the Official Year Book (see No. 22, page 779).

3. **Iron and Steel Bounties.**—During the year 1931-32 the bounties paid under the Iron and Steel Products Bounty Act on articles manufactured from locally produced materials were as follow :—wire-netting, £6,334 ; traction engines, £1,058.

4. **World's Production of Iron and Steel.**—(i) *General.* The Australian production of iron and steel at present forms a very small proportion of the world's output. According to *The Mineral Industry*, the world's production of each commodity in the years specified for the principal countries was as follows :—

**PIG IRON AND STEEL.—WORLD'S PRODUCTION.**

Country.	Pig Iron.			Steel Ingots and Castings.		
	1929.	1930.	1931.	1929.	1930.	1931.
	Thousands of Tons.			Thousands of Tons.		
United States .. .. .	42,614	31,752	18,426	56,433	40,699	25,429
Germany .. .. .	13,401	9,694	6,063	16,246	11,539	8,291
France .. .. .	10,439	10,100	8,217	9,666	9,402	7,809
Saar Territory .. .. .	2,088	1,884	1,515	2,209	1,935	1,538
Belgium .. .. .	3,970	3,403	3,145	4,039	3,370	3,074
Luxemburg .. .. .	2,906	2,473	2,021	2,702	2,269	2,004
Austria .. .. .	450	287	145	630	468	322
Italy .. .. .	678	534	509	2,115	1,774	1,453
Spain .. .. .	709	650	500	929	850	750
Czechoslovakia .. .. .	1,643	1,572	1,165	2,145	1,984	1,526
Poland .. .. .	704	478	347	1,377	1,237	1,037
Sweden .. .. .	490	457	388	694	603	546
Russia .. .. .	4,018	4,969	4,900	4,723	5,552	5,400
China .. .. .	250	400	350	50	200	150
Japan .. .. .	1,750	1,400	1,450	2,100	1,750	1,600
United Kingdom .. .. .	7,580	6,197	3,758	9,655	7,298	5,179
India .. .. .	1,348	703	950	580	619	625
Canada .. .. .	1,080	814	420	1,380	1,012	638
<b>Australia .. .. .</b>	<b>333</b>	<b>440</b>	<b>380</b>	<b>348</b>	<b>420</b>	<b>150</b>
<b>Total—All Countries</b>	<b>96,263</b>	<b>78,942</b>	<b>55,209</b>	<b>118,208</b>	<b>93,430</b>	<b>67,871</b>

The figures for Japan include Manchuria and Korea. Production of both iron and steel improved somewhat in 1930 in Australia, the decline in the previous year being due principally to shortage in fuel owing to industrial disturbances on the coal-fields.

(ii) *Australia.* The table below, which is also given on the authority of *The Mineral Industry*, shows the estimated production of pig iron and steel ingots and castings in Australia during each of the last ten years for which particulars are available.

**PIG IRON AND STEEL.—AUSTRALIAN PRODUCTION.**

Year.	Pig Iron.	Steel.	Year.	Pig Iron.	Steel.
	Thousands of Tons.			Thousands of Tons.	
1922 ..	84	220	1927 ..	410	420
1923 ..	330	200	1928 ..	420	439
1924 ..	416	306	1929 ..	333	348
1925 ..	439	351	1930 ..	440	420
1926 ..	450	360	1931 ..	380	150

The principal producers in Australia are the Broken Hill Proprietary and the Australian Iron and Steel Co., the former situated at Newcastle and the latter at Port Kembla in New South Wales.

**§ 9. Other Metallic Minerals.**

Detailed information in regard to the occurrence and production of other metallic minerals in each of the States will be found in Official Year Book No. 22, and preceding issues.

**§ 10. Coal.**

**i. Production in each State.**—An account of the discovery of coal in each State will be found in preceding issues of the Year Book. (See No. 3, pp. 515-6.) The quantity and value of the production in each State and in Australia during the years specified are given in the table hereunder :—

**COAL.—PRODUCTION, AUSTRALIA.**

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>QUANTITY.</b>							
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1913 ..	10,414,165	593,912	1,037,944	..	313,818	55,043	12,414,882
1921 ..	10,793,387	514,859	954,763	..	468,817	66,476	12,798,302
1927 ..	11,126,114	684,245	1,099,040	..	501,505	112,056	13,522,960
1928 ..	9,448,197	658,323	1,076,340	..	528,420	128,500	11,839,780
1929 ..	7,617,736	703,828	1,368,745	..	544,719	130,291	10,365,319
1930 ..	7,093,055	703,487	1,094,676	..	501,425	138,716	9,531,359
1931 ..	6,432,382	571,342	841,308	..	432,400	123,828	8,401,260
<b>VALUE.</b>							
	£	£	£	£	£	£	£
1913 ..	3,770,375	274,371	403,767	..	153,614	25,367	4,627,494
1921 ..	9,078,388	603,323	831,483	..	407,117	63,446	10,983,757
1927 ..	9,782,002	762,530	987,465	..	407,967	99,802	12,039,766
1928 ..	8,263,729	731,015	971,690	..	420,145	106,558	10,493,137
1929 ..	5,952,720	813,370	1,199,599	..	426,706	105,877	8,498,272
1930 ..	5,193,032	807,699	952,856	..	394,758	110,253	7,458,598
1931 ..	4,607,343	362,284	699,926	..	336,178	98,004	6,103,735

(a) Exclusive of brown coal, shown in next table.



The figures for Victoria quoted before are exclusive of brown coal, the quantity and value of which for the years specified were as follow :—

**BROWN COAL.—PRODUCTION, VICTORIA.**

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 .. ..	2,984	569	1928 .. ..	1,591,858	202,393
1921 .. ..	79,224	31,074	1929 .. ..	1,741,176	178,052
1926 .. ..	957,935	188,899	1930 .. ..	1,831,507	173,713
1927 .. ..	1,455,482	220,003	1931 .. ..	2,194,453	251,511

2. **Production Per Employee.**—The production per employee for New South Wales and for Australia as a whole is shown in the appended table.

**COAL.—PRODUCTION PER EMPLOYEE.**

Year.	Coal Production per Employee.		Year.	Coal Production per Employee.	
	New South Wales.	Australia.		New South Wales.	Australia.
	Tons.	Tons.		Tons.	Tons.
1913 .. ..	550	530	1928 .. ..	440	490
1921 .. ..	500	480	1929 .. ..	520	580
1926 .. ..	440	440	1930 .. ..	430	500
1927 .. ..	450	480	1931 .. ..	410	497

The averages for Australia include employment and production in connexion with brown coal.

3. **Distribution and Production of Coal in each State.**—(i) *New South Wales.* Estimates of the quantity of merchantable coal available in the deposits in each State were given in preceding issues of the Official Year Book (see No. 20, pp. 752 *et seq.*).

The coal from the various districts differs considerably in quality—that from the Northern district being especially suitable for gas-making and household purposes, while the product of the Southern (Illawarra) and Western (Lithgow) is an excellent steaming coal. At the present time the Greta coal seams are being extensively worked between West Maitland and Cessnock, and this stretch of country, covering a distance of 15 miles, is now the most important coal-mining district in Australasia.

The table hereunder gives the yields in each of the three districts during the five years 1927 to 1931 :—

**COAL.—PRODUCTION IN DISTRICTS, NEW SOUTH WALES.**

District.	1927.	1928.	1929.	1930.	1931.
	Tons.	Tons.	Tons.	Tons.	Tons.
Northern .. ..	7,145,116	5,978,480	3,019,693	3,715,805	4,161,798
Southern .. ..	2,155,461	1,817,225	2,339,837	1,529,674	981,904
Western .. ..	1,825,537	1,652,492	2,258,206	1,847,576	1,288,620
Total .. ..	11,126,114	9,448,197	7,617,736	7,093,055	6,432,382

The depression in industry is reflected in the decreased production, and the output for 1931 was the lowest since 1904, and the value the least since 1917. Of the total quantity of coal won in New South Wales since the inception of operations to the end

of the year 1931, viz., 364 million tons, about 248 millions or 68 per cent. was obtained in the Northern District, 76 million tons or 21 per cent. came from the Southern District, and 40 million tons or 11 per cent. was contributed by the mines in the Western District.

(ii) *Victoria. (a) Black Coal.* The deposits of black coal in Victoria occur in the Jurassic system, the workable seams, of a thickness ranging from two feet three inches to six feet, being all in the Southern Gippsland district.

The output of black coal in Victoria during the last five years was as follows :—

**BLACK COAL.—PRODUCTION, VICTORIA.**

Year.	State Coal Mine.	Other Coal Mines.	Total Production.	Value.
	Tons.	Tons.	Tons.	£
1927 .. .. .	610,618	73,627	684,245	762,530
1928 .. .. .	600,931	57,392	658,323	731,015
1929 .. .. .	634,805	69,023	703,828	813,370
1930 .. .. .	637,261	66,226	703,487	807,699
1931 .. .. .	532,003	39,339	571,342	362,284

(b) *Brown Coal.—(1) General.* Some account of the brown coal deposits and of the operations of the State Electricity Commission in connexion therewith will be found in preceding Official Year Books (see No. 22, page 785), but it is not proposed to repeat this information in the present issue. The brown coal produced in Victoria was raised chiefly at the State Open Cut at Yallourn, where the output in 1931 amounted to 2,186,789 tons. There was no production during the year from the old open cut at Morwell.

(2) *Production of Briquettes.* The briquetting plant started operations in November, 1924, and the output for the year 1931-32 was 321,741 tons, an increase of nearly 96,000 tons on the total for the preceding year. This increase was due to the coming into operation of extensions on which construction had been in progress for some years. The Yallourn briquettes are considered to be equal in quality to those produced in the best German factories.

(3) *Distillation Products.* A new industry is in contemplation for the distillation of oil, motor spirit, and other valuable substances from brown coal, experiments in this direction on a small scale having yielded very satisfactory results.

(iii) *Queensland.* The distribution of production during the year 1931 was as follows :—

**COAL PRODUCTION.—QUEENSLAND, 1931.**

District.	1931.	District.	1931.
	Tons.		Tons.
Ipswich .. .. .	438,962	Clermont .. .. .	35,850
Darling Downs .. .. .	75,366	Bowen .. .. .	159,444
Wide Bay and Maryborough	64,379	Mount Mulligan (Chillagoe)	16,052
Rockhampton (Central) ..	51,255		
		Total .. .. .	841,308

The output in 1929, amounting to 1,369,000 tons, was the highest recorded, but with the resumption of operations after the close of the dispute in New South Wales the trade slackened off. Amongst the chief contributing factors were the effect of the competition of southern coal as a result of reductions in award rates, increase in the use of internal combustion engines, further extension of the use of electric power, and general trade depression. There were 46 collieries operating in the Ipswich district,

6 in the Darling Downs, 7 in the Maryborough area, 4 in Clermont district, 2 in Rockhampton district, 1 in Chillagoe district, and 2 in the Bowen district. State coal mines are in operation at Collinsville in the Bowen field, at Styx in the Central area, and at Mount Mulligan.

(iv) *South Australia.* So far no coal has been worked in South Australia (see Official Year Book No. 22, page 786).

(v) *Western Australia.* The production from the six collieries operating on the Collie field amounted in 1931 to 432,400 tons, a decrease of about 69,000 tons on the return for 1930. The deposits at Wilga again remained unworked during the year.

(vi) *Tasmania.* The production in 1931 amounted to 123,800 tons, about 10,000 tons less than the total for 1930. About 70,000 tons of the total output in 1931 were contributed by the Cornwall Coal Company, and 29,000 tons by the Mt. Nicholas Proprietary. Small quantities were raised at the Jubilee colliery and at various mines in the Latrobe district.

(vii) *Australia's Coal Reserves.* A summary of the information available in regard to estimated actual and possible reserves of coal for Australia as a whole was given in tabular form on page 755 of Official Year Book No. 20.

4. **Production in Various Countries.**—The total known coal production of the world in 1931 amounted to about 1,230 million tons, towards which Australia contributed about 10½ million tons, or 0.86 per cent. The following tables show the production of the chief British and foreign countries during each of the last four years where the returns are available:—

#### COAL PRODUCTION.—BRITISH EMPIRE.

Year.	Great Britain.	British India.	Canada.	Australia.	New Zealand.	Union of S. Africa.
BLACK COAL.						
1928 .. ..	Tons. 237,471,900	Tons. 22,542,900	Tons. 12,241,400	Tons. 11,839,800	Tons. 1,348,700	Tons. 12,407,500
1929 .. ..	257,906,800	23,418,700	12,079,000	10,365,300	1,367,200	12,812,800
1930 .. ..	243,881,800	23,803,000	10,202,700	9,531,400	1,382,900	12,029,500
1931 .. ..	219,459,000	21,716,000	8,329,000	8,401,260	979,600	10,709,100
BROWN COAL, LIGNITE.						
1928 .. ..	640	..	3,439,300	1,591,900	1,088,000	..
1929 .. ..	320	..	3,542,900	1,741,200	1,168,700	..
1930 .. ..	..	..	3,074,400	1,831,500	1,159,200	..
1931 .. ..	..	..	2,591,200	2,194,500	1,178,100	..

#### COAL PRODUCTION.—FOREIGN COUNTRIES.

Year.	Germany.	Austria.	Hungary.	Belgium.	France. (b)	Czecho-slovakia.	Yugoslavia.
BLACK COAL.							
1928 .. ..	Tons. 148,478,000	Tons. 198,900	Tons. 770,900	Tons. 27,142,700	Tons. 50,554,000	Tons. 14,330,300	Tons. 351,900
1929 .. ..	160,859,300	204,700	813,200	26,514,400	52,930,400	16,260,500	435,100
1930 .. ..	140,444,000	212,500	798,700	26,972,700	53,033,000	14,207,000	360,400
1931 .. ..	116,766,300	224,500	764,100	26,608,300	50,256,300	12,895,800	426,700
Year.	Poland.	Nether-lands.	Russia.	Japan.	China. (c)	United States.	
1928 .. ..	Tons. 39,974,900	Tons. 10,525,300	Tons. 32,351,400	Tons. 33,325,400	Tons. 25,000,000	Tons. 514,368,800	
1929 .. ..	45,505,800	11,398,300	40,711,700	33,716,800	25,437,000	543,586,400	
1930 .. ..	36,914,000	12,018,200	47,635,600	30,880,700	26,037,000	479,384,900	
1931 .. ..	37,661,000	12,697,600	56,804,500	25,388,000	27,245,000	390,753,000	

COAL PRODUCTION.—FOREIGN COUNTRIES—*continued.*

BROWN COAL, LIGNITE.

Year.	Germany.	Austria.	Hungary.	Belgium.	France.	Czecho-slovakia.	Yugoslavia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1928 ..	162,972,900	3,211,000	6,405,800	..	1,057,700	20,128,400	4,620,300
1929 ..	171,700,700	3,469,100	6,932,700	..	1,178,300	22,204,500	5,363,500
1930 ..	143,704,000	3,014,600	6,078,900	..	1,124,700	18,890,500	4,828,700
1931 ..	131,205,200	2,935,000	6,014,800	..	1,023,600	17,648,400	4,487,500

Year.	Poland.	Nether-lands.	Russia.	Japan.	China.	United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1928 ..	72,400	193,600	2,836,800	120,000	..	(a)
1929 ..	73,100	154,100	(a)	137,000	..	(a)
1930 ..	(a)	141,900	(a)	126,600	..	(a)
1931 ..	(a)	120,300	(a)	(d)	..	(a)

(a) Included with black coal. (b) Exclusive of Saar District, which produced 12,899,700 tons in 1928; 13,364,900 tons in 1929; 13,026,700 tons in 1930; and 11,187,500 tons in 1931. (c) Includes about 300,000 tons of lignite yearly. (d) Not available.

5. Exports.—(i) *General.* The exports of coal from Australia are chiefly confined to New South Wales.

The quantity of coal of Australian production (exclusive of bunker coal) exported to other countries in 1931-32 was 344,000 tons, valued at £341,800, of which 342,000 tons were exported from New South Wales, and 2,000 tons from Queensland. The quantity and value of the oversea exports of Australian coal for the years specified are shown in the appended table.

COAL.—OVERSEA EXPORTS, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 (a) ..	2,098,505	1,121,505	1928-29 ..	346,658	428,754
1921-22 ..	1,028,767	1,099,899	1929-30 ..	294,503	346,916
1926-27 ..	807,148	965,899	1930-31 ..	387,851	411,612
1927-28 ..	555,617	690,995	1931-32 ..	344,015	341,800

(a) Calendar Year.

Australian coal taken for bunker purposes during the same years as follows:—

COAL.—BUNKER, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 (a) ..	1,647,870	1,018,375	1928-29 ..	739,713	1,009,163
1921-22 ..	1,498,035	2,178,101	1929-30 ..	507,349	742,383
1926-27 ..	1,028,810	1,421,927	1930-31 ..	509,303	607,537
1927-28 ..	950,708	1,300,832	1931-32 ..	506,140	534,897

(a) Calendar Year.

(ii) *New South Wales.* The oversea and interstate coal exports from New South Wales in 1931 amounted to 2,263,000 tons, valued at £2,278,000, of which 1,460,000 tons, valued at £1,458,000 went to Australasian ports.

About 87 per cent. of the total, or 1,968,000 tons, were shipped from the port of Newcastle. Victoria took 770,000 tons, South Australia 432,000 tons, other Australian States 184,000 tons, New Zealand 200,000 tons, while 86,000 tons went to the United

Kingdom, 25,000 tons to India, 51,000 tons to Java, 59,000 to Philippine Islands, about 18,000 tons to Straits Settlements, 14,000 tons to Canada, 16,000 tons to Peru, and 27,000 tons to Hong Kong. The figures quoted include bunker coal.

During the year 1931 the exports from Port Kembla, Bulli and Bellambi to other States amounted to 67,700 tons, while 1,400 tons were sent to New Zealand, and about 25,000 tons to New Caledonia. The coal shipped from Sydney, amounting to 7,600 tons, went principally to New Guinea, Papua, the New Hebrides, and other Pacific Islands. For the twelve months ended 30th June, 1931, about 32,000 tons of coal were dispatched to interstate ports from the jetty at Catherine Hill Bay, near Newcastle.

The distribution of the total output from New South Wales collieries during the last five years was as follows, the particulars given of quantity exported including coal shipped as bunker coal :—

#### COAL.—DISTRIBUTION OF OUTPUT, NEW SOUTH WALES.

Year.			Exports to Australian Ports.	Exports to Foreign Ports.	Local Consumption.	Total.
			Tons.	Tons.	Tons.	Tons.
1927	..	..	2,651,492	1,687,716	6,786,906	11,126,114
1928	..	..	2,209,981	1,135,572	6,102,644	9,448,197
1929	..	..	1,237,272	694,913	5,685,551	7,617,736
1930	..	..	1,279,288	624,106	5,189,661	7,093,055
1931	..	..	1,460,039	802,760	4,169,583	6,432,382

For the period of five years shown in the table above, 21 per cent. of the total output was exported to other States, 12 per cent. was sent overseas, and 67 per cent. was consumed locally.

The figures quoted in the table above are given on the authority of the New South Wales Mines Department.

6. Consumption in Australia.—An estimate of the consumption of coal in Australia may be arrived at by adding the imports to the home production, and deducting the exports (including bunker coal taken by oversea vessels). The following table shows the consumption computed in the manner specified for the last five years :—

#### COAL.—CONSUMPTION, AUSTRALIA.

Year.	Quantity of Coal Consumed.					
	Home Produce.	Produce of Other Countries.	Total.			
	Tons.	Tons.	Tons.			
1927	..	..	..	13,378,301	23,563	13,401,864
1928	..	..	..	12,273,727	17,870	12,291,597
1929	..	..	..	11,140,576	493,461	11,634,037
1930	..	..	..	10,446,019	392,675	10,838,694
1931	..	..	..	9,696,738	1,962	9,698,700

The bunker coal taken away in 1931 was estimated at 508,000 tons. Figures for brown coal produced in Victoria are included in the total for home produce. The whole of the oversea imports in 1931, which amounted to 2,446 tons, came from the United Kingdom.

7. Prices.—(i) *New South Wales*. The price of New South Wales coal depends on the district from which it is obtained, the northern district coal generally realizing a much higher rate than the southern or western product. The average price on the mine in each district and for the State as a whole during the last five years was as follows :—

## COAL.—PRICES, NEW SOUTH WALES.

Year.	Northern District.	Southern District.	Western District.	Average for State.
	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.
1927 .. ..	19 2	16 8	12 6	17 7
1928 .. ..	19 0	16 6	13 1	17 6
1929 .. ..	16 8	16 11	12 11	15 8
1930 .. ..	15 4	15 8	12 4	14 8
1931 .. ..	15 2	13 11	12 0	14 4

(ii) *Victoria*. In Victoria the average price of coal in 1926 was 22s. 3d. ; in 1927, 22s. 3d. ; in 1928, 22s. 2d. ; in 1929, 23s. 1d. ; and in 1930, 23s. per ton. These averages are exclusive of brown coal, the production of which in 1930 was valued at 1s. 11d. per ton.

(iii) *Queensland*. Prices in the principal coal-producing districts during the last five years were as follow :—

## COAL.—PRICES, QUEENSLAND.

District.	Value at Pit's Mouth.				
	1927.	1928.	1929.	1930.	1931.
	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.
Ipswich .. ..	17 0	16 11	16 10	16 7	15 8
Darling Downs .. ..	19 6	19 5	19 5	19 5	18 6
Wide Bay and Maryborough	23 9	23 8	23 2	23 0	22 10
Rockhampton .. ..	22 10	23 3	22 11	20 5	16 8
Clermont .. ..	13 11	14 1	12 2	14 3	14 7
Bowen .. ..	16 3	15 2	15 4	15 5	15 1
Mount Mulligan (Chillagoe)	32 0	31 11	31 9	29 9	28 10
Average for State ..	18 0	18 0	17 6	17 5	16 8

In 1901 the average value at the pit's mouth was 7s. per ton, and the average for the ten years 1901 to 1910 was about 6s. 8d.

(iv) *Western Australia*. The average price of the Collie (Western Australia) coal during the last five years was as follows :—In 1927, 16s. 3d. ; in 1928, 15s. 11d. ; in 1929, 15s. 8d. ; in 1930, 15s. 9d. ; and in 1931, 15s. 7d. per ton.

(v) *Tasmania*. The average price per ton of coal at the pit's mouth in Tasmania for the five years 1927 to 1931 was :—In 1927, 17s. 10d. ; in 1928, 16s. 7d. ; in 1929, 16s. 3d. ; in 1930, 15s. 11d. ; and in 1931, 15s. 10d. per ton.

8. Prices in the United Kingdom.—During the five years 1927 to 1931 the average selling value of coal at the pit's mouth in the United Kingdom was :—In 1927, 14s. 7d. ; in 1928, 12s. 10d. ; in 1929, 13s. 5d. ; in 1930, 13s. 7d. ; and in 1931, 13s. 6d. per ton.

9. **Employment and Accidents in Coal Mining.**—(i) *Australia.* The number of persons employed in coal mining in each of the States during the year 1931 is shown below. The table also gives the number of persons killed and injured, with the proportion per 1,000 employed, while further columns are added showing the quantity of coal raised for each person killed and injured, this being a factor which must be reckoned with in any consideration of the degree of risk attending mining operations. A further table gives the rate of fatalities during the last five years.

COAL MINING.—EMPLOYMENT AND ACCIDENTS, 1931.

State.	Persons Employed in Coal Mining.	No. of Persons.		Proportion per 1,000 Employed.		Tons of Coal raised for each Person.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	15,667	7	66	0.45	4.21	918,900	97,500
Victoria .. ..	2,156	2	14	0.93	6.49	1,382,900	..
Queensland ..	2,362	..	117	..	49.53	..	7,200
Western Australia ..	752	1	118	1.33	156.91	432,400	3,700
Tasmania .. ..	363	4	2	1.10	0.55	31,000	61,900
<b>Total .. ..</b>	<b>21,300</b>	<b>14</b>	<b>317</b>	<b>0.66</b>	<b>14.88</b>	<b>756,800</b>	<b>33,400</b>

Owing to lack of uniformity in the definition of "injury," the figures relating to persons injured possess little comparative value.

The next table shows the average number of miners employed, number of fatalities, and rate per 1,000 during the quinquennium 1927-31 :—

COAL MINING.—FATALITIES, 1927 TO 1931.

State.	Average No. of Coal Miners.	Average No. of Fatal Accidents.	Rate per 1,000 Employed.
New South Wales .. ..	18,566	15	0.81
Victoria .. .. .	2,278	2	0.88
Queensland .. .. .	2,684	3	1.12
Western Australia .. ..	811	1	1.23
Tasmania .. .. .	366	1	2.73
<b>Total .. .. .</b>	<b>24,705</b>	<b>22</b>	<b>0.89</b>

(ii) *Other Countries.* According to the report of the Chief Inspector of Mines, the average death-rate per 1,000 miners from accidents in coal mines in Great Britain during the quinquennium 1927-31 was 1.06, the rates varying between 1.11 in 1929, and 0.98 in 1931, while, as shown in the table preceding, the rate for Australia for the same period was 0.89. In the United States during the eight years 1923-30 the death rate per 1,000 employees averaged 4.9 for bituminous coal miners, and 3.8 for anthracite miners. Rates for other coal-producing countries for the same period were—Canada, 2.6; South Africa, 3.4; Germany, 2.3; Spain, 1.8; Poland, 1.7; Belgium, 1.1; France, 1.0. In comparing these rates, allowance must be made for the circumstance that the methods of calculation are not identical in all countries.

### § 11. Coke.

Notwithstanding the large deposits of excellent coal in Australia, there was, prior to the war, a fairly considerable amount of coke imported from abroad. During recent years, however, a high standard of excellence has been attained in the local product, and the necessity for import has to a large extent disappeared. For the year 1931-32 the coke imported amounted to 777 tons, of which 228 tons were obtained from the United Kingdom and 549 tons from Germany.

The table hereunder gives the production in New South Wales during the last five years:—

#### COKE.—PRODUCTION, NEW SOUTH WALES.

Items.			1927.	1928.	1929.	1930.	1931.
Quantity	..	tons	709,342	520,201	464,360	367,772	217,509
Value, total	..	£	1,131,335	852,739	757,580	589,343	297,318
Value, per ton	..	..	31s. 10d.	32s. 9d.	32s. 8d.	32s. 1d.	27s. 4d.

The figures quoted refer to metallurgical coke, the product of coke ovens, and are exclusive of coke produced in the ordinary way at gas works. As regards both tonnage and value the production in 1927 was the highest recorded. The prevailing slackness of trade is reflected in the dwindling returns for the last few years.

A small quantity of coke is made in Queensland, the quantity returned in 1931 being 2,280 tons, valued at £4,081. The following table shows the amount manufactured locally during the last five years:—

#### COKE.—PRODUCTION, QUEENSLAND.

Year.			1927.	1928.	1929.	1930.	1931.
Quantity	..	tons	4,196	4,058	4,079	3,444	2,280

About 15,000 tons of coke were purchased from the southern States during the year 1931 for consumption at the ore treatment works at Mount Isa and Chillagoe. Local production in 1932 declined to 1,933 tons, valued at £3,414. An agreement, however, has been reached for the supply of 20,000 tons of coke per annum to the Mount Isa Mines Ltd. from the State Government's coke ovens at Bowen.

In order to avoid duplication with coal values the returns for coke have not been included in the general tables of mineral production in the early part of this chapter.

### § 12. Oil Shale and Mineral Oil.

Reference to the deposits of oil shale as well as to the efforts put forward in connexion with the search for mineral oil in Australia will be found in Official Year Book No. 22, pages 791 to 793.

A Committee for the Development of the Shale Oil Industry was established in 1931 by the Commonwealth Government, and a sum of £93,000 was made available to help the industry and with the further object of providing work for unemployed coal



miners. A subsidy was granted to Companies at Baerami to carry out a prospecting campaign and some 1,500 tons of shale were raised. At Newnes, the Committee commenced operations in August, and up to the end of the year about 2,000 tons of shale were mined, and over 100,000 gallons of crude oil were produced. A small quantity of shale was also mined at Joadja. Bores at Farley and Bargo were extended to a depth of 3,897 feet and 2,020 feet respectively. The total recorded production of shale in 1931 was 2,000 tons, valued at £1,800.

About 32,000 gallons of crude oil were produced in 1931 from shale treated in Tasmania, while the total quantity of oil distilled from shale up to the end of 1931 was set down at 183,000 gallons. An amalgamation of interests was effected in 1931, the individuals and companies concerned now operating under the name of the Tasmanite Shale Oil Company.

Great hopes were at one time entertained in regard to the petroliferous area in Queensland, but at time of writing it appears that all that can legitimately be said is that while gas and light to medium gravity oils have been found at Roma, and gas and oily wax at Longreach, structural conditions for accumulations on a commercial scale have not yet been located in the drilled areas. Attention, however, is being given to the scientific testing of structures in other areas.

During the year 1931 further attempts were made to treat the Roma petroliferous gas commercially, and about 5,000 gallons of petrol were produced.

Under prescribed conditions, the South Australian Government offers a bonus of £5,000 to the person or body corporate which first obtains from a local bore or well 100,000 gallons of crude petroleum containing not less than 90 per cent. of products obtainable by distillation.

Boring was continued in 1931 on a fresh site in the area held by the Freney Kimberley Oil Company in the West Kimberley Gold-field and prospecting was carried out in other parts of the State, but no outstanding results were reported.

The Commonwealth Government encourages the search for oil by placing at the disposal of companies and individuals the advice and experience of its technical staff appointed for this purpose. In co-operation with the Air Board useful aerial reconnaissances have already been made in Queensland by the Commonwealth Geological Adviser, the photographs and mosaics produced proving of great value in conjunction with the ground geological surveys. A further aerial reconnaissance was undertaken to cover most of the possible oil producing regions in Australia.

Attention is at present being devoted to the problem of economically obtaining fuel oil and other products from black and brown coals, to a review of the wasteful practice of burning lump coal to generate power, and to the more effective utilization of the known deposits of oil shale, particularly in New South Wales and Tasmania.

### § 13. Other Non-metallic Minerals.

A more or less detailed statement regarding the occurrence and production of other non-metallic minerals is given in preceding Official Year Books (see No. 22, pages 793 to 796). The tables of quantity and value in § 1 of this Chapter will, however, show the production of the principal items in this class for each State during the year 1931.

### § 14. Gems and Gemstones.

1. **Diamonds.**—It is difficult to secure accurate returns in connexion with the production of precious stones, but the yield of diamonds in 1931 in New South Wales was estimated at 725 carats, valued at £694, while the total production to the end of 1931 is given at 203,970 carats, valued at £146,372. The yield in 1931 was obtained mainly at Howell and Copeton in the Tingha division. Eighty carats were won near Bingara, and a small output was derived, but not sold, at Gulgong.

2. **Sapphires.**—The production of sapphires in New South Wales during 1929 was returned as 65 ozs., valued at £450, obtained wholly at Sapphire in the Inverell division, but no output was recorded in 1930 and 1931. Production during recent years was restricted owing to the unfavourable market.

In Queensland, gems to the value of £2,903 were purchased on the Anakie sapphire fields in 1931, but the prices obtainable were not sufficiently high to encourage intensive prospecting.

3. **Precious Opals.**—The estimated value of the opal won in New South Wales during the year 1931 was £2,178, obtained on the Lightning Ridge and Grawin fields. The figures quoted, however, do not represent the total output, as in many instances miners, buyers, and collectors leave the fields before a record of their production or purchases can be secured. Some very fine stones are at times obtained, one weighing 5 ozs. and valued at £300 being recovered in 1911. Three finds of large stone were made in 1928, the gems weighing 790, 590, and 232 carats respectively, and showing fine fire and lustre. Occasionally, black opals of very fine quality are found, one specimen from the Wallangulla field, weighing 6½ carats, being sold in 1910 for £102, while in the early part of 1920 a specimen realized £600. It is stated that this locality is the only place in the world where the "black" variety of the gem has been found. The total value of opal won in New South Wales since the year 1890 is estimated at £1,599,000, but as pointed out above the figures are to some extent understated.

Small quantities of precious opal are found in the Beechworth district in Victoria.

The opaliferous district in Queensland stretches over a considerable area of the western interior of the State, from Kynuna and Opalton as far down as Cunnamulla. The yield in 1931 was estimated at £600, and up to the end of that year at about £186,000. These figures are, however, merely approximations, as large quantities of opal, of which no record is obtained, are disposed of privately. Production during the last few years has been limited by the paucity of demand.

Owing to the poor market for gems, production from the Coober Pedy opal field situated in the Stuart Range in South Australia, fell from £11,056 in 1929 to £3,127 in 1931. The field is extremely prolific, a large quantity of precious white opal having been raised therefrom, while only a small portion of the known opal-bearing area has been thoroughly tested. A small amount of work was carried out during the year on the new field near Mount Johns.

According to a report a few years ago by the Australian Trade Commissioner in the East there is a good sale for the gems in China. It is stated that there is no difficulty in cutting and polishing, as the Chinese method of dealing with jade, dating back many centuries, can also be applied to opal.

4. **Other Gems.**—Various other gems and precious stones have from time to time been discovered in the different States, the list including agates, amethysts, beryls, chialstolite, emeralds, garnets, olivines, moonstones, rubies, topazes, tourmalines, turquoises, and zircons. In Western Australia, 609 carats (rough) of emeralds, valued at £278, were produced during 1929 in the Cue district on the Murchison gold-field. The value of the 3,750 carats reported from the same area in 1930 was not ascertainable, as there were no sales during the year. There was no recorded production in 1931.

### § 15. Numbers Engaged, Wages Paid, and Accidents in Mining.

1. Total Employment in Mining.—The number of persons engaged in the mining industry in Australia fluctuates according to the season, the price of industrial metals, the state of the labour markets, and according to the permanence of new finds, and the development of the established mines. During the year 1931 the number so employed was as follows :—

NUMBER OF PERSONS ENGAGED IN MINING, 1931.

State.	Number of Persons engaged in Mining for—						Total.
	Gold.	Silver, Lead, and Zinc.	Copper.	Tin.	Coal.	Other.	
New South Wales ..	9,944	2,812	35	994	15,667	1,230	30,682
Victoria ..	4,258	..	..	3	2,156	46	6,463
Queensland ..	2,751	351	287	548	2,362	454	6,753
South Australia ..	180	2	61	..	..	275	518
Western Australia ..	6,344	15	..	17	752	19	7,147
Tasmania ..	166	299	1,442	625	363	502	3,397
Northern Territory ..	70	4	3	29	..	39	145
Australia ..	23,713	3,483	1,828	2,216	21,300	2,565	55,105

Included in the figures for "other" in South Australia were 42 engaged in mining iron ore, 17 gypsum miners, 85 salt gatherers, and 85 opal miners. The Tasmanian figures include 280 osmiridium miners and 146 prospectors, and those for the Northern Territory, 30 mica miners and 5 tantalite miners.

The following table shows the number of persons engaged in mining in Australia during each of the years 1901, 1911, 1921, 1928 to 1931, together with the proportion of the total population so engaged :—

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION.

State.	1901.		1911.		1921.	
	Miners employed.	No. per 100,000 of Popu- lation.	Miners employed.	No. per 100,000 of Popu- lation.	Miners employed.	No. per 100,000 of Popu- lation.
New South Wales ..	36,615	2,685	37,017	2,177	29,701	1,408
Victoria ..	28,670	2,381	15,986	1,193	5,211	339
Queensland ..	13,352	2,664	13,201	2,122	5,847	765
South Australia ..	7,007	1,931	6,000	1,435	2,020	406
Western Australia ..	20,895	11,087	16,596	5,644	7,084	2,126
Tasmania ..	6,923	4,017	5,247	2,713	3,170	1,486
Northern Territory ..	..	..	715	..	131	3,351
Australia ..	113,462	2,992	94,762	2,074	53,164	974

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION—*continued.*

State.	1928.		1929.		1930.		1931.	
	Miners employed.	No. per 100,000 of Popu-lation.	Miners em- ployed.	No. per 100,000 of Popu-lation.	Miners em- ployed.	No. per 100,000 of Popu-lation.	Miners em- ployed.	No. per 100,000 of Popu-lation.
New South Wales ..	29,859	1,227	22,893	926	27,512	1,106	30,682	1,223
Victoria ..	3,045	174	3,231	183	3,255	183	6,463	360
Queensland ..	5,283	580	5,069	548	5,531	588	6,753	705
South Australia ..	593	103	619	107	565	97	518	89
Western Australia ..	4,853	1,215	5,159	1,254	5,442	1,300	7,147	1,698
Tasmania ..	3,778	1,783	3,603	1,685	3,280	1,515	3,397	1,544
Northern Territory ..	160	3,803	153	3,662	173	3,720	145	3,158
Australia ..	47,571	757	40,727	639	45,761	710	55,105	848

The general falling-off since 1901 is largely due to the causes mentioned in § 1. 6 *ante*. As compared with the preceding year, the proportion to population for Australia as a whole shows increases in 1930 and 1931, attributable mainly to the larger numbers engaged in the search for gold, particularly in New South Wales and Queensland.

2. **Wages Paid in Mining.**—Information regarding rates of wages paid in the mining industry, which in earlier issues of the Year Book was given in this chapter, is now contained in the Labour Report issued by this Bureau.

3. **Accidents in Mining, 1931.**—The following table gives particulars of the number of men killed and injured in mining accidents during the year 1931 :—

MINING ACCIDENTS, 1931.

Mining for—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
<b>KILLED.</b>								
Coal ..	7	2	..	..	1	4	..	14
Copper ..	..	..	2	..	..	1	..	3
Gold ..	4	1	..	..	16	3	..	24
Silver, lead, and zinc ..	5	..	2	..	..	..	..	7
Tin ..	..	..	..	..	..	..	..	..
Other minerals	3	..	..	..	..	..	..	3
Total ..	19	3	4	..	17	8	..	51

INJURED.

Coal ..	66	14	117	..	118	2	..	317
Copper ..	..	..	6	..	..	15	..	21
Gold ..	5	1	30	..	290	..	..	326
Silver, lead, and zinc ..	19	..	35	..	..	6	..	60
Tin ..	1	..	2	..	..	4	..	7
Other minerals	4	..	..	..	..	2	..	6
Total ..	95	15	190	..	408	29	..	737

The number killed in mining accidents in 1931 was considerably less than that for 1921 when 132 deaths were recorded, the figures for the earlier year being swollen by the 75 fatalities in the colliery disaster at Mount Mulligan in Queensland.

### § 16. Government Aid to Mining.

1. **Commonwealth.**—Assistance to mining is given by the Commonwealth under the provisions of the *Precious Metals Prospecting Act 1926*, the *Gold Bounty Act of 1930*, and the *Petroleum Prospecting Acts of 1926, 1927, and of 1928*.

The first-mentioned Act provides for a sum of £40,000, of which £15,000 is to be expended in the Northern Territory, and the balance is to be allocated to the States in such proportions as the Minister determines. At the 30th June, 1932, the expenditure amounted to £18,490. No further assistance is being granted to the States from this fund.

Prior to the passage of the *Petroleum Prospecting Act 1926* the Commonwealth Government had expended a sum of £368,790 in connexion with the search for oil principally in Papua and New Guinea.

Under the *Petroleum Prospecting Act 1926-27* a trust account of £160,000 was established to assist in the search for oil. The Minister was authorized to make advances out of the money standing to the credit of this account to persons or companies engaged in the search for oil, and to assist persons, companies, or State Governments to make geological surveys. The *Petroleum Prospecting Act of 1928* provides a further sum of £50,000. Up to the 30th June, 1932, the total expenditure under these Acts amounted to £187,827. The Government has decided to discontinue the granting of subsidies for deep drilling and to confine its attention to assistance in the carrying out of geological surveys and scout boring. Owing to financial stringency, however, the payment of all subsidies for oil prospecting has been temporarily suspended.

A small geological staff, including palaeontologists, has been appointed. The Geological Adviser was instructed to proceed to the United States and the Argentine in 1930 to study oil-field conditions on the spot, and submitted a comprehensive report, which was published as a Parliamentary Paper in 1931.

Experimental aerial photographic surveys have been carried out in conjunction with the Royal Australian Air Force to determine to what extent this technique is applicable under Australian conditions, and a report on the investigations is being issued.

The *Gold Bounty Act 1930* provided that for a period of ten years from 1st January, 1931, a bounty of £1 per ounce was payable under prescribed conditions by the Commonwealth on each ounce of fine gold produced in excess of the average production for the three years 1928-30. Under the *Financial Emergency Act 1931* the bounty was reduced to 10s. per ounce, subject to increases of 1s. according to each decrease of 3s. per cent. in the average rate of exchange. The rate of exchange on which the reduction to 10s. per ounce was based was taken as 30 per cent. Under the *Financial Emergency Act of 1932* the bounty was temporarily suspended.

To provide for geophysical prospecting in Australia, a sum of £32,000 was made available by the Commonwealth Government in conjunction with the Empire Marketing Board. This survey was completed and the covering report in connexion therewith has been issued.

2. **New South Wales.**—The chief aid given in this State is in the direction of assistance to prospectors. Advances are also made for the purpose of assisting in the erection of crushing batteries or reduction plants, but the expenditure in 1931 under this heading was only £60. Payments from the Prospecting Vote during 1931 amounted to £11,095. In addition, grants amounting to £5,573 were made to unemployed prospectors, and payments for work done absorbed £5,309. The Unemployment Relief Council made available also a sum of £9,000 to provide for the purchase of rations and free issue of miners' rights.

3. *Victoria*.—During the year 1931 expenditure in connexion with mining amounted to £53,300, of which £31,300 consisted of advances to prospectors, while advances to miners amounted to £9,152, aid to boring, £4,607, and assistance to batteries, £3,164. A sum of £2,174 was expended from the Commonwealth Unemployed Relief Fund on boring. The total includes also expenses amounting to £1,658 on account of geological surveys.

4. *Queensland*.—State assistance to the mining industry in 1931 amounted to £11,639, of which £8,076 was advanced to prospectors, the balance consisting of grants under the Mining Machinery Advances Act and for the provision of transport facilities, etc., to mineral fields, while £1,451 was expended on the erection of coke ovens at the Bowen State coal mine.

State coal mines were in operation at Bowen, Styx and at Mount Mulligan. The last mentioned mine, however, was continued on the co-operative system during the year. There is also a State Assay Office at Cloncurry at which assays and sampling are carried out for the public, and State batteries were maintained at Kidston, Charters Towers, and Bamford. The battery at Charters Towers was leased privately, also the State Works for the treatment of tin at Irvinebank.

5. *South Australia*.—Aid is given to the mining industry under the terms of the Mining Act of 1893, and previous measures. Up to the end of 1931 the total amount of subsidy paid was £69,145, of which £13,681 has been repaid, and £4,549 written off, leaving a debit of £50,915. Portion of this amount is represented by machinery that has fallen into the hands of the Government. Repayments must be provided from profits, but in only two instances have the profits enabled a full return to be made. The State maintains batteries and cyanide works at Mount Torrens, Peterborough, Tarcoola, and Glenloth, and assays for public purposes are made at the School of Mines. Advances to prospectors in 1931 amounted to £3,396.

6. *Western Australia*.—Under the Mining Development Act of 1902 assistance was granted in 1931 in accordance with the subjoined statement:—Advances in aid of mining work and equipment of mines with machinery, £910; aid to prospectors, £2,242; subsidies on stone crushed for the public, £703; total £3,855. Other assistance granted from the vote on various matters during the year amounted to £26,690, principally in connexion with prospecting for gold.

In 1931 there were 23 State batteries in operation. The amount expended thereon up to the end of 1931 was £91,981 from revenue and £322,918 from loan, giving a total of £414,899. The working expenditure up to the end of 1931 exceeded the revenue by £185,931. The total value of gold and tin recovered to the end of 1930 at the State plants was £6,556,000. Free assays and determinations of mineral values for prospectors are made at the Kalgoorlie School of Mines, and at the Government laboratory at Perth.

7. *Tasmania*.—Aid to Mining in 1931 amounted to £7,711, of which £2,219 was expended under Part III. of the *Aid to Mining Act 1927*, on drilling and boring, and £4,178 represented assistance and sustenance to prospectors under Part II., the balance being expended on miscellaneous assistance under Parts III. and IV. of the Act. The amount received from ore sales was £699, the bulk of which was paid to tributers. Receipts amounted to £153.

Tributers' assays are made at a nominal charge, and all tribute surveys are carried out free of charge by the Assay and Survey Office at Zeehan.

8. *Northern Territory*.—During the year 1931-32 assistance was granted to approved prospectors at the rate of £1 per week per man for rations with loan of prospecting tools not exceeding £2 in value to each prospector. The total assistance granted during the year amounted to £2,113.

The Government maintains a battery at Marranboy, and the Government Assayer makes free assays for prospectors, and arranges for the sampling, storage, and sale of ores.

### § 17. Metallic Contents of Ores, etc., Produced and Exported.

1. Local Production.—According to returns compiled from various sources by the Australian Mines and Metals Association, the quantities of the principal metals (exclusive of gold) extracted in Australia during the five years 1927 to 1931 were as follow :—

#### REFINED METALS PRODUCED IN AUSTRALIA.

Metal.	1927.	1928.	1929.	1930.	1931.
Silver .. .. ozs.	9,390,070	8,053,251	9,229,514	9,002,705	7,349,794
Lead, pig .. .. tons	164,480	155,076	176,820	168,291	133,306
Zinc .. .. .. tons	49,155	50,223	51,872	54,901	53,832
Copper .. .. . tons	9,564	11,858	10,874	14,900	12,936
Tin .. .. .. . tons	2,989	3,133	2,260	1,544	1,690

The local production of pig iron during the quinquennium 1923-27 ranged between 330,000 tons in 1923, and 517,000 tons in 1927. Complete information for later years is not available from the returns published by the Association, but according to the metal extraction returns published in the Statistical Register of New South Wales, the production of pig iron in that State amounted in 1927-28 to 428,000 tons, in 1928-29 to 461,000 tons, in 1929-30 to 308,369 tons, and in 1930-31 to 232,783 tons. As pointed out previously, the iron ore used is now obtained from South Australia.

2. Metallic Contents of Ores, Concentrates, etc., Exported.—The estimated metallic contents of ores, concentrates, etc., exported during the five years 1927 to 1931 are given in the following table :—

#### METALLIC CONTENTS OF ORES, CONCENTRATES, ETC., EXPORTED.

Metal.	Contained in—	1927.	1928.	1929.	1930.	1931.
Silver	ozs. { Lead-Silver-Gold Bullion Lead Concentrates and Ores Zinc Concentrates and Ores Copper and Gold Ores ..	.. ..	.. ..	44,677	44,777	1,018,359
		615,484	117,846	31,121	179,185	303,307
		1,640,891	1,453,396	604,014	558,577	183,111
		.. ..	.. ..	.. ..	.. ..	.. ..
	Total .. ..	2,256,375	1,571,242	679,812	782,539	1,504,777
Lead	tons { Lead-Silver-Gold Bullion Lead Concentrates and Ores Zinc Concentrates and Ores	488	..	689	252	17,130
		12,115	2,221	878	12,986	10,982
		14,198	12,726	5,704	9,482	1,878
		.. ..	.. ..	.. ..	.. ..	.. ..
	Total .. ..	26,801	14,947	7,271	22,720	29,990
Zinc	tons { Lead Concentrates and Ores Zinc Concentrates and Ores	579	77	21	396	557
		111,755	117,858	69,958	86,761	41,917
		.. ..	.. ..	.. ..	.. ..	.. ..
	Total .. ..	112,334	117,935	69,979	87,157	42,474
Copper	tons Ores, Matte, etc. ..	1,597	1,989	2,737	3,277	2,765
Tin	tons Concentrates and Ores ..	12	..	4	..	17

§ 18. Oversea Exports of Ores, Metals, etc.

The following table shows the quantity and value of the principal oversea exports of ores, concentrates, and metals, the produce of Australia, together with the countries to which the respective products were forwarded, for the year 1931-32 :—

OVERSEA EXPORTS OF AUSTRALIAN ORES, METALS, ETC., 1931-32.

Article.	Total Exports.	Exports to—						
		United Kingdom.	United States.	Belgium.	Germany.	Japan.	New Zealand.	Other Countries.
QUANTITY.								
Ores—	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Copper .. ..	3,031	497	2,534	..	..	..	..	..
Silver and Silver-lead	33,041	..	1,247	15,642	16,152	..	..	..
Iron .. ..	684,820	..	417,800	..	..	267,020	..	..
Wolfram .. ..	1,427	..	714	..	713	..	..	..
Concentrates—								
Silver and Silver-lead	75,091	..	..	68,431	6,660	..	..	..
Zinc .. ..	1,169,939	1,013,531	..	..	..	156,408	..	..
Cadmium—Blocks, Ingots, etc. ..	744	534	..	..	..	10	..	(a) 200
Copper—								
Matte .. ..	..	..	..	..	..	..	..	..
Ingot .. ..	240,444	197,163	42,970	..	97	..	85	(b) 129
Tin—Ingot .. ..	15,577	4,840	8,700	..	..	..	1,858	(c) 179
Lead—								
Pig .. ..	2,997,015	2,401,491	..	199,868	311,513	37,928	16,432	(d) 29,783
Zinc—Bars, Blocks, etc.	910,669	393,919	..	280,084	4,007	181,255	..	(e) 51,404
	oz.	oz.	oz.	oz.	oz.	oz.	oz.	oz.
(f) Platinum, Osmium, etc. .. ..	1,772	1,772	..	..	..	..	..	..
Gold—								
Bar, Dust, etc. ..	978,488	978,203	266	..	..	..	19	..
Silver—								
Bar, Ingot, etc. ..	5,821,889	2,458,534	..	..	..	..	851	g 3,362,504

VALUE—£.

Ores—								
Copper .. ..	1,867	151	1,716	..	..	..	..	..
Silver and Silver-lead	10,817	..	245	5,949	4,623	..	..	..
Iron .. ..	22,443	..	14,096	..	..	8,347	..	..
Wolfram .. ..	3,738	..	2,388	..	1,350	..	..	..
Concentrates—								
Silver and Silver-lead	27,256	..	..	24,266	2,990	..	..	..
Zinc .. ..	106,078	81,084	..	..	..	24,994	..	..
Cadmium—Blocks, Ingots, etc. ..	4,746	2,860	..	..	..	112	..	1,774
Copper—								
Matte .. ..	..	..	..	..	..	..	..	..
Ingot .. ..	469,003	389,528	78,841	..	190	..	250	194
Tin—Ingot .. ..	124,963	37,891	70,239	..	..	..	15,389	1,444
Lead—								
Pig .. ..	2,267,924	1,861,386	..	126,027	210,392	31,213	13,982	24,924
Zinc—Bars, Blocks, etc.	697,120	304,811	..	208,690	3,281	139,336	..	41,002
Platinum, Osmium, etc.	22,600	22,600	..	..	..	..	..	..
Gold—								
Bar, Dust, etc. ..	6,784,745	6,782,749	1,864	..	..	..	132	..
Silver—								
Bar, Ingot, etc. ..	581,310	255,163	..	..	..	..	99	326,048

(a) Sweden. (b) Netherlands. (c) South Africa, 100 cwt. (d) Hong Kong, 24,411 cwt.; Norway, 3,000 cwt.; South Africa, 2,338 cwt. (e) Hong Kong, 500 cwt.; India, 50,697 cwt. (f) Mainly platinum and osmiridium exported from New South Wales and Tasmania. (g) India, 2,978,000 oz.; China, 384,011 oz.; Fiji, 493 oz.



## CHAPTER XVII.

## PASTORAL PRODUCTION.

## § 1. Initiation and Growth of Pastoral Industry.

1. **Early Statistics.**—In earlier issues of the Year Book will be found a brief reference to the pastoral industry in Australia prior to the year 1860. (See Year Book No. 6 page 330.)

2. **Subsequent Statistics.**—While the statistical records of live stock in Australia prior to the year 1860 are somewhat defective, from that year onwards fairly complete particulars are available for most of the States. At the present time, statistics of live stock are collected annually in all the States principally through the agency of the police, but in the years 1885 to 1888 inclusive, and 1893 to 1895 inclusive, these particulars were not collected in South Australia, and similar gaps occur in the Victorian records for the periods 1895 to 1899 inclusive, and 1901 to 1903. In order to obtain totals for Australia for these years the missing numbers have been supplied by interpolation. The results so obtained probably differ but slightly from the actual numbers for the respective years.

3. **Increase in Live Stock.**—Particulars concerning the numbers of each of the principal kinds of live stock in Australia at decennial intervals from 1860 to 1920, and from 1926 onwards in single years, are given in the following table, and are shown continuously in the graphs hereinafter.

During the seventy-one years covered by the table the live stock of Australia increased considerably, horses 311 per cent., cattle 210 per cent., sheep 449 per cent., and pigs 233 per cent. The average annual increases which these aggregates represent are as follow :—Horses, 2.01 per cent. ; cattle, 1.61 per cent. ; sheep, 2.43 per cent. ; and pigs, 1.71 per cent.

## LIVE STOCK.—AUSTRALIA.

31st December.	Horses.	Cattle.	Sheep.(a)	Pigs.
1860 .. .. .	431,525	3,957,915	20,135,286	351,096
1870 .. .. .	716,772	4,276,326	41,593,612	543,388
1880 .. .. .	1,068,774	7,527,142	62,184,252	815,776
1890 .. .. .	1,521,598	10,299,816	97,881,221	891,138
1900 .. .. .	1,609,654	8,640,225	70,602,995	950,349
1910 .. .. .	2,165,866	11,744,714	98,066,046	1,025,850
1920 .. .. .	2,415,510	13,499,737	81,795,727	764,406
1926 .. .. .	2,122,516	11,963,278	104,267,101	989,009
1927 .. .. .	2,040,691	11,617,056	100,827,476	878,207
1928 .. .. .	1,942,753	11,300,757	103,430,773	910,181
1929 .. .. .	1,845,614	11,202,134	104,558,342	1,018,324
1930 .. .. .	1,792,734	11,720,916	110,568,279	1,071,679
1931 .. .. .	1,775,550	12,260,955	110,618,893	1,167,845

(a) See note to Table in § 4, 2 hereinafter.

4. **Fluctuations.**—The increases referred to, however, have not been continuous, marked fluctuations having taken place during the period, mainly on account of the droughts which have from time to time left their impress on the pastoral history of

Australia. These were in evidence in 1868, 1877, 1883-4, 1892, 1893, 1895, 1901-2, 1912, 1914-15, 1918, 1919, 1922-23, 1925-26, and 1927-28. In the latter years Central and Northern Queensland experienced one of the driest periods on record with a heavy mortality of stock.

The years in which the numbers of live stock attained their maxima are as follow :—Horses, 1918, 2,527,149; cattle, 1921, 14,441,309; sheep, 1931, 110,618,893; and pigs, 1917, 1,169,365.

5. Live Stock in Relation to Population.—The number of each kind of live stock per head of the population of Australia has varied during the past seventy-one years in the manner shown in the succeeding table :—

## LIVE STOCK PER HEAD OF POPULATION.—AUSTRALIA.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.
1860	0.38	3.45	17.58	0.31	1920	0.44	2.49	15.11	0.14
1870	0.43	2.60	25.24	0.33	1927	0.33	1.86	16.14	0.14
1880	0.48	3.37	27.87	0.37	1928	0.31	1.78	16.32	0.14
1890	0.48	3.17	31.06	0.28	1929	0.29	1.75	16.30	0.16
1900	0.43	2.29	18.75	0.25	1930	0.28	1.81	17.07	0.17
1910	0.49	2.65	22.16	0.23	1931	0.27	1.88	16.95	0.18

6. Live Stock in Relation to Area.—The numbers of live stock per square mile in the several States and Territories of Australia are given in the following table :—

## LIVE STOCK PER SQUARE MILE, 1931.

States and Territories.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales	1.70	9.67	171.24	1.25
Victoria	4.27	18.63	186.33	3.26
Queensland	0.70	8.28	33.29	0.33
South Australia	0.49	0.70	17.39	0.29
Western Australia	0.16	0.85	10.35	0.12
Tasmania	1.17	8.87	76.75	1.58
Northern Territory	0.06	1.43	0.04	0.00
Federal Capital Territory	0.98	5.74	206.80	0.11
Total	0.60	4.12	37.19	0.39

7. Minor Classes of Live Stock.—The numbers of minor classes of live stock returned for 1931 were as follow :—Goats, 142,074; camels, 5,404; mules and donkeys, 14,379; and ostriches, 88. Of these, goats were most numerous in Queensland; camels, mules and donkeys in Western Australia; and ostriches in South Australia. In the raising of goats, attention has in recent years been devoted to the angora goat and its product (mohair), and 6,091 angora goats are included in the total of 142,074 goats shown above. Of these, 2,213 were in New South Wales, 782 in Tasmania, 456 in Western Australia, 950 in South Australia, and 1,683 in Queensland, while the quantity of mohair produced in the latter State in 1931 was set down at 972 lbs., and the number of skins placed on the market was returned as 145.

8. Net Exports of Principal Pastoral Products.—The quantities by which the exports of the principal pastoral products of Australia exceeded the imports for the years 1927-28 to 1931-32 were as follow :—

## NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Products.	Unit of Quantity.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
QUANTITIES.						
Animals (living)—						
Cattle .. .. .	No.	11,131	8,452	6,191	174	331
Horses .. .. .	"	5,627	5,356	5,969	4,926	4,771
Sheep .. .. .	"	30,871	29,545	38,764	26,071	47,131
Bones .. .. .	cwt.	14,486	14,060	10,503	12,238	9,416
Glue-pieces and Sinews .. .. .	"	-13,469	-18,420	-20,176	-15,927	186
Glycerine .. .. .	lb.	-571,266	-388,800	-703,682	-254,290	13,575
Hair .. .. .	"	(a)	(a)	(a)	126,712	74,445
Hoofs .. .. .	cwt.	13,543	9,852	11,273	(a)	(a)
Horns .. .. .	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef .. .. .	lb.	169,094,472	189,090,102	156,748,365	155,630,647	165,871,501
Frozen Mutton and Lamb .. .. .	"	46,359,146	84,905,335	100,410,980	109,252,956	165,281,142
Frozen Rabbits and Hares .. .. .	pair	3,433,098	3,598,075	3,873,337	(a)	(a)
Frozen, Other .. .. .	lb.	7,592,372	7,127,553	6,115,445	6,920,925	8,061,876
Potted, and Extract of .. .. .	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc. .. .. .	lb.	3,760,147	3,168,759	3,381,248	4,265,578	5,258,749
Other (excluding Bacon and Ham) .. .. .	"	322,117	447,495	434,050	344,712	277,562
Sausage Casings .. .. .	cwt.	22,714	31,489	39,984	8,976	11,562
Skins—						
Hides .. .. .	No.	1,034,317	816,980	702,135	(a)	(a)
Sheep .. .. .	"	11,315,072	11,026,291	12,944,781	(a)	(a)
Rabbit and Hare .. .. .	cwt.	112,547	100,655	77,566	63,348	69,774
Other (including Undressed Furs) .. .. .	"	(a)	(a)	(a)	(a)	(a)
Tallow .. .. .	cwt.	648,592	768,314	592,231	484,762	768,511
Wool—						
Greasy .. .. .	lb.	682,913,332	759,443,979	696,578,126	767,050,003	772,804,985
Scoured .. .. .	"	55,397,621	46,019,059	44,195,688	43,685,080	55,708,642
Tops .. .. .	"	2,559,159	872,774	552,152	1,033,823	2,170,330

NOTE.—The minus sign — signifies net imports. (a) Quantity not available.

The values of the net exports for the same five years are furnished in the next table, and amount to no less a total than £287,458,566 for the period, or an average of £57,491,713 per annum, of which wool represents 78.98 per cent. Meat, skins, and tallow rank next in order of importance.

## NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Products.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
VALUES.(a)					
Animals (living)—	£	£	£	£	£
Cattle .. .. .	41,352	21,205	-19,814	-7,788	-5,673
Horses .. .. .	65,285	79,257	85,178	105,254	100,935
Sheep .. .. .	40,512	43,447	35,681	3,346	8,496
Bones .. .. .	8,932	10,775	8,015	8,702	6,725
Glue-pieces and Sinews .. .. .	-2,503	-6,956	-13,577	-13,232	1,610
Glycerine .. .. .	-15,097	-6,809	-15,167	-3,119	4,091
Hair .. .. .	-43,054	-35,660	-47,591	-9,209	-24,966
Hoofs .. .. .	7,826	6,162	7,128	4,412	4,750
Horns .. .. .	25,488	24,385	22,626	18,164	14,815
Meats—					
Frozen Beef .. .. .	2,377,871	2,888,284	2,569,782	2,235,526	2,087,812
Frozen Mutton and Lamb .. .. .	1,188,388	2,165,321	2,386,175	2,105,956	2,994,056
Frozen Rabbits and Hares .. .. .	309,149	331,456	339,957	412,845	478,946
Frozen, Other .. .. .	142,475	180,422	152,310	149,643	151,793
Potted, and Extract of .. .. .	-60,662	-76,328	-52,491	6,981	5,774
Preserved in Tins, etc. .. .. .	100,110	84,029	118,513	138,253	135,805
Other (excluding Bacon and Ham) .. .. .	6,243	11,086	8,695	7,490	6,098
Sausage Casings .. .. .	136,567	144,063	245,246	159,913	56,701
Skins—					
Hides .. .. .	1,401,029	886,430	459,192	517,132	62,762
Sheep .. .. .	4,385,138	4,526,170	3,123,282	1,945,064	1,097,816
Rabbit and Hare .. .. .	2,490,709	2,624,253	1,507,142	557,207	477,476
Other (including Undressed Furs) .. .. .	831,042	277,477	586,842	175,095	304,696
Tallow .. .. .	1,043,311	1,366,341	981,454	597,594	827,454
Wool—					
Greasy .. .. .	58,295,914	55,592,624	32,775,631	29,294,646	28,883,940
Scoured .. .. .	6,621,937	5,519,161	3,563,207	2,469,360	2,817,703
Tops .. .. .	488,199	166,957	87,781	114,021	248,055
Noils (b) .. .. .	..	..	..	30,814	44,520
Waste (b) .. .. .	..	..	..	9,487	7,940
Total Values .. .. .	79,886,161	76,823,552	48,915,166	41,033,557	40,800,130

NOTE.—The minus sign — signifies net imports. (a) Australian currency values. (b) Not available prior to 1930-31.

9. Value of Pastoral Production.—Details of the quantities and values of the items included in the value of pastoral production for the year 1931-32 are shown in the following table. The values quoted are the gross values in the metropolitan markets at port of shipment oversea. Complete data regarding production costs to permit of a determination of the net value of production in accordance with the resolutions of the Statistical Conference of 1924 and subsequent years are not yet available. The omission of the local consumption of rabbits (meat and skins) and other pastoral by-products, tends, however, to limit the exaggeration of the total gross value shown.

## PASTORAL PRODUCTION.—AUSTRALIA, 1931-32.

Item.	Quantity.	Value.
		£
Wool .. .. .	lb. 1,006,630,847	35,073,500
Meats—		
Beef—		
Local Consumption (including Factories) .. .. .	.. .. . 607,887,486	8,714,067
Exports of Carcasses .. .. .	.. .. . 165,872,145	2,087 829
Mutton and Lamb—		
Local consumption (including Factories) .. .. .	.. .. . 523 018,729	7,242,175
Exports of Carcasses .. .. .	.. .. . 165,281,336	2,994,062
Rabbits and Hares (Export only) .. .. .	pair 7,891,880	478,946
Other Meats, frozen and other (Export only) .. .. .	.. .. . (a)	159,053
Sausage Casings (Export only) .. .. .	.. .. . cwt. 22,447	1 2,365
Skins—		
Exports—		
Cattle and Calf .. .. .	.. .. . No. 318,505	216,647
Sheep .. .. .	.. .. . ,, 9,277,611	257,460
Rabbit and Hare .. .. .	.. .. . cwt. 70,207	488,736
Other Furred .. .. .	.. .. . ,, (a)	494,622
Other Skins .. .. .	.. .. . ,, (a)	4,436
Consumption in Factories .. .. .	.. .. . ,, (a)	1,670,148
Tallow—		
Exports .. .. .	.. .. . cwt. 772,769	831,415
Local Consumption .. .. .	.. .. . ,, 499,143	509,303
Hair, Horns, etc. (Export only) .. .. .	.. .. . ,, ..	55,741
Net Exports of Live Stock .. .. .	.. .. . ,, ..	79,952
	..	61,540,457

(a) Not available.

10. Consumption of Meats.—Particulars of the per capita consumption of meat in Australia are shown in the following table, together with figures for certain other countries. The figures have in each case been obtained from official sources, although it is not definitely known that they are all on a similar basis.

While the average consumption in Australia is considerably below that of New Zealand, it is greatly in excess of that of Canada, Great Britain and the United States. Compared with Australia the consumption of beef, mutton and lamb in these countries is relatively small, but pork consumption is greatly in excess of the average recorded both for Australia and New Zealand. The consumption of beef in North America and on the Continent of Europe has shown a downward tendency of recent years while, the figures for pork and mutton have increased considerably.

## MEATS.—PER CAPITA CONSUMPTION, AUSTRALIA AND OTHER COUNTRIES.

Description.	Australia, 1931-32.	New Zealand, (d).	Great Britain, 1931.	Canada, 1932.	United States of America, 1931.
	lb.	lb.	lb.	lb.	lb.
Beef and Veal .. ..	92.54	146.28	66.50	56.02	56.50
Mutton and Lamb .. ..	79.94	77.30	31.00	6.97	7.10
Pork .. ..	6.68	13.72	(b) 47.50	91.79	(c) 69.60
Total .. ..	179.16	237.30	145.00	154.78	133.20
Bacon and Ham .. ..	10.68	12.83	(a)	(a)	(a)
Total All Meats .. ..	189.84	250.13	145.00	154.78	(c) 133.20

(a) Probably included with Pork.  
(d) Average, three years ending 1930-31.

(b) Including Lard.

(c) Excluding Lard.

## § 2. Horses.

1. *Suitability of Australia for Horse-breeding.*—From the earliest times the suitability of the climate and pastures of Australia for the production of serviceable breeds of horses has been fully recognized. By the importation of high-class sires, and the careful selection of breeding mares, these natural advantages have been utilized to the fullest extent in breeding all classes of horses. As a consequence of this combination of advantages, the Australian horse, whether of the heavy draught, medium weight, or light saddle and carriage variety, compares more than favourably with the product of other lands. The Australian horse is highly regarded by the military authorities in India, and large numbers are obtained annually for remount purposes. During the war, Australian horses were found to stand up well to requirements, especially in Palestine and Sinai, where the rigours of the desert campaign severely tested their powers of endurance.

2. *Distribution throughout Australia.*—The States of New South Wales, Queensland and Victoria together depasture more than 75 per cent. of the total number of horses in Australia. In the following table figures are given for each State, etc., for each of the last five years :—

## HORSES.—NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.	Total.
1927	4598,377	428,666	547,412	224,027	165,021	35,872	40,108	41,208	2,040,691
1928	4567,371	412,867	522,490	205,865	160,876	34,908	37,452	a 924	1,942,753
1929	4534,945	393,015	500,104	189,054	159,528	34,336	33,703	a 929	1,845,614
1930	4524,512	379,872	480,970	183,529	156,973	32,700	33,363	a 815	1,792,734
1931	524,751	375,459	468,603	185,222	156,489	30,659	33,442	925	1,775,550

(a) 30th June year following.

The number of horses attained its maximum in Australia during 1918, when a total of 2,527,149 was recorded. Since that date, however, a general decline has been experienced, and the number for 1931 is the lowest returned since 1906. The numbers of horses in Australia and in the United States of America reached their maximum in 1918, while in Canada the highest total was recorded in 1921. The decline in each country since that year up to the latest available date amounted to 30, 41 and 13 per cent.

respectively. In Argentina on the other hand, a slight increase was recorded in 1930 over the numbers ascertained at the previous census of 1922. The rapid development of motor transport coupled with the use of petrol-driven cultivating and other machinery on farms brought about the decreases alluded to. In Australia, however, there has recently been a tendency to revert to the horse not only on the farm, but to some extent for the transport of goods in the cities. Confirmation of this fact is afforded by increases in 1932 in South and Western Australia of 5,000 and 1,000, respectively.

The number of horses in Australia from 1860 onwards, may be ascertained from the graph herein.

3. Proportions in the Several States and Territories.—The percentages of the number of horses in the several States and Territories on the total for Australia for the year 1931 were:—New South Wales, 29.55; Victoria, 21.15; Queensland, 26.39; South Australia, 10.43; Western Australia, 8.81; Tasmania, 1.73; Northern Territory 1.89; and Federal Capital Territory, 0.05 per cent.

The percentages in the various States have remained practically constant during the last quinquennium.

4. Relation to Population.—In proportion to population, horses are much more numerous in the Northern Territory than in any other of the principal divisions of Australia. Queensland is next in order, while Tasmania has the smallest number of horses per head. The number per head of population has declined in all the statistical divisions since 1927. For the year 1931 the relative numbers were:—New South Wales, 0.21; Victoria, 0.21; Queensland, 0.49; South Australia, 0.32; Western Australia, 0.37; Tasmania, 0.14; Northern Territory, 7.50; Federal Capital Territory, 0.11; Commonwealth, 0.27.

5. Comparison with other Countries.—The number of horses in some of the leading horse-breeding countries of the world, according to the latest available returns, is as follows:—

#### HORSES.—NUMBER IN PRINCIPAL COUNTRIES.

Country.	Date.	Number of Horses (,000 omitted).	Country.	Date.	Number of Horses (,000 omitted).
Soviet Republics ..	1930	30.237	Dutch East Indies	1931	655
U.S. of America ..	1931	12.679	Uruguay ..	1930	613
Argentine Republic	1930	9,858	Lithuania ..	1931	597
Brazil .. ..	1920	5,254	Spain .. ..	1931	563
Poland .. ..	1931	4,124	Denmark ..	1931	499
Germany .. ..	1931	3,451	Bulgaria ..	1926	482
Canada .. ..	1931	3,129	Turkey .. ..	1931	481
France .. ..	1931	2,920	Irish Free State	1931	450
India (British and (Native) ..	1931	2,355	Chile .. ..	1930	441
Rumania .. ..	1931	1,988	Peru .. ..	1929	432
<b>Australia .. ..</b>	<b>1931</b>	<b>1,776</b>	Bolivia .. ..	1931	390
Japan .. ..	1930	1,490	Latvia .. ..	1931	366
United Kingdom ..	1931	1,194	Finland .. ..	1930	357
Yugoslavia .. ..	1931	1,169	Haiti .. ..	1931	350
Mexico .. ..	1926	1,036	Philippine Islands	1929	341
Italy .. ..	1930	967	Greece .. ..	1931	325
Colombia .. ..	1929	929	Siam .. ..	1931	303
Hungary .. ..	1931	865	Netherlands ..	1930	299
Union of South Africa	1930	856	New Zealand ..	1931	296
Cuba .. ..	1929	758	Belgium .. ..	1931	242
Czechoslovakia ..	1930	748	Paraguay .. ..	1927	210
Sweden .. ..	1931	656	French Morocco ..	1931	207
			Estonia .. ..	1931	207

6. **World's Totals.**—Several countries do not issue annual statistics of live stock, the information available consisting of censuses or estimates made at varying intervals. It is not possible, therefore, to give world aggregates for the different classes of stock year by year, nor to make a satisfactory comparison between the totals for consecutive years. In order, however, to give some idea of the latest position as regards live stock and the changes that have taken place as compared with pre-war years, the following information has been taken from the Year Book of the International Institute of Agriculture. The list of countries included is fairly complete, but China, which possesses large numbers of horses, is omitted, as also are certain parts of Asiatic Russia, together with a few other countries. While for some countries the figures are the result of careful enumeration, for others they are merely approximations. The totals, therefore, can be regarded as a general indication only of the position at the dates shown. The figures for horses are as follow :—

## HORSES.—WORLD'S TOTALS.

Continents, etc.	Number at the date nearest—		Increase (+) or Decrease (–) in 1927.	
	1913.	1927.	Actual Figures.	Percentages.
	,000	,000	,000	%
Europe (excluding Soviet Republics) ..	22,698	22,863	+ 165	+ 0.7
Union of Socialist Soviet Republics ..	35,522	31,258	– 4,264	–12.0
North and Central America .. ..	26,134	20,465	– 5,669	–21.7
South America .. ..	18,162	17,653	– 509	– 2.8
Asia (excluding Soviet Republics) ..	4,914	5,394	+ 480	+ 9.8
Africa .. ..	1,692	2,079	+ 387	+22.9
Oceania .. ..	2,976	2,445	– 531	–17.8
<b>Total .. ..</b>	<b>112,098</b>	<b>102,157</b>	<b>– 9,941</b>	<b>– 8.9</b>

Compared with the pre-war totals reductions have taken place in all the continents, with the exception of Africa, where the number of horses is relatively insignificant. The greatest decrease occurred in North and Central America, viz. :—5,669,000, largely as the result of the decline in the United States.

7. **Oversea Trade in Horses.**—(i) *Exports.* Australia's export trade in horses has fluctuated considerably since the war, and is now far below that of earlier years. For instance, during the period 1901–5 the average number exported was over 18,000, whereas during the last five years the figure was under 6,000. The total number of horses exported during that period amounted to 27,381, valued at £800,362, equal to an annual average of 5,576 for £160,072. The average export price for the period was £28 14s. 2d. About 86 per cent. of the horses exported went to India, where they are largely used for remount purposes.

(ii) *Imports.* The number of horses imported into Australia is comparatively small, consisting mainly of valuable stud animals from the United Kingdom and race horses from New Zealand. The average value per head of the horses imported during the last five years was £297 10s. 3d. The average number imported per annum was, however, only 245, and the average annual value, £72,891. The following table gives the imports, exports, and net exports of horses during each of the years from 1927–28 to 1931–32 :—

## HORSES.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1927-28.. ..	300	87,065	5,936	152,350	5,636	65,285
1928-29.. ..	339	95,025	5,695	174,282	5,356	79,257
1929-30.. ..	362	121,902	6,331	207,080	5,969	85,178
1930-31 (a) ..	101	40,094	5,027	145,348	4,926	105,254
1931-32 (a) ..	121	20,367	4,892	121,302	4,771	100,935

(a) Australian currency values.

## § 3. Cattle.

1. **Purposes for which Raised.**—In all the States, cattle-raising is carried out, the main object in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. The great impetus which the development of the export trade in Australian butter gave to the dairying industry led to a considerable increase in numbers and improvement in quality of the dairy herds in Victoria, New South Wales, and Southern Queensland in particular, the portion of Australia in the temperate zone being the best adapted to this industry. On the other hand, beef-producing cattle are mainly raised in the tropical districts, i.e., in the northern parts of Queensland, in the Northern Territory, and in the Kimberley district in the north of Western Australia.

2. **Distribution throughout Australia.**—Until 1880, New South Wales occupied the leading position as a cattle-raising State, but in that year Queensland took first place, which it has since maintained. The graph herewith shows a rapid increase in the number of cattle in Australia up to the year 1894, when 12,311,617 head were depastured. From 1895 onwards, however, the effects of droughts and the ravages of tick fever reduced the number to 7,062,742 in 1902. Following the disastrous drought which terminated in the latter year, the herds were gradually built up, and despite recurring droughts, they continued to increase in recent years until the maximum number of 14,441,309 cattle was attained in 1921. The decline in the frozen beef trade and the droughts of 1922-23 and 1925-26, which particularly affected the beef cattle areas of New South Wales and Queensland, were mainly responsible for the heavy decreases recorded in both these States during recent years. In 1931, however, an increase in the numbers of almost 500,000 was recorded, half of which was due to expansion in the dairy herds.

The number of cattle in the several States and Territories during each of the last five years is as follows :—

## CATTLE.—NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Total.
1927	2,848,654	1,327,077	5,225,804	316,314	846,735	210,894	835,390	46,188	11,617,056
1928	2,784,615	1,304,426	5,128,341	263,016	837,527	208,812	768,751	45,269	11,300,757
1929	2,686,132	1,335,242	5,208,588	204,516	836,646	214,643	711,607	44,760	11,202,134
1930	2,840,473	1,429,920	5,463,724	218,985	812,844	230,254	720,476	44,240	11,720,916
1931	2,993,586	1,637,530	5,550,399	265,324	826,532	232,444	749,745	5,395	12,260,955

(a) 30th June year following.

Queensland contains within its borders nearly one half of the cattle of Australia. Despite decreases during recent years the percentage of cattle in Queensland on the total for Australia amounted to 45.27 in 1931. The largest relative gain since 1927



occurred in Victoria followed by Queensland and Tasmania slight decreases were recorded in the remaining States. The percentage proportion in each of the States and Territories during 1931 was:—New South Wales, 24.42; Victoria, 13.36; Queensland, 45.27; South Australia, 2.16; Western Australia; 6.74; Tasmania, 1.90; Northern Territory, 6.11; Federal Capital Territory, 0.04.

3. Comparison with other Countries.—The following table shows the number of cattle in Australia, and in some of the principal cattle-raising countries of the world, at the latest available date:—

CATTLE.—NUMBER IN VARIOUS COUNTRIES.

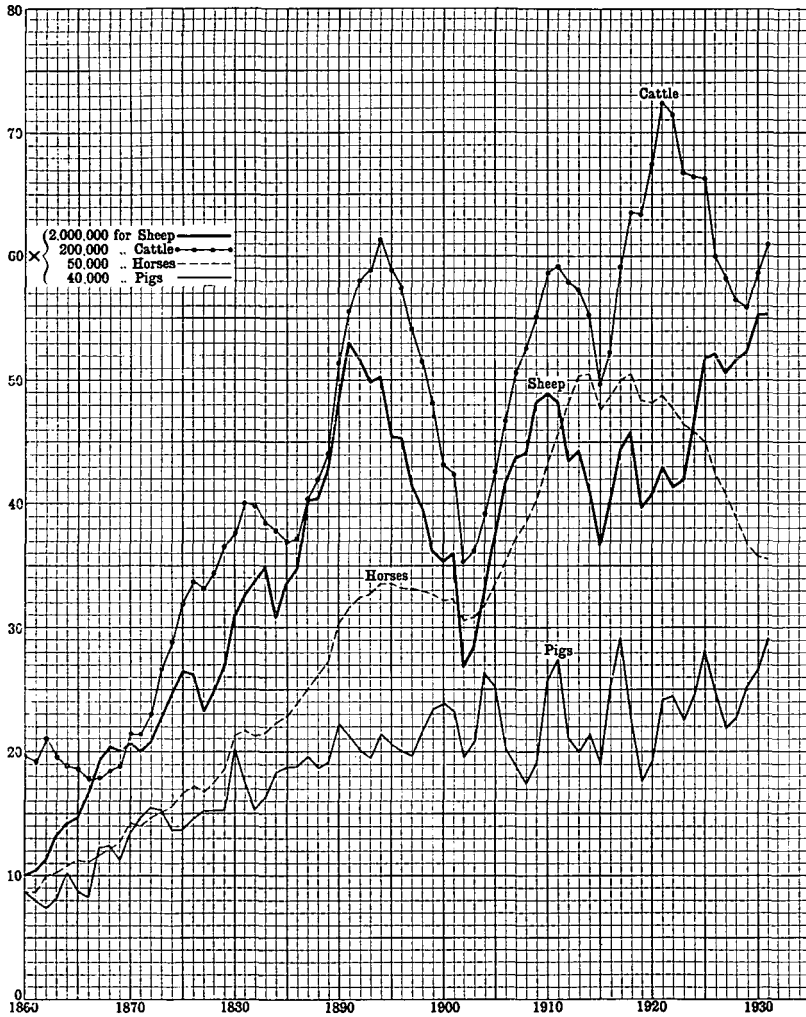
Country.	Date.	No. of Cattle (,000 omitted).	Country.	Date.	No. of Cattle (,000 omitted).
India (British and Native) .. ..	1930	159,763	Tanganyika Territory	1931	5,099
U.S. of America .. ..	1931	62,407	Turkey .. ..	1931	4,869
Soviet Republics .. ..	1931	49,900	Cuba .. ..	1929	4,865
Brazil .. ..	1920	34,271	Siam .. ..	1931	4,774
Argentine Republic .. ..	1930	32,212	Dutch East Indies .. ..	1931	4,681
Germany .. ..	1931	19,124	Czechoslovakia .. ..	1931	4,451
France .. ..	1931	15,434	New Zealand .. ..	1931	4,081
<b>Australia</b> .. ..	<b>1931</b>	<b>12,261</b>	Rumania .. ..	1931	4,079
Union of South Africa	1930	10,574	Irish Free State .. ..	1931	4,029
Poland .. ..	1931	9,786	Yugoslavia .. ..	1931	3,872
Canada .. ..	1931	7,991	Spain .. ..	1931	3,654
United Kingdom .. ..	1931	7,955	Denmark .. ..	1931	3,208
Colombia .. ..	1929	7,343	Sweden .. ..	1931	3,109
Uruguay .. ..	1930	7,128	Rhodesia .. ..	1931	3,035
Madagascar .. ..	1930	7,048	Paraguay .. ..	1926	2,973
Italy .. ..	1930	6,893	Nigeria .. ..	1931	2,911
French Equatorial and West Africa .. ..	1931	5,629	Netherlands .. ..	1930	2,366
Mexico .. ..	1926	5,585	Austria .. ..	1930	2,313
Kenya .. ..	1930	5,192	Venezuela .. ..	1922	2,278
			Bolivia .. ..	1931	2,064
			Uganda .. ..	1931	2,064

4. World's Totals.—The information in the appended table has been taken from the returns published by the International Institute of Agriculture at Rome. The figures given therein are subject to the limitations previously stated in respect to horses. (See § 2, 6 *ante*.)

CATTLE.—WORLD'S TOTAL.

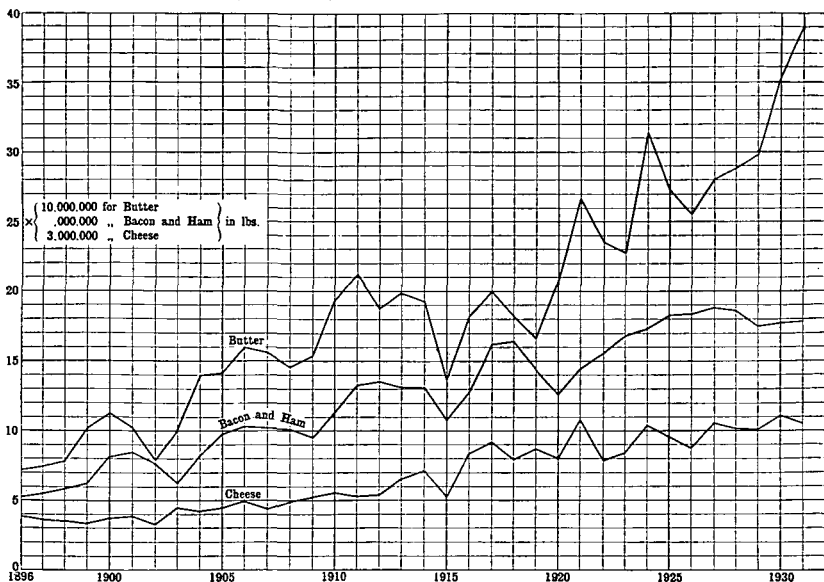
Continents, etc.	Number at the date nearest—		Increase (+) or Decrease (–) in 1927.	
	1913.	1927.	Actual Figures.	Percentages.
	,000	,000	,000	%
Europe (excluding the U.S.S.R.) .. ..	98,764	100,339	+ 1,575	+ 1.6
Union of Socialist Soviet Republics .. ..	60,280	67,835	+ 7,555	+ 12.5
North and Central America .. ..	76,485	79,415	+ 2,930	+ 3.8
South America .. ..	86,662	101,053	+ 14,391	+ 16.6
Asia (excluding the U.S.S.R.) .. ..	131,300	143,927	+ 12,627	+ 9.6
Africa .. ..	34,537	51,270	+ 16,733	+ 48.4
Oceania .. ..	13,859	15,476	+ 1,617	+ 11.7
<b>Total</b> .. ..	<b>501,887</b>	<b>559,315</b>	<b>+ 57,428</b>	<b>+ 11.4</b>

## NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS—AUSTRALIA, 1860 TO 1931.



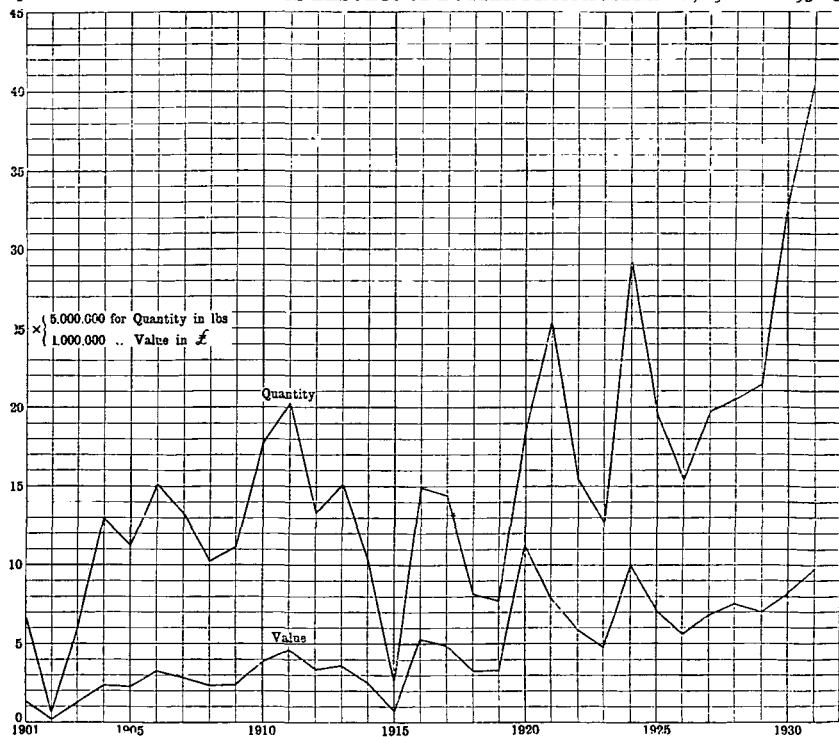
EXPLANATION—The base of each small square represents an interval of one year and the vertical side 2,000,000 in the case of sheep, 200,000 for cattle, 50,000 for horses, and 40,000 for pigs.

PRODUCTION OF BUTTER, CHEESE, AND BACON AND HAM—AUSTRALIA, 1896 TO 1931-32.



EXPLANATION.—The base of each small rectangle represents an interval of one year, and the vertical height of each denotes in the case of butter 10,000,000 lbs.; in the case of bacon and ham 4,000,000 lbs. and in the case of cheese 3,000,000 lbs.

QUANTITY AND VALUE OF NET EXPORTS OF BUTTER FROM AUSTRALIA, 1901 TO 1931-32.



EXPLANATION.—The base of each small rectangle represents an interval of one year, and the vertical height 5,000,000 lbs. in weight, or £1,000,000 in value.

The number of cattle increased throughout the world since 1913, the most notable advances being in Africa and South America, where the numbers increased by more than 16 and 14 million head respectively since the pre-war year.

5. **Imports and Exports of Cattle.**—The products of the cattle-raising industry figure largely in the export trade of Australia, although the export of live cattle has never been large. The number of cattle imported is also small, consisting, as in the case of horses, mainly of valuable animals for stud purposes. Details are as follow :—

#### CATTLE.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1927-28 ..	89	3,553	11,220	44,905	11,131	41,352
1928-29 ..	96	17,761	8,548	38,966	8,452	21,205
1929-30 ..	193	44,309	6,384	24,495	6,191	—19,814
1930-31 (a) ..	81	11,368	355	3,580	274	—7,788
1931-32 (a) ..	40	8,543	371	2,870	331	—5,673

(a) Australian currency values. Note.—The minus sign (—) signifies net imports.

The average value of the cattle imported during the last five years was £171 8s. 3d. per head, while the average value of the cattle exported during the same period was £4 5s. 5d. As previously stated, the imported cattle were required principally for stud purposes.

6. **Cattle Slaughtered.**—The number of cattle slaughtered during each of the years 1927 to 1931 is given hereunder :—

#### CATTLE (INCLUDING CALVES) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N. Ter.	Fed. Cap. Ter. (a)	Total.
1927	694,527	469,610	739,995	142,557	101,146	36,249	1,854	2,924	2,188,862
1928	778,994	466,576	685,196	127,627	100,982	36,264	2,065	2,074	2,199,778
1929	680,316	387,662	630,620	117,806	91,195	35,278	1,531	2,143	1,946,551
1930	594,950	328,032	648,473	89,585	95,021	27,338	1,844	1,357	1,786,600
1931	630,372	375,380	540,649	81,285	91,748	28,565	1,844	1,349	1,751,192

(a) For year ended 30th June of year following.

7. **Production and Consumption of Beef.**—The production of beef in Australia during the year 1931-32 was estimated at 773,760,000 lbs. The requirements of the local market absorbed 603,925,000 lbs., approximately 78 per cent., leaving a balance of 22 per cent., which was exported as frozen and canned beef. (See also § 1, 10 *ante*.)

8. **Export of Frozen Beef.**—The export of frozen meat from Australia dates from about the year 1881, and since that year the trade in frozen beef has grown considerably, the quantities and values exported during the past five years being as follow, viz. :— 1927-28, 169,098,425 lbs., £2,377,967; 1928-29, 189,090,357 lbs., £2,888,287; 1929-30, 156,748,665 lbs., £2,569,788; 1930-31, 155,630,647 lbs., £2,235,526, and 1931-32, 165,872,145 lbs., £2,087,829. (See Table § 1, No. 8.) The largest purchaser of Australian beef is the United Kingdom, which during the year 1931-32 took £1,598,010 worth, or about 76.5 per cent., of the total shipments. Other countries importing Australian beef were in order of importance Belgium, Egypt, Philippine Islands, Japan, Malaya (British), and Malta. These countries, together with the United Kingdom, accounted for 96.2 per cent. of the total exports.

Australia's distance from the chief markets of the world up to the present has required that meat should be exported in a frozen condition and this has placed Australia at a disadvantage in competition with South American countries. The preference for chilled beef in the United Kingdom coupled with the embargoes on imports by former importing countries has adversely affected the development of the beef industry in Australia. An average annual export of approximately 170 million lbs. or 75,000 tons has nevertheless been maintained. Investigations are being conducted by the Council for Scientific and Industrial Research in Australia and the Low Temperature Research Station at Cambridge in England into the problem of chilling beef in a manner that will permit of its transport over long distances. The future progress of the industry in Australia would appear to depend upon the successful solution of this problem coupled with the forwarding of regular supplies suited to the requirements of overseas consumers. During 1932-33 several trial shipments of beef amounting to more than 254,000 lbs. were made to the United Kingdom. The meat arrived in good condition, and valuable knowledge has been obtained which will be used to advantage in future consignments.

9. **Agreements Regarding Meat at the Ottawa Conference.**—A further stimulus to the Australian meat industry should result from the agreement reached in this connexion at the Imperial Economic Conference at Ottawa in August, 1932. Under the terms of the agreement the Government of the United Kingdom undertakes to regulate importations of foreign meat from 1st January, 1932, to 30th June, 1934, in accordance with the following Schedule :—

**STATEMENT SHOWING THE MAXIMUM QUANTITIES OF FOREIGN MEAT TO BE ALLOWED TO BE IMPORTED INTO THE UNITED KINGDOM DURING EACH QUARTER OF THE PERIOD 1ST JANUARY, 1933, TO 30TH JUNE, 1934, EXPRESSED AS PERCENTAGES OF THE QUANTITIES IMPORTED IN THE CORRESPONDING QUARTERS OF THE TWELVE MONTHS ENDED JUNE, 1932.**

Meat.	1933.				1934.	
	January-March.	April-June.	July-September.	October-December.	January-March.	April-June.
Frozen Mutton and Lamb ..	% 90	% 85	% 80	% 75	% 70	% 65
Frozen Beef (Carcasses and Boned Beef) .. ..	90	85	80	75	70	65
Chilled Beef .. ..	100	100	100	100	100	100

Australia undertakes to limit the export to the United Kingdom of frozen mutton and lamb during the year 1933 to a quantity equivalent to that exported during the year ended June, 1932, viz., 165,282,000 lbs., while the export of frozen beef will not be increased during 1933 to an extent exceeding 10 per cent. of the quantity exported during 1931-32, viz., 165,872,000 lbs. Thereafter, no restriction will be placed upon the importation of any meat from Australia into the United Kingdom during the currency of the agreed programme. It is agreed that from 30th June, 1934, the regulation of the imports of foreign meat is to be continued until 1938, at the rates in force for the quarter ending June, 1934, unless a permanent policy is agreed upon as a result of consultations which are to take place during 1933 between the Governments of the United Kingdom and Australia. Details of imports of beef, mutton and lamb into the United Kingdom during the period 1927 to 1931 will be found in the tables hereafter.

10. Imports of Chilled and Frozen Beef into the United Kingdom.—The following statement shows the quantities and values of chilled and frozen beef imported into the United Kingdom during each of the five years 1927 to 1931.

**IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM.**

Country of Origin.	1927.	1928.	1929.	1930.	1931.
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**CHILLED—QUANTITY.**

	cwt.	cwt.	cwt.	cwt.	cwt.
Brazil .. .. .	76,832	329,225	332,656	506,976	598,664
Uruguay .. .. .	336,831	589,659	795,465	866,685	778,437
Argentina .. .. .	9,986,205	8,644,551	8,174,800	7,713,349	7,911,175
Other Foreign Countries .. .. .	2,920	..	1	..	..
British .. .. .	2,187	1,085	2,004	..	..
<b>Total Chilled</b> .. .. .	<b>10,404,975</b>	<b>9,564,520</b>	<b>9,304,926</b>	<b>9,087,010</b>	<b>9,288,276</b>

**CHILLED—VALUE.**

	£	£	£	£	£
Brazil .. .. .	188,951	812,048	881,278	1,276,361	1,160,043
Uruguay .. .. .	717,738	1,456,834	2,075,707	2,197,906	1,589,591
Argentina .. .. .	21,893,115	22,260,448	22,275,517	20,248,423	17,384,571
Other Foreign Countries .. .. .	7,452	..	4	..	..
British .. .. .	4,693	2,244	4,121	..	..
<b>Total Chilled</b> .. .. .	<b>22,811,949</b>	<b>24,531,574</b>	<b>25,236,627</b>	<b>23,722,690</b>	<b>20,134,205</b>

**FROZEN—QUANTITY.**

	cwt.	cwt.	cwt.	cwt.	cwt.
United States of America .. .. .	6,190	166	173	..	..
Brazil .. .. .	59,087	68,820	50,636	106,271	83,477
Uruguay .. .. .	149,824	94,822	65,924	191,180	169,200
Argentina .. .. .	885,060	288,474	346,619	256,502	197,895
Other Foreign Countries .. .. .	2,474	..	24,268	..	486
Australia .. .. .	558,621	904,772	820,360	719,111	992,462
New Zealand .. .. .	189,879	331,508	77,969	230,876	220,317
Other British Countries .. .. .	1,424	121	7,347	11,133	1,288
<b>Total Frozen</b> .. .. .	<b>1,852,559</b>	<b>1,688,683</b>	<b>1,393,296</b>	<b>1,515,073</b>	<b>1,665,125</b>
<b>Grand Total</b> .. .. .	<b>12,257,534</b>	<b>11,253,203</b>	<b>10,698,222</b>	<b>10,602,083</b>	<b>10,953,401</b>

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM—*continued.*

Country of Origin.	1927.	1928.	1929.	1930.	1931.
FROZEN—VALUE.					
	£	£	£	£	£
United States of America ..	15,379	508	778	..	..
Brazil .. .. .	109,397	136,487	110,242	226,617	149,606
Uruguay .. .. .	316,294	225,884	169,468	476,559	349,300
Argentina .. .. .	1,822,828	680,191	869,126	664,586	410,853
Other Foreign Countries ..	6,010	..	54,037	..	877
Australia .. .. .	1,109,227	1,935,417	1,819,616	1,561,342	1,547,425
New Zealand .. .. .	370,010	681,685	171,623	496,784	320,691
Other British Countries ..	2,757	298	16,280	22,470	2,503
Total Frozen .. .. .	3,751,902	3,660,470	3,211,170	3,448,358	2,781,255
Grand Total .. .. .	26,593,851	28,192,044	28,447,797	27,171,048	22,915,460

## § 4. Sheep.

1. *Initiation of the Pastoral Industry.*—Fortunately for Australia, the suitability of its climate and general conditions for the production of a high class of wool was, at an early date in the history of its settlement, surmised and tested by Captain Macarthur, one of the pioneer sheep-breeders of New South Wales. To the energy of this enterprising pastoralist is due in large measure the rapid and extremely satisfactory development of Australia as a producer of fine wool, and, while it would appear that the introduction of the merino sheep into Australia was not due to Macarthur, a great deal of the credit for having successfully established the pastoral industry in Australia must certainly be his.

2. *Distribution throughout Australia.*—With the exception of a short period in the early 'sixties, when the flocks of Victoria outnumbered those of the mother State, New South Wales has maintained the premier position in sheep-raising. Within its borders is contained generally one half of the sheep of Australia, and in the years 1924 to 1927 even this high percentage was exceeded.

Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph accompanying this Chapter. Five marked periods of decline depleted the numbers at successive intervals, but these gaps were quickly restored. Since 1925 the sheep flocks have exceeded 100 millions, reaching 104,558,342 in 1929, and 110,568,279 in 1930, the latter figure constituting a record eclipsing the previous record of 106.4 millions in 1891. At no previous period have such large numbers been depastured continuously, and the development has taken place notwithstanding an annual slaughter of some ten to fifteen million sheep and lambs for the mutton and lamb trade.

The number of sheep in the several States and Territories for each year from 1928 to 1931 with an estimate for the year 1932 is as follows:—

## SHEEP.—NUMBERS.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Fed. Cap. Ter.	Total.
1928	450,184,950	16,498,222	18,509,201	7,079,947	8,943,002	2,000,605	7,635	2,207,211	103,430,773
1929	448,720,000	17,427,203	20,324,303	6,185,252	9,556,823	2,091,113	12,203	2,240,445	104,558,342
1930	453,366,000	16,477,995	22,542,043	5,980,959	9,882,761	2,119,606	15,838	2,183,077	110,568,279
1931	52,986,000	16,376,217	22,324,278	6,608,981	10,098,104	2,012,055	18,867	194,391	110,618,893
1932 <i>b</i>	53,000,000	17,512,394	21,312,865	7,713,236	10,404,981	2,000,000	20,000	200,000	112,163,476

(a) 30th June year following.

(b) Estimate as at 31st December, 1932.

3. **Proportion in the Several States and Territories.**—Apart from the effect of drought the relative numbers of sheep depastured in the different States show little change. The most noteworthy alteration was a loss of 2.20 per cent. in New South Wales and a gain of 3.67 per cent. in Queensland during 1931 as compared with 1927.

The percentage distribution in 1931 was :—New South Wales, 47.90; Victoria, 14.81; Queensland, 20.18; South Australia, 5.98; Western Australia, 9.13; Tasmania, 1.82; Federal Capital Territory, 0.18 per cent.

4. **Comparison with other Countries.**—As regards the size of its flocks, and the quantity and quality of wool produced, Australia has long occupied a leading position amongst the sheep-raising countries of the world. The following figures taken mainly from the Year Book of the International Institute of Agriculture represent the latest returns available in regard to the number of sheep in the principal wool-producing countries. The leading position is held by Australia, with more than 110 millions, followed by the Soviet Republics, with 80 millions, the United States with 54 millions and the Union of South Africa, 48 millions. In previous years the largest numbers were recorded in the Soviet Republics where a total of as high as 130 millions was shown, but in 1931 the number quoted by the International Institute of Agriculture was reduced to 80 millions, equal to a decline of over 50 millions. No explanation of this large decrease is available, but it is known that heavy slaughterings have occurred as a protest by the peasants to the intensification of the Soviet collectivization plan. Russian sheep are almost entirely coarse-woolled and the poor quality wool does not ordinarily figure in world trade. Efforts are being made, however, by the Soviet Government to improve the quality of the wool and the quantity shorn per fleece, and to this end merino sheep were imported from America and Germany in 1927. In 1928–29, and 1929–30, 2,031 and 5,006 sheep, valued at £6,017 and £13,606, respectively, were exported from Australia to Russia for breeding purposes. As pointed out in sub-paragraph 6 following, however, the export of stud sheep is now subject to control. The production of wool, in Russia, apparently, amounted to about 220 million lbs. only during the year 1931. This represents an average weight of fleece shorn of about 3 lb., which is considerably less than half of that obtained in Australia.

## SHEEP.—NUMBER IN VARIOUS COUNTRIES.

Country.	Date.	No. of Sheep (,000 omitted).	Country.	Date.	No. of Sheep (,000 omitted).
Australia .. ..	1931	110,619	Greece .. ..	1931	7,072
Soviet Republics ..	1931	79,500	French Morocco ..	1931	6,613
United States of America ..	1931	53,912	Chile .. ..	1930	6,263
Union of South Africa	1930	48,358	Iraq (a) .. ..	1931	5,464
India (British and Native) .. ..	1930	44,628	Bolivia .. ..	1931	5,232
Argentine Republic ..	1930	44,413	Persia .. ..	1931	4,942
New Zealand .. ..	1931	29,793	Algeria .. ..	1931	4,671
United Kingdom ..	1931	26,374	Portugal .. ..	1925	3,721
Uruguay .. ..	1930	20,558	Canada .. ..	1931	3,608
Spain .. ..	1931	20,047	Irish Free State ..	1931	3,575
Rumania .. ..	1931	12,356	Germany .. ..	1931	3,499
Turkey .. ..	1931	11,762	Kenya .. ..	1930	3,227
Peru .. ..	1929	11,209	Syria and Lebanon ..	1931	2,969
Italy .. ..	1930	9,896	Basutoland .. ..	1931	2,829
France .. ..	1931	9,845	Mexico .. ..	1926	2,698
French Equatorial and West Africa ..	1931	9,766	Poland .. ..	1931	2,599
Bulgaria .. ..	1926	8,739	Somaliland .. ..	1931	2,500
Yugoslavia .. ..	1931	8,426	Tunis .. ..	1931	2,475
Brazil .. ..	1920	7,933	Sudan (Anglo-Egyptian) ..	1931	2,250
			Nigeria .. ..	1931	2,250
			Tanganyika Territory	1931	2,233

(a) Including goats.



5. **World's Totals.**—The number of sheep in the various great divisions of the world has been estimated by the International Institute of Agriculture, and a comparison has been made with pre-war estimates. In the table below the results are shown, the totals being subject to the limitations noted for other classes of live stock. (See § 2, 6 *ante*.)

## SHEEP.—WORLD'S TOTALS.

Continents, etc.	Number at the date nearest—		Increase (+) or Decrease (–) in 1929.	
	1913.	1929.	Actual Figures.	Percentages.
	,000	,000	,000	%
Europe (excluding the U.S.S.R.) ..	126,999	123,900	– 3,099	– 2.4
United Socialist Soviet Republics	111,051	132,800	+ 21,749	+19.5
North and Central America ..	43,148	55,700	+ 12,552	+29.1
South America .. ..	100,392	102,500	+ 2,108	+ 2.1
Asia (a) .. ..	41,802	65,900	+ 24,098	+55.5
Africa .. ..	76,583	100,300	+ 23,717	+30.9
Oceania .. ..	109,331	133,700	+ 24,369	+22.2
<b>Total .. ..</b>	<b>609,306</b>	<b>714,800</b>	<b>+ 105,494</b>	<b>+20.1</b>

(a) Excluding U.S.S.R., China and Persia.

6. **Oversea Imports and Exports of Sheep.**—As in the case of cattle, the oversea exports of live sheep from Australia are of comparatively small importance. During the past five years the principal consignments of ordinary sheep have been made to Malaya (British) from the State of Western Australia. The purchases by buyers from New Zealand, South Africa, Russia and Japan at the Australian Stud Sheep Sales during recent years opened up a regular export trade with these countries in stud sheep. On the 27th November, 1929, however, the export of stud sheep was prohibited, except with the approval of the Minister for Trade and Customs. Consequently exports declined during 1931–32, and amounted to 297 sheep only valued at £1,702, as compared with 6,389 valued at £32,933 in 1929–30. The following table shows the imports and exports of stud and ordinary sheep for the years 1927–28 to 1931–32 :—

## SHEEP.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1927–28 ..	3,045	12,417	33,916	52,929	30,871	40,512
1928–29 ..	3,764	17,797	33,309	61,244	29,545	43,447
1929–30 ..	2,908	23,278	41,672	58,959	38,764	35,681
1930–31 (a) ..	1,417	10,868	27,478	14,214	26,061	3,346
1931–32 (a) ..	1,566	8,326	48,697	16,822	47,131	8,496

(a) Australian currency values.

7. **Sheep Slaughtered.**—The number of sheep slaughtered in the several States during each of the years from 1927 to 1931 was as follows:—

## SHEEP (INCLUDING LAMBS) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Nor. Ter.	Fed. Cap. Ter.(a)	Total.
1927..	5,009,511	4,732,494	660,742	1,209,608	784,349	328,671	..	22,507	12,756,882
1928..	4,967,835	5,286,642	805,461	1,263,352	807,510	331,820	..	20,384	13,483,004
1929..	6,326,925	6,024,702	1,089,978	1,242,835	861,785	341,527	644	23,026	15,911,422
1930..	6,254,436	5,745,475	1,671,245	1,308,976	994,813	363,329	540	23,911	16,362,725
1931..	6,894,961	5,678,252	1,761,974	1,378,931	1,038,672	399,904	540	23,448	17,176,682

(a) Year ended 30th June year following.

8. **Production and Consumption of Mutton and Lamb.**—The production of mutton and lamb during the year 1931–32 amounted to 688,300,065 lb., of which 521,697,830 lb., or 76 per cent., was consumed locally, leaving a balance of 24 per cent. for exportation. See also § 1, No. 10.

9. **Exports of Frozen Mutton and Lamb.**—The export trade in mutton and lamb preserved by cold process grew rapidly, until in 1913, the year immediately before the war, the value of the shipments amounted to nearly £3,000,000. The exports fell away considerably during the war years, but a record export of 246,971,346 lbs., valued at £5,482,564, was made in 1919–20, and in 1922–23 the shipments were valued at £4,321,917. Climatic conditions have since favoured a considerable output, and shipments have responded accordingly.

The quantity and value of the shipments during each of the past five years were as follow:—1927–28, 46,362,954 lb., £1,188,506; 1928–29, 84,929,176 lb., £2,166,043; 1929–30, 100,411,243 lb., £2,386,186; 1930–31, 109,253,195 lb., £2,105,963; 1931–32, 165,281,336 lb., £2,994,062. See Table § 1 No. 8.

As in the case of frozen beef, the principal customer in this trade is the United Kingdom, which absorbed 95 per cent. of the total quantity exported from Australia during the year 1931–32, while the balance was shipped mainly to Belgium, France and Malaya (British).

10. **Resolutions at Ottawa Conference.**—Reference has already been made to the agreement reached at the Imperial Economic Conference at Ottawa regarding the regulation of imports of meat into the United Kingdom. See § 3, 9 *ante*.

11. **Imports of Frozen Mutton and Lamb into the United Kingdom.**—The quantities and values of frozen mutton and lamb imported into the United Kingdom from various countries for the five years ending in 1931 are given in the following table, viz. :—

## IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.

Country of Origin.	1927.	1928.	1929.	1930.	1931.
MUTTON—QUANTITIES.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Soviet Union .. ..	..	1,152	..	..	..
China .. .. .	13,369	..	4,681	..	..
Chile .. .. .	182,742	223,693	192,017	202,715	125,907
Brazil .. .. .	1,690	1,421	26,168	11,588	1,799
Uruguay .. .. .	193,719	245,573	194,441	156,756	53,605
Argentina .. .. .	788,681	706,145	654,865	656,685	485,350
Other Foreign Countries ..	952	902	1,803	2,641	124
Total, Foreign .. ..	1,181,153	1,178,886	1,073,975	1,030,385	666,785

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—  
*continued.*

Country of Origin.	1927.	1928.	1929.	1930.	1931.
MUTTON—QUANTITIES.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Australia .. .. .	192,440	211,681	128,858	254,238	502,211
New Zealand .. .. .	1,047,682	962,891	883,789	1,172,262	1,105,105
Other British Countries .. .. .	6	311	125	1,305	3
Total, British .. .. .	1,240,128	1,174,883	1,012,772	1,427,805	1,607,319
Grand Total .. .. .	2,421,281	2,353,769	2,086,747	2,458,190	2,274,104

MUTTON—VALUE.					
	£	£	£	£	£
Soviet Union .. .. .	..	2,690	..	..	..
China .. .. .	29,587	..	10,922	..	..
Chile .. .. .	389,778	555,282	440,917	335,882	203,360
Brazil .. .. .	3,405	3,941	56,985	29,466	3,038
Uruguay .. .. .	434,838	590,242	486,818	366,746	103,301
Argentina .. .. .	1,760,080	1,838,331	1,693,863	1,594,543	952,349
Other Foreign Countries .. .. .	2,045	2,504	4,536	5,912	244
Total, Foreign .. .. .	2,619,733	2,992,990	2,694,041	2,332,549	1,262,292
Australia .. .. .	402,108	530,911	293,478	552,149	810,537
New Zealand .. .. .	2,727,274	2,708,136	2,360,940	2,699,759	2,033,978
Other British Countries .. .. .	8	721	347	3,752	8
Total, British .. .. .	3,129,390	3,239,768	2,654,765	3,255,660	2,844,523
Grand Total .. .. .	5,749,123	6,232,758	5,348,806	5,588,209	4,106,815

LAMB—QUANTITIES.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Iceland .. .. .	6,775	8,383	10,980	16,910	18,097
United States .. .. .	2,154	208	1,595	2,443	..
Chile .. .. .	92,723	128,528	139,151	152,052	113,992
Brazil .. .. .	2,994	723	1,002	15,785	10,362
Uruguay .. .. .	123,533	157,823	172,316	266,571	230,695
Argentina .. .. .	747,802	805,323	890,297	795,358	1,067,959
Other Foreign Countries .. .. .	..	14	1,105	182	280
Total, Foreign .. .. .	975,981	1,101,002	1,216,446	1,249,301	1,441,385
Australia .. .. .	432,377	334,846	464,632	555,932	1,027,134
New Zealand .. .. .	1,679,290	1,831,914	1,862,298	2,120,580	2,364,656
Other British Countries .. .. .	88	236	785	905	..
Total, British .. .. .	2,111,755	2,166,996	2,327,715	2,677,417	3,391,790
Grand Total .. .. .	3,087,736	3,267,998	3,544,161	3,926,718	4,833,175

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—  
*continued.*

Country of Origin.	1927.	1928.	1929.	1930.	1931.
<b>LAMB—VALUE.</b>					
	£	£	£	£	£
Iceland .. .. .	24,632	34,864	31,026	50,177	45,310
United States .. .. .	7,320	1,046	5,317	8,761	..
Chile .. .. .	324,430	488,993	510,295	443,906	274,645
Brazil .. .. .	8,722	2,392	3,429	51,500	24,319
Uruguay .. .. .	376,436	511,805	573,966	820,209	603,981
Argentina .. .. .	2,475,284	2,834,450	3,077,313	2,519,074	2,806,270
Other Foreign Countries .. .. .	..	125	5,194	634	687
<b>Total, Foreign .. .. .</b>	<b>3,216,824</b>	<b>3,873,675</b>	<b>4,206,540</b>	<b>3,894,261</b>	<b>3,755,212</b>
Australia .. .. .	1,556,658	1,284,660	1,725,152	1,933,600	2,785,113
New Zealand .. .. .	6,904,046	7,950,598	7,664,459	8,232,156	7,600,524
Other British Countries .. .. .	426	737	4,007	3,339	..
<b>Total, British .. .. .</b>	<b>8,461,130</b>	<b>9,235,995</b>	<b>9,393,618</b>	<b>10,169,095</b>	<b>10,385,637</b>
<b>Grand Total .. .. .</b>	<b>11,677,954</b>	<b>13,109,670</b>	<b>13,600,158</b>	<b>14,063,356</b>	<b>14,140,849</b>

### § 5. Wool.

1. **General.**—Australia is the leading wool-growing country in the world. With less than one-sixth of the world's sheep, Australia produced in 1931-32, one-quarter of the world's supply. Moreover, half of the world's production of fine quality merino wool is produced in Australia. The bulk of the production is exported, but with the greater activity of Australian woollen mills the quantity used locally is increasing, nevertheless the amount so used represents under 6 per cent. of the total production.

The important position held by Australia among the principal sheep and wool producing countries of the world is more clearly shown in the following table :—

#### SHEEP AND WOOL—PRINCIPAL PRODUCING COUNTRIES.

Country.	Year.	No. of Sheep (in millions).	Wool Production (in millions of lb., greasy).
Australia .. .. .	1931-32	110.6	1,006.6
United States .. .. .	1931	53.9	435.0
Soviet Republics .. .. .	1931	79.5	386.0
South Africa .. .. .	1930	48.3	335.0
Argentina .. .. .	1930	44.4	333.0
New Zealand .. .. .	1931-32	28.7	282.8

2. **Value.**—Wool is the chief factor in the pastoral wealth of Australia, and the nation's prosperity is largely dependent upon the satisfactory sale of the clip. The heavy decline in the price of wool which commenced in 1929-30 continued during the season 1931-32 and its effect upon the national income is reflected in the following figures. Based on the average auction room price of greasy wool the output for the season 1931-32 was valued at £35,073,500 compared with £44,222,000 in 1929-30; £70,833,000 in 1928-29, £81,430,000 in the record price year 1924-25, and £58,985,000, representing the average of the previous five seasons. The average auction room price of greasy wool declined from 16.44d. per lb. in 1928-29 to 10.29d. per lb. in 1929-30, to 8.36d. in 1930-31, to 8.46d. in 1931-32, and in 1932-33 an increase to 8.72d. per lb. was recorded, a fall of 47.0 per cent. since 1928-29. During the five years ending 1931-32 the export of wool averaged 43 per cent. of the value of the total shipments of merchandise from Australia, while during 1931-32 the proportion was 32.8 per cent.

3. **Greasy and Scoured Wool.**—Whether the weight of the wool clip should be stated as "in the grease" or as "scoured or washed" is a matter which seriously affects comparisons between the clips of different seasons and of different countries. The quantity of extraneous matter and grease in a fleece differs, not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, while it varies also with the breed and the condition of the sheep. There is, moreover, no clearly defined standard in regard to the cleanliness of wool described as scoured or washed. Consequently, any comparisons of the weight of the Australian clip for different years or seasons whether on a greasy or a scoured basis cannot be regarded as scrupulously exact. After extensive inquiry, however, by this Bureau it has been accepted that for the purpose of converting the Australian clip from the greasy to the clean category, the clean weight may be estimated at 46.15 per cent. of the greasy weight; in other words, 2½ lb. of greasy wool are equivalent to 1 lb. of clean wool.

The quantity of scoured or washed Australian wool exported during the last five years was approximately 13 per cent. of the total wool exports regarded as "greasy".

4. **Production.**—(i) *Quantity.* The bulk of the Australian wool production is shorn from live sheep. Approximately 6 per cent. is obtained by fellmongering and about 4 per cent. is on exported skins. Statistics of wool production are compiled from data received from growers, fellmongers, etc. The following table gives the production for each of the past five seasons:—

#### WOOL.—TOTAL PRODUCTION.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	lb.	lb.	lb.	lb.	lb.
New South Wales(a) ..	443,860,000	484,753,597	461,852,890	428,752,210	503,275,416
Victoria ..	148,503,795	179,854,306	160,662,578	146,862,612	159,721,916
Queensland ..	136,544,333	150,108,044	161,087,873	182,061,407	184,716,462
South Australia ..	78,369,918	74,616,004	67,300,881	63,478,524	67,021,312
Western Australia ..	67,549,734	63,890,984	72,562,594	76,951,500	77,985,741
Tasmania ..	13,272,000	14,900,000	14,100,000	14,100,000	13,875,000
Northern Territory(b)	30,000	30,000	30,000	35,000	35,000
Total ..	888,129,780	968,152,935	937,596,816	912,141,253	1,006,630,847

(a) Including Federal Capital Territory.

(b) Approximate figures.

(ii) *Estimate for 1932-33.* Although the returns are not yet complete, the total wool production of the Commonwealth during 1932-33 is estimated at 1,028,000,000 lb., valued at approximately £37,350,000 or 8.72d. per lb. in Australian currency.

5. **Care Needed in Comparing Clips.**—In comparing successive clips, allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

6. **World's Wool Production.**—The following table compiled from the report of the Textile Division of the United States Department of Commerce shows the importance of Australia as a wool-producing country. Out of a total world production of 3,828 million lb. in 1931, Australia's share amounted to over 912 million lb., or nearly 25 per cent.

**WOOL (a).—WORLD'S PRODUCTION.**

(In millions of lb.)

Countries.	Average Annual Pre-War Production.(b)	Production.				
		1927.	1928.	1929.	1930.	1931.(c)
<b>North America—</b>						
United States ..	314.1	328.1	351.0	363.5	397.9	435.0
Canada ..	11.2	18.7	19.6	21.4	21.2	20.4
Mexico ..	7.0	2.0	1.3	1.3	12.4	6.6
<b>Total ..</b>	<b>332.3</b>	<b>348.8</b>	<b>371.9</b>	<b>386.2</b>	<b>431.5</b>	<b>462.0</b>
<b>Central America and West Indies ..</b>	<b>1.0</b>	<b>0.7</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>
<b>South America—</b>						
Argentine Republic	358.7	331.0	342.3	323.4	333.3	333.0
Brazil ..	35.0	26.4	24.2	24.2	24.2	24.2
Chile ..	17.4	35.0	33.0	32.5	30.0	26.7
Peru ..	9.9	10.0	10.0	10.3	10.3	12.1
Uruguay ..	157.0	130.0	135.0	135.0	140.0	110.0
All other ..	9.3	20.3	17.1	19.8	8.1	9.1
<b>Total ..</b>	<b>587.3</b>	<b>552.7</b>	<b>561.6</b>	<b>545.2</b>	<b>545.9</b>	<b>515.1</b>
<b>Europe—</b>						
Austria ..	15.4	1.2	0.8	0.9	0.8	0.8
Belgium ..	1.0	0.8	0.8	0.8	0.8	1.2
Bulgaria ..	23.7	22.0	21.5	22.9	22.0	21.6
Czechoslovakia ..	..	3.4	3.3	3.3	3.3	3.3
Denmark ..	3.5	3.2	2.6	3.0	2.6	2.6
Estonia ..	..	2.4	1.9	1.5	1.5	1.5
Finland ..	..	5.0	5.0	4.3	4.5	4.5
France ..	80.7	47.4	49.6	44.0	46.3	43.0
Germany ..	52.0	38.5	31.9	34.7	35.0	32.4
Greece ..	14.0	17.5	16.6	16.6	19.0	17.6
Hungary ..	17.6	16.5	11.5	6.1	6.2	11.0
Iceland ..	2.0	(d)	(d)	(d)	(d)	(d)
Italy ..	55.0	55.8	49.5	37.5	33.0	28.6
Netherlands ..	3.6	4.0	4.0	4.4	3.5	2.5
Norway ..	8.2	6.2	5.5	5.5	5.5	5.5
Poland ..	7.1	4.3	9.8	8.8	9.9	10.4
Portugal ..	10.0	6.0	6.3	5.1	6.6	6.6
Rumania ..	13.2	55.0	55.0	55.0	53.0	44.0
Russia ..	320.0	237.1	370.3	384.2	384.3	386.0
Spain ..	72.0	104.5	100.0	99.0	75.0	108.0
Sweden ..	2.9	2.2	1.6	1.3	1.3	1.2
Switzerland ..	1.0	0.7	0.9	0.9	0.9	0.9
Turkey ..	28.0	..	..	..	..	..
United Kingdom ..	134.0	117.7	106.1	117.8	152.6	156.0
Irish Free State ..	..	12.8	13.6	14.5	14.7	15.0
Yugoslavia ..	25.4	37.4	30.0	30.0	30.0	26.8
All other ..	..	7.8	7.3	9.9	9.5	10.7
<b>Total ..</b>	<b>890.3</b>	<b>809.4</b>	<b>905.4</b>	<b>912.0</b>	<b>921.8</b>	<b>941.7</b>

(a) Computed on "greasy" basis. (b) Average for years 1909 to 1913 inclusive. (c) Where 1931 figures were not obtainable, an earlier figure or an unofficial estimate has been inserted. (d) Included with Denmark.

WOOL.—WORLD'S PRODUCTION—*continued.*

(In millions of lb.)

Countries.	Average Annual Pre-War Production.	Production.				
		1927.	1928.	1929.	1930.	1931.
<b>Asia—</b>						
British India ..	60.0	55.0	70.0	70.0	70.0	71.0
China ..	50.0	60.0	55.5	55.5	55.5	70.0
Persia ..	12.1	18.0	14.0	45.0	45.0	48.8
Russia in Asia ..	60.0	79.5	(e)	(e)	(e)	(e)
Turkey in Asia ..	90.0	11.3	11.0	7.7	59.9	60.0
All other ..	1.0	52.0	56.6	51.6	52.0	51.0
<b>Total ..</b>	<b>273.1</b>	<b>275.8</b>	<b>207.1</b>	<b>229.8</b>	<b>282.4</b>	<b>300.8</b>
<b>Africa—</b>						
Algeria ..	35.2	36.8	38.8	43.0	48.0	35.3
British South Africa ..	165.9	240.0	285.0	312.0	337.0	335.0
Tunis ..	3.7	5.7	3.1	3.8	8.8	8.8
Morocco ..	14.9	38.7	21.6	21.7	23.1	30.9
All other ..	30.0	29.3	18.4	19.5	20.4	20.6
<b>Total ..</b>	<b>249.7</b>	<b>350.5</b>	<b>366.9</b>	<b>400.0</b>	<b>437.3</b>	<b>430.6</b>
<b>Oceania—</b>						
Australia ..	741.4	924.4	888.1	968.2	937.6	912.1
New Zealand ..	198.5	202.4	235.6	222.5	241.8	266.0
<b>Total ..</b>	<b>939.9</b>	<b>1,126.8</b>	<b>1,123.7</b>	<b>1,190.7</b>	<b>1,179.4</b>	<b>1,178.1</b>
<b>Total all other Countries</b>	<b>13.0</b>	<b>15.0</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>
<b>GRAND TOTAL</b>	<b>3,286.6</b>	<b>3,479.7</b>	<b>3,536.6</b>	<b>3,663.9</b>	<b>3,798.3</b>	<b>3,828.3</b>

(e) Included with Russia in Europe. (See also notes on preceding page.)

7. **Wool Locally Used.**—The quantity of wool used locally, so far as can be ascertained, is shown in the following table. Precise details of consumption are difficult to obtain, but the quantities shown hereunder should closely approximate the truth.

## WOOL.—ESTIMATED CONSUMPTION OF GREASY WOOL—AUSTRALIA.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	lb.	lb.	lb.	lb.	lb.
Wool Consumption — in terms of Greasy ..	42,905,118	51,130,028	56,499,906	46,523,514	66,771,374

8. Export of Wool.—(i) *Greasy—Quantities.* Of the total weight of greasy wool shipped overseas during the past five years nearly 30 per cent. was sent to the United Kingdom, as compared with 38 per cent. dispatched in pre-war years. The other leading consignees since 1928–29 were France, Japan, Germany, Belgium, Italy and the United States of America, the principal continental countries taking 49.4 per cent., and America and Japan 19.6 per cent. of the total shipments. The following table shows the quantities of “greasy” wool exported, and the principal countries of destination :—

WOOL IN THE GREASE.—EXPORTS, AUSTRALIA.

Country to which Exported.	Average, Five Years, 1909–13.	1928–29.	1929–30.	1930–31.	1931–32.	Average for Five Years ending 1931–32.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	212,004,088	212,035,141	202,438,310	228,196,396	256,845,443	219,124,306
France ..	149,835,946	172,006,450	172,783,716	147,453,999	116,355,296	149,902,598
Japan ..	7,262,683	101,092,258	83,243,431	151,201,649	185,672,264	125,521,804
Germany ..	106,344,666	99,933,251	94,962,530	104,320,246	80,565,488	95,036,734
Belgium ..	55,143,706	99,095,826	80,764,804	74,488,232	63,822,477	78,960,821
United States of America	15,486,447	19,154,235	19,346,569	20,378,195	9,362,688	19,066,213
Italy ..	4,381,197	40,104,242	35,582,700	37,724,169	56,740,272	40,968,495
Netherlands ..	(a)	296,051	770,940	956,029	461,462	517,017
India ..	425,547	1,404,596	948,394	466,704	673,314	854,267
Canada ..	126,653	270,921	310,185	23,735	102,134	176,837
Other Countries ..	5,830,377	17,346,556	8,249,325	3,759,976	4,626,184	9,027,861
Total ..	556,841,340	763,339,527	699,400,904	768,969,330	775,227,022	739,156,953

(a) Included in Other Countries.

(ii) *Scoured and Washed—Quantities.* The exports of “scoured and washed” wool during the period shown were as follow :—

WOOL, SCOURED AND WASHED (a).—EXPORTS, AUSTRALIA.

Country to which Exported.	Average Five Years 1909–13.	1928–29.	1929–30.	1930–31.	1931–32.	Average for Five Years ending 1931–32.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	32,032,577	24,818,010	26,859,655	23,762,729	33,355,887	25,607,843
France ..	16,068,910	5,463,934	6,331,892	6,206,301	5,371,571	6,513,368
Japan ..	1,888,161	1,972,525	1,333,763	2,334,505	2,508,758	2,268,875
Belgium ..	7,528,058	6,987,612	4,382,722	5,255,927	6,007,231	5,780,085
Germany ..	12,310,967	3,534,812	3,964,028	5,174,277	4,883,080	4,912,068
United States of America	66,156	875,775	585,093	376,543	356,088	598,253
Canada ..	(b)	614,677	440,097	1,091,112	1,599,432	806,743
Italy ..	265,442	544,585	336,770	616,790	2,664,242	911,533
Netherlands ..	(b)	12,718	12,590	24,995	208,112	56,414
India ..	59,684	174,272	354,569	459,440	549,272	310,973
Other Countries ..	127,155	2,202,143	342,720	355,390	385,984	2,148,140
Total ..	70,347,110	47,201,063	44,944,799	45,658,009	57,889,666	49,911,295

(a) Including “tops.”

(b) Included with Other Countries.

The figures for “scoured and washed wool” include tops as follow :—in 1927–28, 2,559,159 lb., valued at £488,199; in 1928–29, 872,774 lb., valued at £166,957; in 1929–30, 552,152 lb., valued at £87,871; in 1930–31, 1,033,913 lb., valued at £114,035, and in 1931–32, 2,170,330 lb. valued at £248,055. See also § 1 No. 8. The total exports of wool tops during the last five years amounted to 7,188,328 lb., valued at £1,105,027, of which 3,027,241 lb., or more than 42 per cent., were shipped to Japan.



(iii) *Total Value of Exports.* The total value of the wool exported from Australia to the principal countries during the periods under review was as follows :—

**WOOL EXPORTS.—TOTAL VALUE, AUSTRALIA.**

Country to which Exported.	Average Five Years 1909-13.	1928-29.	1929-30.	1930-31.	1931-32.	Average for Five Years ending 1931-32.
	£	£	£	£	£	£
United Kingdom ..	10,608,967	19,947,694	12,648,045	10,257,653	11,841,995	14,937,837
France ..	6,494,832	11,865,744	8,075,006	5,479,746	4,004,983	8,277,191
Japan ..	516,528	8,693,195	4,434,746	6,478,587	7,513,519	7,487,379
United States of America ..	795,328	1,883,155	1,154,433	1,117,533	542,728	1,560,612
Germany ..	5,131,282	7,773,780	4,626,041	4,165,020	3,223,083	5,773,713
Belgium ..	2,546,915	6,434,323	3,316,902	2,623,906	2,284,555	4,169,151
Italy ..	202,434	3,019,802	1,641,166	1,482,943	2,174,633	2,252,530
Netherlands ..	(a)	27,411	44,061	41,616	36,651	32,653
Canada ..	6,765	113,926	82,850	109,280	178,703	112,779
India ..	22,308	110,802	74,292	41,839	64,638	68,919
Other Countries ..	267,283	1,745,413	502,968	205,182	237,408	1,011,051
<b>Total ..</b>	<b>26,592,642</b>	<b>61,615,245</b>	<b>36,600,510</b>	<b>32,003,305</b>	<b>32,102,896</b>	<b>45,683,815</b>

(a) Included with Other Countries.

9. *Average Export Value.*—The following table shows the average values per pound of Australian wool according to the export returns for the periods indicated. The values are based on the auction room price plus the cost of placing the wool on board ship.

**AUSTRALIAN WOOL.—EXPORT VALUE PER POUND.**

Description.	Average Five Years 1909-13.	Average Five Years 1923-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average Five Years 1929-33.
	d.	d.	d.	d.	d.	d.	d.	d.	d.
Greasy	9.40	20.42	20.49	17.58	11.30	9.16	8.97	9.07	11.16
Scoured	16.36	28.15	31.87	28.72	19.34	13.56	12.14	12.95	16.73

10. *Average Market Value.*—The following table gives details of the average price in Australia of greasy and scoured wool as compiled by the National Council of Wool-selling Brokers. In the matter of greasy wool the margin between the values shown and those of the previous table represents the cost of placing the wool on board ship. This cost includes delivery from store to ship, wharfage, buyers' commission, handling charges, and insurance after sale.

**WOOL.—AVERAGE MARKET VALUE PER LB.**

Description.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	d.	d.	d.	d.	d.	d.	d.
Greasy ..	16.86	19.50	16.44	10.29	8.36	8.46	8.72
Scoured ..	27.99	32.21	28.12	18.69	13.74	12.65	14.08

11. *Exports and Local Sales of Wool.*—Approximately 90 per cent. of Australian wool is now disposed of locally prior to export. Buyers from the United Kingdom, France, Belgium, Germany, and other European countries, and from America, Japan, China, and India, attend the sales conducted in Sydney, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Hobart, and Launceston. Particulars regarding exports and local sales, as well as quantities and proportions of the various descriptions of wool marketed in each State, will be found in the Production Bulletins issued by this Bureau.

12. **The Wool Market.**—(i) *The 1931-32 Season.* The season 1931-32 was the third consecutive year of extremely low values. Average auction prices were 16.44d. per lb. in 1928-29, compared with 10.29d. in 1929-30, 8.36d. in 1930-31, a fall of 49.15 per cent. In 1931-32, however, there was an increase to 8.46d., but this figure is too low to be remunerative to growers. Measured in terms of Australian, Sterling, and Gold currencies the approximate value of greasy wool per lb. was as follows:—

**AVERAGE VALUE OF GREASY WOOL PER LB.—AUSTRALIA.**

Year.	Australian Currency.	Sterling.	Gold Prices.
	d.	d.	d.
1928-29 .. ..	16.44	16.44	16.44
1929-30 .. ..	10.29	10.29	10.29
1930-31 .. ..	8.36	6.96	6.96
1931-32 .. ..	8.46	6.69	5.10
1932-33 .. ..	8.72	6.98	4.84

The average values shown in sterling and gold currencies have been calculated by converting the average prices shown in Australian currencies on the basis of the average rate of exchange between the months of September and June in each year. Though not exact these results will suffice for general purposes. The estimated value of the total wool production for the season 1931-32 was £35,073,500 as compared with £34,803,500 in 1930-31, and £81,430,000 during the record year of 1924-25.

During the year 2,713,846 bales were sold, compared with 2,481,255 bales in the previous year. The average return per bale was 4s. 5d. less than the previous year, while the aggregate realized £29,642,868 as against £60,873,662 in 1927-28.

During the year 1931-32 the number of bales sold in Australia was 2,713,846 as against 2,481,255 bales in the previous year and 2,411,373 bales in 1927-28. The amounts realized at the sales in these years were, respectively 1931-32, £29,642,868; 1930-31, £27,645,745; and in 1927-28 which was the record year for aggregate values, £60,873,662.

(ii) *Wool Realization Scheme.* The affairs of the British-Australian Wool Realization Association have been liquidated and consequently references to its operations which appeared in previous Year Books are not repeated in this issue.

13. **United Kingdom Importation of Wool.**—The appended statement of the quantity and value of wool imported into the United Kingdom during the year 1931 from the principal wool-producing countries shows the important position which Australia occupies in the supply of wool to the mother country:—

**WOOL (a).—IMPORTS, UNITED KINGDOM, 1931.**

Country from which imported.	Quantity.	Value.	Country from which imported.	Quantity.	Value.
	lb.	£		lb.	£
Australia ..	289,969,400	11,801,012	Other British Possessions..	3,806,700	115,583
New Zealand ..	188,381,500	8,246,548	Peru ..	3,048,200	103,957
Union of South Africa ..	130,994,300	5,544,671	Belgium ..	2,088,700	100,885
Argentine Republic ..	94,346,600	2,320,716	Germany ..	1,896,500	79,451
Uruguay ..	38,517,900	1,141,360	Falkland Islands	1,395,700	48,750
India ..	35,806,300	1,034,819	Persia ..	645,700	32,537
Chile ..	25,213,000	816,068	United States of America ..	510,800	13,782
France ..	19,016,500	908,918	Other Countries	5,077,300	186,200
Irish Free State	7,513,600	219,810			
			Total ..	848,228,700	32,715,067

(a) Greasy, Scoured, and Tops.

Of the importations of wool into the United Kingdom, Australian wool represented 34 per cent. of quantity and 36 per cent. of value, and New Zealand 22 per cent. of quantity and 25 per cent. of value. Altogether, 657,867,500 lb., valued at £27,011,193, were received from British Possessions, these figures being equivalent to 78 per cent. of the total weight and 83 per cent. of the total value of all wool imported.

14. *Inquiry into Wool Industry.*—(i) *General.* A Committee under the chairmanship of the Honorable John Gunn was appointed by the Commonwealth Government on the 15th August, 1932, to inquire into and report on the condition of the Australian Wool Industry. The report of the Committee was presented on the 24th November, 1932. The inquiry covered costs of production, prices, etc., and recommendations were made for the rehabilitation of the industry.

(ii) *Costs of Production.* Information relating to costs of production was obtained by the Committee from 668 returns covering the operations of representative properties in all States, these properties carrying altogether about 8 million sheep. From the returns received a sufficient number to represent typical conditions in different areas was selected and the following data are based on these selected returns. It is claimed in the Report that the figures given are representative of typical average costs on medium and large properties under the favourable seasonal conditions experienced in 1931. One member of the Committee, however, did not accept the conclusions arrived at in determining the cost of production, and his objections were set out in a separate statement. It should be noted that the costs quoted refer to the production of wool only, as distinct from stock and other station produce.

AVERAGE COSTS ATTRIBUTABLE TO WOOL ONLY.

	Per lb. of Wool.
Expenses of production—	<i>d.</i>
Working Expenses excluding all Interest .. .. .	6 $\frac{3}{4}$
Annual Maintenance and Average Drought Expenses .. .. .	1 $\frac{3}{4}$
Total Wool Expenses at Sheep Properties .. .. .	8 $\frac{1}{2}$
Add Rail Freight, Handling and Selling Charges .. .. .	1
Average Cost when sold .. .. .	9 $\frac{1}{2}$

The summary above does not take into account interest on borrowed capital or capital invested. This item at an average rate of interest of 5 per cent. on property valued at £3 per sheep area would amount to a further increase of 4 $\frac{1}{2}$ d. per lb. of wool making a total cost including all interest to the point of sale of 14d. per lb. No allowance has been made for management or the risk of investment in the industry.

(iii) *Prices.* Information regarding prices will be found on page 556, *ante*.

(iv) *Recommendations.* Recommendations were made by the Committee with a view to reducing the hiatus between cost and price. The recommendations refer, amongst other things, to reductions in rail freights, State Government charges generally, Land Tax (Commonwealth and State), Private Business Charges generally. Interest Rates, Handling and Selling Charges. The Committee also recommended (a) the formation of a Commonwealth Wool Executive, consisting of representatives of the wool-growers and wool-selling brokers, and (b) that the Commonwealth Government, by regulation or otherwise, should take to itself power to prohibit the export of wool, except on such conditions as may be prescribed, provided that such power should not be exercised except upon request of the Commonwealth Wool Executive.

Relief from those charges which come within the jurisdiction of the Commonwealth Government has been effected and efforts have been directed to give effect to the other recommendations as far as possible.

### § 6. Trade in Hides and Skins.

1. **Extent of Trade.**—In addition to the hides and skins treated locally, considerable quantities are exported, the value of Australian cattle and horse hides, and sheep and other skins sent overseas during the five years 1927–28 to 1931–32 amounting to £31,746,926, or an average of £6,349,385 per annum.

2. **Sheepskins with Wool.**—Sheepskins with wool—the exports of which during the five years aggregated £15,114,330—constitute the largest item in the values referred to in the preceding paragraph. During the year 1931–32 France was the largest purchaser, taking 48.6 per cent. of the total consignments, while the United Kingdom ranked next with 26.2 per cent., followed by the United States with 14.6 per cent. The remaining 20 per cent. was shipped principally to Germany and Belgium. The exports of sheepskins with wool during each of the years from 1927–28 to 1931–32 were as follow :—

#### SHEEPSKINS WITH WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1927–28.	1928–29.	1929–30.	1930–31.	1931–32.	Average for 5 Years.
Number ..	10,829,913	10,910,516	12,562,384	12,016,672	9,146,335	11,093,164
Value £	4,410,702	4,544,827	3,103,558	1,949,048	1,106,195	3,022,866

3. **Sheepskins without Wool.**—Sheepskins without wool are exported chiefly to the United States of America and the United Kingdom. These two countries took 94 per cent. of the exports during the past five years, the purchases of the United States of America alone amounting to 49 per cent. of the total shipments. Quantities and values for the last five years are given in the table hereunder :—

#### SHEEPSKINS WITHOUT WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1927–28.	1928–29.	1929–30.	1930–31.	1931–32.	Average for 5 Years.
Number ..	553,170	514,302	673,221	280,128	131,276	430,419
Value £	42,447	44,001	53,415	13,612	3,643	31,424

4. **Hides.**—(i) *Exports.* The export trade in Australian cattle hides, which fell away during the war years, has again become important. Considerable quantities were shipped oversea during each of the last five years. In 1931–32 Italy took 26 per cent. of the total shipments, followed by the United Kingdom 23 per cent., Sweden 10 per cent., Finland and Japan each 9 per cent., and Germany 7 per cent.

The exports during the past five years are given in the table below :—

#### CATTLE HIDES.—EXPORTS, AUSTRALIA.

Particulars.	1927–28.	1928–29.	1929–30.	1930–31.	1931–32.	Average for 5 Years.
Number ..	1,003,220	829,780	754,846	752,366	293,890	726,820
Value £	1,690,908	1,331,486	794,991	610,720	212,539	928,129

Calfskins exported during the years 1927–28 to 1931–32 numbered 1,334,210, valued at £377,957, and were shipped mainly to the United States of America, the value of the skins taken by that country averaging 56.3 per cent. of the total exports during the past five years. The annual export of horse hides is very small, and averaged only 8,802 hides, valued at £5,497.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the average value during the past five years amounting to £332,939. New Zealand is the chief source of supply, and small quantities are obtained also from the Pacific Islands, France, and Italy. The number and value of cattle hides, including calfskins, imported into Australia during the five years 1927-28 to 1931-32 were as follow :—

**CATTLE HIDES.—IMPORTS, AUSTRALIA.**

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	Average for 5 Years.
Number ..	327,903	363,400	340,150	(a)	(a)	(a)
Value (b) £	419,345	570,416	401,793	169,165	157,057	343,555

(a) Not available.

(b) Australian currency values.

The number of horse hides imported into Australia is small. The value of imports during the last five years averaged £337.

5. *Other Skins.*—The exports of skins other than those mentioned in the preceding sub-sections are valued as follow :—

**OTHER SKINS.—EXPORTS, AUSTRALIA.**

Description.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	Average for Five Years ending 1931-32.
	£	£	£	£	£	£
Rabbit and Hare	2,492,522	2,630,295	1,526,242	570,240	488,736	1,541,607
Opossum ..	540,735	166,059	681,472	215,711	333,209	387,437
Kangaroo ..	200,781	207,532	193,385	127,932	96,997	165,326
Fox ..	140,301	132,771	115,241	47,787	56,435	98,507
Wallaby ..	42,184	87,299	38,714	25,012	7,848	40,211
Other ..	214,085	20,839	19,281	7,230	2,509	52,789
<b>Total ..</b>	<b>3,630,608</b>	<b>3,244,795</b>	<b>2,574,335</b>	<b>993,912</b>	<b>985,734</b>	<b>2,285,877</b>

The United States of America and the United Kingdom were the chief purchasers of these skins, as shown below :—

**OTHER SKINS.—AVERAGE EXPORTS TO UNITED STATES AND UNITED KINGDOM 1927-28 TO 1931-32.**

Description.	United Kingdom.	United States of America.
	£	£
Rabbit and Hare .. .. .	625,893	765,603
Opossum .. .. .	306,627	47,016
Kangaroo .. .. .	18,758	144,364
Fox .. .. .	67,340	22,360
Wallaby .. .. .	30,706	7,812
Other .. .. .	6,184	38,935
<b>Total .. .. .</b>	<b>1,055,508</b>	<b>1,026,090</b>

## CHAPTER XVIII.

### AGRICULTURAL PRODUCTION.

NOTE.—Except where otherwise stated, the "agricultural" years hereafter mentioned are taken as ending on 30th June.

#### § 1. Introductory.

Preceding issues of the Official Year Book contain a brief reference to the attempts at cultivation by the first settlers in New South Wales, and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813, and west of the Blue Mountains thereafter. (See No. 22, p. 670.)

#### § 2. Progress of Agriculture.

1. **Early Records.**—In an "Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797," Governor Hunter gives the acreage under crop as follows:—Wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres.

At a muster taken in 1808 the following was the return of crops:—Wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

By the year 1850 the area under crop had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850, the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area under crop declining from 491,000 acres in 1850 to 458,000 acres in 1854. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres. The largest increase took place in Victoria, which returned an area of 299,000 acres. For the same year South Australia had 264,000 acres in cultivation, Tasmania 229,000 acres, and New South Wales 223,000 acres.

2. **Progress of Cultivation.**—The following table shows the area under crop in each of the States and Territories of Australia at decennial intervals since 1860 and during each of the last six seasons:—

AREA UNDER CROP.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1860-1	246,143	387,283	3,353	359,284	24,705	152,860	..	..	1,173,628
1870-1	385,151	692,840	52,210	801,571	54,527	157,410	..	..	2,143,709
1880-1	606,277	1,548,809	113,978	2,087,237	63,902	140,788	..	..	4,560,991
1890-1	852,704	2,031,955	224,993	2,093,515	69,678	157,376	..	..	5,430,221
1900-1	2,446,767	3,114,132	457,397	2,369,680	201,338	224,352	..	..	8,813,666
1910-11	3,386,017	3,952,070	667,113	2,746,334	855,024	286,920	360	..	11,893,838
1920-21	4,465,143	4,489,503	779,497	3,231,083	1,804,987	297,383	296	1,966	15,069,858
1926-27	4,593,847	4,735,173	941,783	3,883,920	3,324,523	289,364	440	3,449	17,772,499
1927-28	4,998,272	4,942,258	1,066,613	4,192,167	3,720,100	296,875	570	2,539	19,219,394
1928-29	5,442,982	5,505,651	1,044,632	4,660,003	4,259,269	273,152	392	3,476	21,189,557
1929-30	5,500,946	5,579,258	1,046,235	4,966,916	4,566,001	265,317	609	4,439	21,929,721
1930-31	6,811,247	6,715,660	1,144,216	5,426,075	4,792,017	267,632	1,550	5,419	25,163,816
1931-32	5,108,554	5,407,109	1,216,402	5,219,870	3,961,459	247,353	1,030	5,123	21,166,900

The progress of agriculture was uninterrupted from 1860 until 1915-16, when, as the result of a special war effort to produce wheat Australia cultivated 18,528,234 acres. This effort however was not maintained and four years later the area under crop was down to 13,296,407 acres in 1919-20. When shipping tonnage again became available

and it was possible to dispose of the accumulated stocks of wheat the area planted rose to over 25 million acres in 1930-31, which is the largest area yet planted in Australia. The increase in acreage was almost entirely due to wheat. In 1931-32, however, the area planted dropped to 21,166,900 acres, a decrease of 4 million acres or 16 per cent. on the previous year. This large drop was merely a reversion to the normal area after the special effort of the previous year to respond to the slogan "Grow more wheat" to provide foreign exchange. Wheat is by far the most extensively grown crop in Australia, representing 70 per cent. of the total area under crop in 1931-32. Consequently changes in the area sown to wheat dominate the changes in the total area planted.

3. Artificially-sown Grasses.—In all the States there are considerable areas under artificially-grown grasses mainly sown on uncultivated land after burning off the scrub, and not included in "area under crops." These areas are however liable to revert to their natural state, and the information respecting them is too uncertain for formal record.

### § 3. Distribution, Production, and Value of Crops.

1. Distribution of Crops.—The following table gives the areas in the several States under each of the principal crops for the season 1931-32 :—

DISTRIBUTION OF CROPS, 1931-32.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat ..	3,682,945	3,565,872	248,783	4,071,370	3,158,888	11,722	..	1,733	14,741,313
Oats ..	151,600	439,626	1,364	206,470	267,894	18,412	..	123	1,085,489
Maize ..	106,047	15,714	147,669	7	11	..	..	..	269,448
Barley—									
Malting ..	4,268	51,193	1,701	224,387	9,670	7,845	..	10	299,074
Other ..	4,081	15,188	522	17,952	4,863	532	..	184	43,322
Beans and Peas	62	9,446	13	7,210	1,736	23,160	..	..	41,627
Rye ..	1,848	754	7	1,246	418	..	..	..	4,273
Other Cereals	19,574	..	..	..	137	..	..	..	19,711
Hay ..	612,150	955,839	59,601	539,076	381,447	84,307	..	2,260	2,634,680
Green Forage	367,346	119,006	309,957	58,604	101,370	23,024	..	724	930,031
Grass and other Seeds ..	..	3,278	4,150	1,177	..	1,114	..	..	9,719
Orchards and other Fruit Gardens ..	79,890	76,834	34,974	29,077	19,530	32,403	..	48	272,756
Vines—									
Productive ..	13,376	36,861	1,514	50,886	4,778	..	..	..	107,415
Unproductive	1,984	1,354	235	1,612	361	..	..	..	5,546
Market Gardens	6,655	19,786	778	1,726	3,123	660	..	33	32,761
Sugar Cane—									
Productive ..	8,272	..	233,304	..	..	..	..	..	241,576
Unproductive	7,647	..	76,514	..	..	..	..	..	84,161
Potatoes ..	17,637	69,929	12,248	5,996	4,895	36,390	..	8	147,103
Onions ..	84	5,306	518	405	90	..	..	..	6,403
Other Root Crops	1,432	3,782	1,049	602	538	6,353	20	..	13,776
Tobacco ..	2,869	12,191	1,289	959	348	72	10	..	17,733
Broom Millet ..	1,731	637	549	..	..	..	..	..	2,917
Pumpkins and Melons ..	3,070	996	13,376	338	666	..	..	..	18,446
Hops ..	..	167	..	1	..	868	..	..	1,036
Cotton—									
Productive ..	..	..	22,452	..	..	..	..	..	22,452
Unproductive	..	..	27,905	..	..	..	..	..	27,905
All other Crops	13,986	3,350	15,930	769	696	491	1,000	..	36,222
<b>Total Area ..</b>	<b>5,108,554</b>	<b>5,407,109</b>	<b>1,216,402</b>	<b>5,219,870</b>	<b>3,961,459</b>	<b>247,353</b>	<b>1,030</b>	<b>5,123</b>	<b>21,166,900</b>

2. Relative Areas of Crops in States and Territories.—Taking the principal crops, i.e., those cultivated to the extent of over 100,000 acres, the proportion of each in the various States and Territories on the total area under crop for the season 1931-32 is shown in the next table. In four of the States, viz., New South Wales, Victoria, South Australia, and Western Australia, wheat-growing for grain is by far the most extensive whilst hay is second in extent. In Victoria and Western Australia the oat crop occupies

third position, while green forage ranks third in New South Wales, and barley in South Australia. In Queensland the most extensive crops are sugar cane, wheat, maize, and green forage, and in Tasmania hay, oats, potatoes, and orchards and fruit gardens occupy the greatest area.

As pointed out previously, wheat is the main crop in Australia, the area thereunder for grain and hay representing in 1931-32 74 per cent. of the total area under cultivation.

## RELATIVE AREAS UNDER CROP, 1931-32.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	%	%	%	%	%	%	%	%	%
Wheat ..	72.09	65.95	20.45	78.00	79.74	4.74	..	33.83	69.64
Hay ..	11.98	17.68	4.90	10.33	9.63	34.08	..	44.12	12.45
Oats ..	2.97	8.13	0.11	3.96	6.76	7.44	..	2.40	5.13
Green Forage..	7.19	2.20	25.48	1.12	2.56	9.31	..	14.13	4.63
Maize ..	2.08	0.29	12.14	0.00	0.00	..	..	..	1.27
Barley ..	0.16	1.23	0.18	4.64	0.37	3.39	..	3.79	1.62
Orchards and Fruit Gardens	1.56	1.42	2.46	0.56	0.49	13.10	..	0.93	1.29
Sugar-cane	0.31	..	25.47	..	..	..	..	..	1.54
Potatoes ..	0.35	1.29	1.00	0.11	0.12	14.71	..	0.16	0.69
Vineyards	0.30	0.71	0.14	1.01	0.13	..	..	..	0.53
All other..	1.01	1.10	7.67	0.27	0.20	13.23	100.00	0.64	1.21
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

3. Area under Chief Crops, Australia.—The area under the chief crops during each of the last five seasons, together with averages for the decennial periods 1912-22 and 1922-32 are shown hereunder.

## AREA UNDER CHIEF CROPS.—AUSTRALIA.

Crop.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	Average, 1912-22.	Average, 1922-32.
	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.
Barley (a) ..	276	307	389	328	299	232	295
Maize ..	401	315	298	293	269	314	319
Oats ..	1,122	1,046	1,516	1,082	1,085	820	1,096
Rice ..	9.9	14.1	19.8	19.9	19.6	..	8.9
Wheat ..	12,279	14,840	14,977	18,165	14,741	9,327	12,702
Green Forage ..	1,389	860	977	845	980	639	941
Hay ..	2,632	2,739	2,659	3,323	2,635	2,913	2,929
Beans and Peas ..	64	48	50	42	42	39	48
Onions ..	8.7	8.6	8.9	7.4	6	7.6	7.5
Potatoes (b) ..	163	138	124	142	145	137	140
Sugar Beet ..	2.4	2.1	2.5	3	3	1	2.3
Vineyards ..	113	115	115	113	113	70	113
Hops ..	1.6	1.5	1.4	1.2	1	1.4	1.5
Sugar Cane ..	291	299	307	312	326	172	284
Cotton ..	29	26	28	36	50	0.4	45
Tobacco ..	2.1	2.2	2.5	3.4	18	2	4.1
Market Gardens (c) ..	54	45	52	54	51	42	48
Orchards ..	278	277	278	276	273	252	276
All other Crops ..	103	106	126	118	110	37	102
Total ..	19,219	21,190	21,930	25,164	21,167	15,006	19,362

(a) Malting only.

(b) Not including Sweet Potatoes.

(c) Including Pumpkins and Melons.



4. Total and Average Production, Chief Crops, Australia.—The following table shows the production of the chief crops for the five years ending 1931-32 and averages for the decennia ending 1921-22 and 1931-32 :—

TOTAL AND AVERAGE PRODUCTION, CHIEF CROPS.—AUSTRALIA.

Crop.	Unit of Quantity.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	Average 1912-22.	Average 1922-32.
Barley (a) .. ..	1,000 bushel	4,041	5,692	6,439	5,674	5,547	4,328	5,231
Maize .. .. .	" "	11,393	8,323	7,946	8,026	7,062	7,892	8,509
Oats .. .. .	" "	12,084	14,109	14,424	16,658	15,195	13,030	14,893
Rice .. .. .	" "	879	1,308	1,829	1,428	1,350	..	709
Wheat .. .. .	" "	118,200	159,679	126,884	213,594	190,612	106,301	148,324
Hay .. .. .	" ton	2,859	3,175	2,725	4,150	3,167	3,540	3,481
Beans and Peas .. ..	" bushel	790	663	813	737	497	621	732
Onions .. .. .	" ton	37	34	50	47	24	34	38
Potatoes (b) .. ..	" "	470	284	343	365	397	356	365
Beet Sugar .. .. .	" "	2.3	2.1	3.5	5.0	5.4	1.2	3.1
Grapes .. .. .	" "	241	393	386	284	324	112	294
Wine .. .. .	" gallon	17,303	18,600	16,069	13,078	14,191	6,747	15,532
Raisins and Currants .. ..	" cwt.	657	1,444	1,469	1,016	1,207	315	900
Hops .. .. .	" lb.	2,898	2,342	2,340	1,973	1,810	1,925	2,350
Cane Sugar .. .. .	" ton	509	538	538	536	604	218	468
Cotton, Unginned .. ..	" lb.	7,061	12,291	8,024	17,023	15,245	156	12,135
Tobacco .. .. .	" lb.	1,868	1,839	1,702	1,594	10,160	1,778	2,663
Pumpkins and Melons .. ..	" ton	78	37	45	59	58	59	51

(a) Malting only.

(b) Not Including Sweet Potatoes.

5. Average Production per Acre, Chief Crops, Australia.—Details of the average production for Australia of the principal crops are shown hereunder for the periods indicated :—

AVERAGE PRODUCTION PER ACRE, CHIEF CROPS.—AUSTRALIA.

Crop.	Unit of Quantity.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	Average 1912-22.	Average 1922-32.
Barley (a) .. .	bushel	14.62	18.53	16.56	17.30	18.55	13.67	17.74
Maize .. .. .	" "	28.45	26.41	26.71	27.34	26.21	25.10	26.69
Oats .. .. .	" "	10.77	13.49	9.52	15.39	14.00	15.90	13.58
Rice .. .. .	" "	88.88	93.02	92.44	71.88	68.91	..	79.72
Wheat .. .. .	" "	9.63	10.76	8.47	11.76	12.93	11.40	11.68
Hay .. .. .	" ton	1.09	1.16	1.03	1.25	1.26	1.22	1.19
Beans and Peas .. ..	" bushel	12.23	13.74	16.16	14.32	11.60	16.08	15.31
Onions .. .. .	" ton	4.29	4.03	5.57	6.29	3.67	4.48	5.14
Potatoes (b) .. ..	" "	2.88	2.06	2.76	2.57	2.74	2.60	2.62
Beet Sugar .. .. .	" "	1.00	0.99	1.39	1.67	1.70	1.12	1.33
Grapes (c) .. .. .	" "	2.31	3.71	3.61	2.67	3.02	2.01	3.00
Wine (c) .. .. .	" gallon	364	400	345	281	299	229	345
Raisins and Currants (c) .. ..	" cwt.	13.43	27.52	27.77	19.17	22.88	16.69	21.56
Hops (c) .. .. .	" lb.	1,851	1,594	1,708	1,689	1,747	1,408	1,594
Cane Sugar (c) .. ..	" ton	2.40	2.42	2.41	2.33	2.50	2.11	2.35
Cotton, Unginned (c) .. ..	" lb.	472	605	535	752	679	362	441
Tobacco .. .. .	" lb.	848	822	689	475	572	858	641
Pumpkins and Melons .. ..	" ton	3.58	2.79	2.76	2.96	3.13	3.83	3.20

(a) Malting only.

(b) Not including Sweet Potatoes.

(c) Per acre of productive crops.

6. Gross Value of Agricultural Production, Australia.—The following table shows the gross value estimated at metropolitan wholesale market prices of agricultural production in Australia for the years 1924-25 to 1931-32.

GROSS VALUE OF AGRICULTURAL PRODUCTION.—AUSTRALIA.

Crops.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Barley (a) .. ..	1,156	1,126	1,109	1,006	1,096	1,059	685	829
Maize .. .. .	2,467	1,878	2,317	2,799	1,665	2,085	1,617	1,193
Oats .. .. .	2,734	2,334	2,165	2,321	2,137	2,097	1,437	1,448
Rice .. .. .	4	14	52	198	234	335	295	297
Wheat .. .. .	53,547	35,724	42,453	31,895	38,303	27,299	25,047	33,728
Green Forage .. ..	2,309	3,381	3,912	2,731	2,680	3,167	2,385	2,642
Hay .. .. .	18,493	17,078	17,252	15,120	14,137	12,721	14,397	8,145
Beans and Peas .. ..	234	267	337	333	256	257	199	220
Onions .. .. .	381	457	221	319	314	193	139	253
Potatoes (b) .. ..	2,435	3,639	3,116	2,327	3,424	2,375	1,690	2,073
Sugar Beet .. .. .	49	42	20	54	33	58	82	86
Grapes .. .. .	3,593	3,866	5,590	3,786	4,022	4,145	3,496	3,495
Hops .. .. .	268	207	171	258	189	132	157	144
Sugar Cane .. .. .	7,683	6,789	6,568	7,469	7,444	7,476	7,340	7,649
Tobacco .. .. .	109	168	123	108	97	92	187	1,115
Cotton, Unginned .. ..	377	380	190	145	214	186	355	308
Market Gardens (c) .. ..	2,177	2,331	2,680	2,374	2,384	2,640	2,259	2,152
Orchards .. .. .	7,484	8,043	8,198	9,109	8,807	8,469	7,086	7,030
Other Crops .. .. .	1,663	1,543	1,821	1,976	2,004	2,323	1,647	1,682
Total, Gross Value	107,163	89,267	98,295	84,328	89,440	77,109	70,500	74,489

(a) Malting only. (b) Not including Sweet Potatoes. (c) Including Pumpkins and Melons.

7. Value of Production—Gross and Net.—The following table shows the value of agricultural produce in its various relations to the farmer computed in accordance with the methods determined at Conferences of Australian Statisticians in 1924 and subsequent years.

The figures in column 2 show the estimated value of all agricultural production on the assumption that it was sold at metropolitan wholesale market prices. From the gross value so computed, marketing costs—which include freight, handling charges, commission, and cost of containers—are deducted. The net result shown in column 4 gives the farm parity of the values in column 2. From this value, however, the value of produce retained or bought for seed, also, of fodder used for farm live-stock must be deducted. The remainder shown in column 6, shows, as nearly as practicable from information available, the value at the farm of all produce actually marketed. This value is, however, still too large, since it includes agricultural produce which was not sold, but fed to live-stock and eventually marketed, in the form of milk, butter, eggs, poultry, meat, &c., as the produce of a branch of farming other than agriculture. To ascertain the net result to the agricultural industry the figures in column 6 must be reduced by the cost of the materials used and by an allowance for depreciation. The principal items under the heading—Column 7—are (i) seed pickling (ii) manures (iii) spraying (iv) power and water used in irrigation and (v) depreciation of farm implements and machinery. The sum of these items is subtracted from column 6, leaving the net value of production (column 8). It is from the sum appearing in the last column that such items as wages, interest, rent and profit are met. The net value of agricultural production is, therefore, in fair harmony with that given for manufacturing production. Owing to the lack of complete data for all States, the value of materials used in maintenance of buildings, fences, etc., and an allowance for the depreciation of stock used for draught purposes have been omitted in arriving at the amount shown in column 7.

## GROSS, FARM AND NET VALUES OF AGRICULTURAL PRODUCTION.—AUSTRALIA.

(AS ESTIMATED BY STATE STATISTICIANS IN ACCORDANCE WITH CONFERENCE RESOLUTIONS.)

Year.	Gross Production valued at Metropolitan wholesale Prices.	Marketing Costs. (c)	Gross Production valued at Farm.	Seed used, and Fodder for Farm Stock.	Marketed Production valued at Farm.	Value of Principal Materials used and allowance for Depreciation.	Net Value of Production.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1926-27 ..	£1,000 98,295	£1,000 17,556	£1,000 80,739	£1,000 (b)18,578	£1,000 ..	£1,000 (a)	£1,000 62,161
1927-28 ..	84,328	15,819	68,509	(b)19,731	..	(a)	48,778
1928-29 ..	89,440	15,480	73,960	(b)18,444	..	(a)	55,516
1929-30 ..	77,109	15,637	61,472	12,182	49,290	9,562	39,728
1930-31 ..	70,500	18,487	52,013	11,756	40,257	9,029	31,228
1931-32 ..	74,489	15,447	59,042	6,957	52,085	7,492	44,593

(a) Not available separately, included with seed used, &amp;c. (b) See Note (a). (c) For details see ante.

On account of the fall in prices, and in spite of a greater volume of production, the gross value of agricultural production fell from £98 million in 1926-27 to £70 million in 1930-31, a fall of £28 millions or 28 per cent. In 1931-32, however, prices rose approximately 15 per cent. with an increased return in the gross value of production. The net value of production advanced from £31 million to £44 million, but is still far below that of 1926-27, when it reached £62 million. Production and marketing costs, which had risen from £36 million in 1926-27 to £39 million in 1930-31, declined to £30 million in 1931-32. The cause of that fall was the smaller volume of production to be transported and the lower cost of seed and fodder.

## § 4. Wheat.

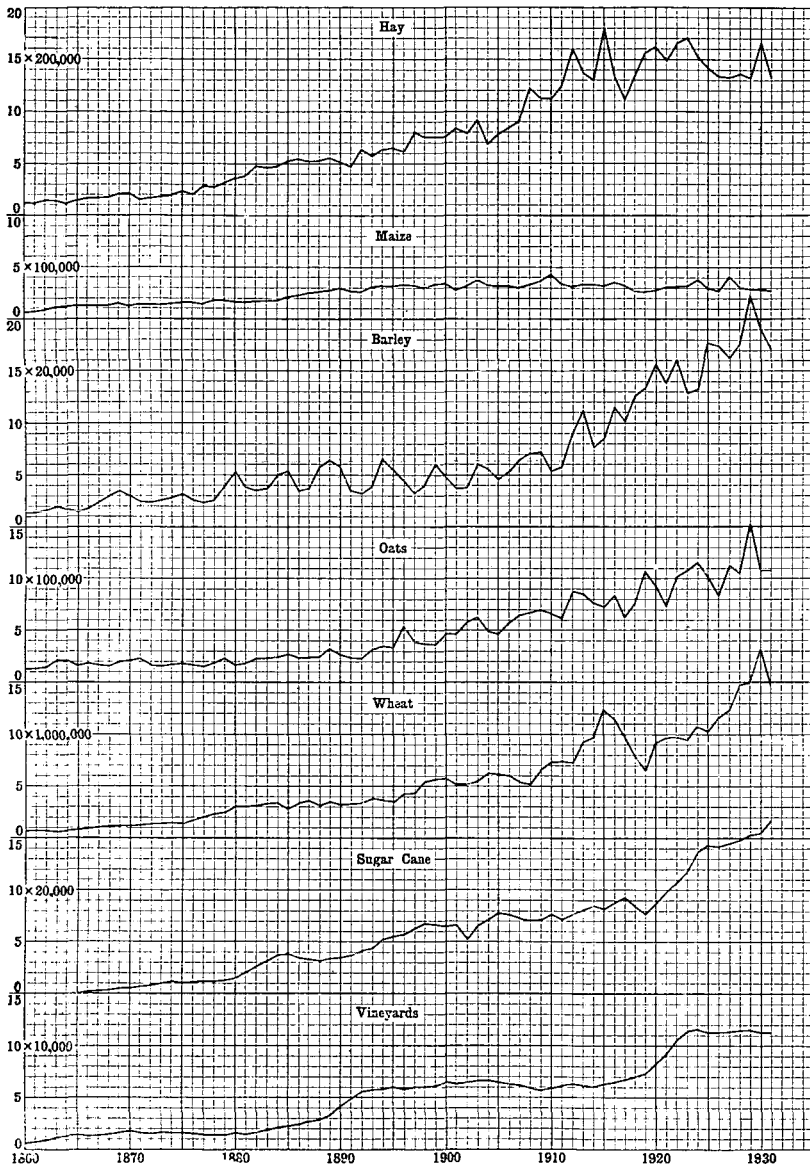
1. Progress of Wheat-growing.—(i) Area and Production. (a) Seasons 1927-28 to 1932-33. Wheat is the principal crop raised in Australia, and since 1895, when the area under this crop amounted to 3½ million acres, an average of 311,000 acres has been added annually, until in 1931-32 more than 14.7 million acres were cut for grain. The area and yield of wheat for grain are given below for each State for the five years ended 1931-32, and are shown from the year 1860 onwards in the graphs hereinafter. The figures in the table include also an estimate for the 1932-33 crop :—

## WHEAT.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28 ..	3,029,950	3,064,172	215,073	2,941,360	2,998,523	29,448	562	12,279,088
1928-29 ..	4,090,083	3,718,904	218,069	3,445,563	3,343,530	22,570	1,394	14,840,113
1929-30 ..	3,974,064	3,566,135	204,116	3,645,764	3,568,225	16,805	1,455	14,976,564
1930-31 ..	5,134,960	4,600,200	272,316	4,180,513	3,955,763	19,107	2,061	18,164,920
1931-32 ..	3,682,945	3,565,872	248,783	4,071,370	3,158,888	11,722	1,733	14,741,313
1932-33(a)	4,779,800	3,230,955	250,049	4,066,782	3,387,940	20,930	3,438	15,739,894
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1927-28 ..	27,042,000	26,160,814	3,783,584	24,066,012	36,370,219	773,142	4,004	118,199,775
1928-29 ..	49,257,000	46,818,833	2,515,561	26,826,094	33,790,040	455,336	16,557	159,679,421
1929-30 ..	34,407,000	25,412,587	4,235,172	23,345,093	39,081,183	375,849	27,738	126,884,622
1930-31 ..	65,877,000	53,814,369	5,107,561	34,871,526	53,504,149	391,490	28,296	213,594,391
1931-32 ..	54,966,000	41,955,856	3,863,894	48,093,102	41,521,245	162,913	29,178	190,612,188
1932-33(a)	78,389,000	47,843,129	2,474,382	42,429,614	41,655,000	431,690	65,439	213,288,254

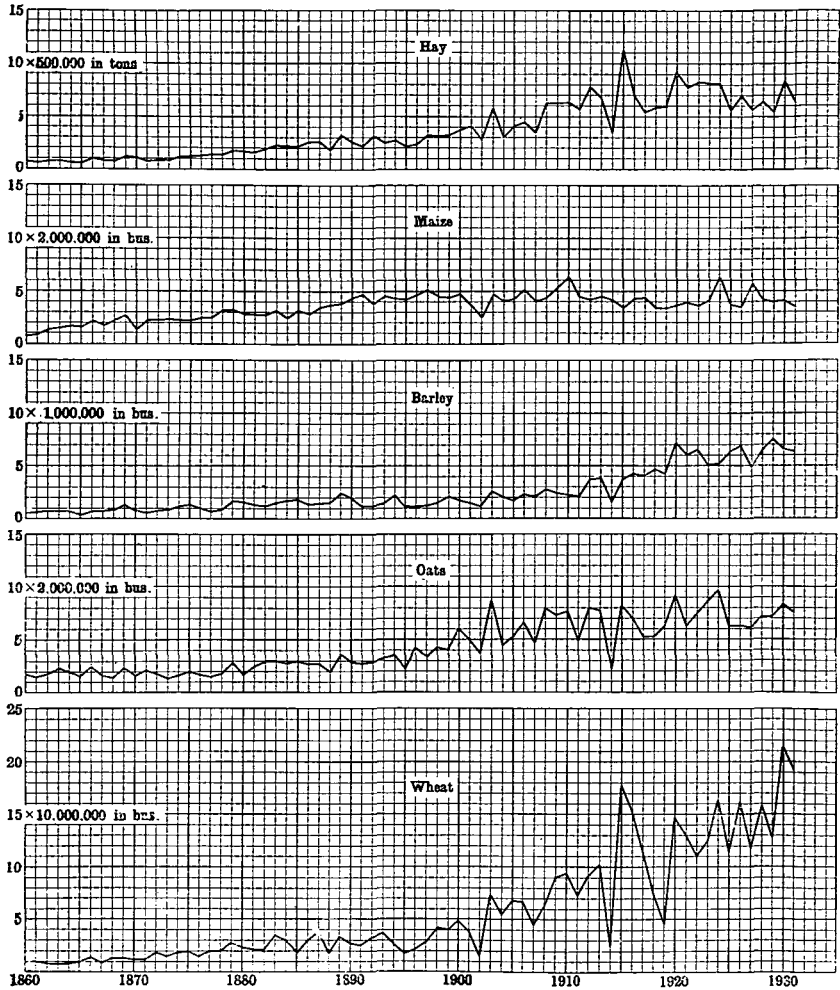
(a) Final estimate.

## AREA UNDER PRINCIPAL CROPS—AUSTRALIA 1860 TO 1931-32.



EXPLANATION.—The base of each small square represents an interval of one year, while the vertical height represents a number of acres, varying with the nature of the crop in accordance with the scale given on the left of the graph. The height of each curve above its base line denotes, for the crop to which it relates, the total area under cultivation in Australia during the successive seasons.

## PRODUCTION OF PRINCIPAL CROPS—AUSTRALIA 1860 TO 1932.



EXPLANATION.—A separate base line is provided for each of the crops dealt with. In each instance the base of a small square represents an interval of one year, the vertical height of such square representing in the case of wheat, 10,000,000 bushels; oats, 2,000,000 bushels; barley, 1,000,000 bushels; maize 2,000,000 bushels; and hay, 500,000 tons. The height of each curve above its base line denotes the aggregate yield in Australia of the particular crop during the successive seasons.

The acreage under wheat for grain increased steadily until 1915-16, when, largely as the result of a special war effort, 12,484,512 acres were sown. After that year, however, there was a serious decline, brought about by war conditions and unfavourable seasons, and the area in 1919-20 fell to 6,419,160 acres, or only half that of 1915-16. The promise of remunerative Government guarantees, coupled with the prospects of high prices, was responsible for a marked advance in 1920-21, and the area has been extended during each of the subsequent years until 1930-31, the increase for Australia since 1919-20 amounting to more than 11.7 million acres. In 1931-32, however, the area dropped to 14.7 million acres, as explained hereunder.

The area sown to wheat for grain during 1931-32 was 14,741,313 acres, a decrease of 4 million acres on the previous year. Under the influence of good seasonal conditions and the urge of Federal and State Governments to grow more wheat, farmers had increased their acreage to the maximum—and the decrease in the year (1931-32) was little more than a reversion to normal sowings.

The season was generally very satisfactory and resulted in over average yields in all States with the exception of Victoria. The average for Australia amounted to 12.93 bushels per acre, as compared with 11.76 bushels for the previous year and 11.68 bushels the average for the decennium ending 1931-32. The total production of grain for the year amounted to nearly 191 million bushels or 23 million bushels below the record production of 1930-31. Taking into consideration the fact that the area was 4 million acres below that of the record year, this yield must be regarded as very satisfactory.

The annual production during the seasons 1922-23 to 1931-32 averaged 148.3 million bushels, and the extent to which this average may be exceeded during any year depends in a great measure on seasonal conditions. For the last thirteen seasons the yield has exceeded 100 million bushels. During this period, an unprecedented succession of good harvests was experienced, which exemplifies the value of bare fallowing, seed selection, and the application of manures. It is the considered opinion of agricultural experts that the improved cultural methods practised by modern wheat-growers preclude the possibility of absolute failure of this crop.

Although final figures are not yet available for all States, the data to hand for the year 1932-33 indicate the area sown to wheat for grain in Australia to be about 15,739,894 acres, an increase of approximately a million acres or 7 per cent. on that of the previous year. This increase is in keeping with the rate of expansion experienced prior to 1930-31 and indicates a continuance of normal activities. The 1932-33 season was particularly favourable and yields were high. Production according to the final estimate amounted to 213 million bushels, or 13.55 bushels per acre, compared with 191 million bushels or 12.93 bushels per acre for the previous year and 214 million bushels or 11.76 bushels per acre for the record year of 1930-31.

(b) *Area, Production and Prices, 1861-70 to 1921-30.* The following table gives average area, production and yield per acre for decennial periods since 1861, together with the average wholesale price since 1871. The price quoted represents the average at Melbourne (Williamstown), and may be accepted as fairly representative for Australia.

**WHEAT.—AVERAGE AREA, PRODUCTION, AND WHOLESALE PRICE,  
AUSTRALIA.**

Period.	Area.	Production.	Yield per Acre.	Average Wholesale Price.
	Acres.	Bushels.	Bushels.	s. d.
1861-70 .. ..	831,457	10,621,697	12.77	(a)
1871-80 .. ..	1,646,383	17,711,312	10.76	5 10
1881-90 .. ..	3,257,709	26,992,020	8.29	4 7
1891-1900 .. ..	4,086,701	29,933,993	7.32	3 8
1901-10 .. ..	5,711,230	56,058,070	9.82	3 10
1911-20 .. ..	8,927,974	95,479,866	10.69	5 0
1921-30 .. ..	11,290,543	135,399,860	11.99	5 8

(a) Not available.

(ii) *Average Yields.* In the next table will be found the average yield of wheat per acre in each of the last five seasons, and for the decennium 1922-32:—

## WHEAT.—YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1927-28 ..	8.92	8.54	17.59	8.16	12.12	26.25	7.12	9.63
1928-29 ..	12.04	12.59	11.54	7.79	10.10	20.17	11.88	10.76
1929-30 ..	8.66	7.13	20.75	6.40	10.95	22.37	19.06	8.47
1930-31 ..	12.83	11.70	18.76	8.34	13.53	20.49	13.73	11.76
1931-32 ..	14.92	11.77	15.53	11.81	13.14	15.61	16.84	12.93
Average 10 seasons, 1922-32	12.19	12.32	15.14	10.20	11.63	21.67	15.11	11.68

The great variations in the average yields were chiefly due to the vagaries of the seasons. Considerable improvement has been shown in the averages for the past three decades, the figures being 10.48, 11.40, and 11.68 bushels per acre respectively, the increased yields in the later years being principally due to the improvement in cultural methods. The best average yields for single seasons were obtained in 1924-25, 15.20 bushels; in 1920-21, 16.08 bushels; and in 1866, 16.35 bushels. In the last mentioned year less than 1,000,000 acres of relatively fertile land were sown.

(iii) *Relation to Population.* The main producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production closely approaches local demands, but Tasmania imports from the mainland to satisfy its needs. Normally the production of wheat greatly exceeds Australian requirements, and three-quarters of the crop is exported overseas. During recent years Australia has ranked fourth on the list of exporting countries, as compared with sixth in the pre-war period 1909-13. For the later years its exports are exceeded by those of Canada, Argentine and the United States. The quantity exported is approximately 12.55 per cent. of the total quantity shipped by exporting countries.

2. *Australian and Foreign Wheat Yields.*—(i) *Average Yield.* The next table gives the average return per acre in the principal wheat-growing countries of the world, ranging from a maximum in the Netherlands of 46 bushels per acre to a minimum in Algeria of 8 bushels per acre.

## WHEAT.—YIELD PER ACRE, VARIOUS COUNTRIES.

Country.	Average Yield in Bushels per acre.		Country.	Average Yield in Bushels per acre.	
	Average, 1928-1930.	1931.		Average, 1928-1930.	1931.
Netherlands ..	46.79	35.13	Canada ..	16.57	16.40
Denmark ..	45.12	38.81	Rumania ..	15.56	15.80
Belgium ..	37.26	36.23	United States of America ..	14.34	16.27
Sweden ..	33.48	26.43	Syria ..	13.27	11.17
United Kingdom ..	33.37	30.26	Spain ..	13.06	11.95
Germany ..	32.01	29.04	Argentine Republic	12.76	13.71
Switzerland ..	31.60	30.21	Peru ..	(b) 11.61	(a) 11.89
New Zealand ..	30.05	24.50	Uruguay ..	11.10	10.43
Czechoslovakia ..	26.51	20.14	Soviet Republics	11.07	10.43
Egypt ..	25.88	27.93	<b>Australia ..</b>	<b>10.42</b>	<b>12.93</b>
Norway ..	25.78	20.63	India ..	10.40	10.79
Japan ..	25.11	25.16	Cyprus ..	10.26	8.86
Austria ..	23.74	21.27	Korea ..	9.89	10.21
Brazil ..	(b) 22.26	(a) 12.94	Portugal ..	9.71	10.23
Hungary ..	21.48	18.09	French Morocco ..	9.01	11.74
France ..	21.39	20.57	Union of South Africa ..	8.95	8.20
Lithuania ..	20.63	17.42	Mexico ..	8.92	10.81
Italy ..	19.43	20.60	Greece ..	8.65	7.51
Poland ..	19.24	18.51	Algeria ..	8.37	7.05
Yugoslavia ..	18.40	18.68			
Chile ..	18.06	13.96			
Bulgaria ..	16.72	20.65			

(a) Year 1928. (b) Average 1926-28.

(ii) *Total Production.* The latest available official statistics of the production of wheat in various countries are given in the following table :—

## WHEAT.—TOTAL PRODUCTION, VARIOUS COUNTRIES.

Country.	Yield in Bushels (,000 omitted).		Country.	Yield in Bushels (,000 omitted).	
	Average, 1928-1930.	1931.		Average 1928-1930.	1931.
Soviet Republics ..	868,696	960,000	French Morocco ..	25,938	29,784
United States of America ..	857,583	900,234	Sweden ..	19,886	18,048
Canada ..	410,328	428,000	Belgium ..	14,816	13,818
India ..	332,416	347,387	Syria ..	14,052	14,209
France ..	277,425	264,120	Austria ..	12,161	11,009
Italy ..	232,964	244,786	Uruguay ..	11,946	11,246
Argentine Republic	226,921	219,701	Tunis ..	11,611	13,963
<b>Australia</b> ..	<b>166,719</b>	<b>190,612</b>	Denmark ..	11,401	10,054
Spain ..	140,278	134,428	Mexico ..	11,270	16,226
Germany ..	134,625	155,547	Greece ..	11,212	11,228
Rumania ..	115,357	135,301	Portugal ..	10,726	12,999
Yugoslavia ..	92,874	98,790	Union of South Africa ..	9,128	14,122
Hungary ..	86,179	72,551	Lithuania ..	8,994	8,335
Poland ..	69,135	83,221	Korea ..	8,633	8,341
Czechoslovakia ..	51,670	41,232	New Zealand ..	7,333	6,660
United Kingdom ..	47,255	37,813	Netherlands ..	6,286	6,751
Bulgaria ..	47,067	61,196	Brazil ..	(b) 5,447	..
Egypt ..	40,765	46,073	Peru ..	(a) 4,453	..
Algeria ..	32,016	25,650	Switzerland ..	4,076	4,045
Japan ..	30,282	30,893	Cyprus ..	1,875	1,623
Chile ..	29,307	21,187	Norway ..	756	592

(a) Year 1928. (b) Average 1928-29.

NOTE.—The harvests reported above for 1931 relate to the year 1931 for the Northern, and 1931-32 for the Southern Hemisphere.

A complete statement of the world's production of wheat is not possible owing to the failure of certain countries to supply the necessary information. The International Institute of Agriculture, Rome, has, however, compiled figures obtained from all the producing countries reporting, with the following results :—

## WHEAT.—WORLD'S PRODUCTION.(a)

Years.	Area.	Production.	Yield per acre.
	Acres.	Bushels.	Bushels.
Average 1909-1913 ..	270,266,000	3,779,479,000	13.98
1927 ..	311,024,770	4,387,933,000	14.13
1928 ..	322,070,000	4,848,331,000	15.05
1929 ..	323,923,000	4,294,971,000	13.26
1930 ..	340,010,000	4,845,392,000	14.25
1931 ..	344,111,000	4,791,636,000	13.92
Average, 1927-1931 ..	328,227,754	4,633,652,600	14.12

(a) From countries reporting.

The Report of the Institute mentions that if all countries for which data are lacking were taken into account, the world's total production of wheat may be approximately estimated at 5,000 million bushels.



The total area harvested in 1931 shows an increase on the figures for the previous year. This increase was due principally to the Soviet Union, while the rest of Europe and Asia extended their areas slightly. The other great divisions of the world showed a downward tendency but was not sufficient to counterbalance the increases above mentioned. In comparison with the pre-war period, areas sown to wheat in European countries, exclusive of the Soviet Union, slightly increased. North America, Argentine, and Australia were the chief contributing countries to the increase over the average for 1909-13.

The world's acreage under wheat in 1931 was the highest ever recorded, but the production was slightly lower than that for the record year of 1928. A succession of bountiful years commencing in 1928 led to very heavy accumulations of stocks particularly in North America. These accumulations, in conjunction with an increase in the production of European countries and the raising of trade barriers, were largely responsible for a collapse in prices. The average wholesale price of wheat in Melbourne fell from 5s. 2d. per bushel in 1928 to 2s. 5½d. in 1931, a decrease of 53 per cent. In 1932, however, the price increased to 3s. 1d.

The Australian contribution to the world's average production shown above during the past five years amounted to 3½ per cent.

3. **Export Price of Wheat.**—The table hereunder shows export prices of Australian wheat during each of the last five years :—

#### AUSTRALIAN WHEAT.—EXPORT PRICES.

Item.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Price per bushel ..	s. d. 4 10	s. d. 5 0	s. d. 2 5½	s. d. 3 0½	s. d. 2 11½

The export prices here shown are the averages for the successive years in the principal markets of Australia in Australian currency.

4. **Exports of Wheat and Flour.**—(i) *Quantities.* The table appended shows the exports, and net exports of wheat and flour from 1927-28 to 1931-32. For the sake of convenience, flour has been expressed at its equivalent in wheat, 1 ton of flour being taken as equal to 48 bushels of grain. In ordinary seasons the Australian imports of wheat and flour are negligible. During the past five years the exports ranged between 62,745,891 bushels in 1929-30 and 156,722,189 bushels in 1931-32, the net exports for the period averaging 109,333,258 bushels.

#### WHEAT AND FLOUR.—EXPORTS, AUSTRALIA.

Year.	Exports.			Net Exports.
	Wheat.	Flour.	Total.	
	Bushels.	Eq. Bushels.(a)	Bushels.	Bushels.
1927-28 ..	53,042,357	20,822,160	73,864,517	73,863,184
1928-29 ..	81,896,245	27,062,544	108,958,789	108,954,924
1929-30 ..	40,390,707	22,355,184	62,745,891	62,743,071
1930-31 ..	119,223,290	25,163,664	144,386,954	144,384,366
1931-32 ..	127,401,005	29,321,184	156,722,189	156,720,746

(a) Equivalent in bushels of wheat.

(ii) *Destination.* The following table gives the exports of wheat to various countries for each of the five years ending 1931-32, together with averages for the pre-war period 1909-13 and for the five years 1927-32 :—

## EXPORTS OF WHEAT.—AUSTRALIA.

Country to which Exported.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	Average, 1909-13.	Average, 1927-32.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
United Kingdom	20,465,490	20,564,650	21,488,415	39,995,488	49,219,354	30,305,384	30,346,680
Italy .. ..	7,151,695	5,861,552	3,261,455	12,697,635	8,195,049	581,309	7,433,477
Japan .. ..	3,199,720	5,626,298	2,811,142	17,676,232	21,464,248	330,131	10,155,530
France .. ..	622,785	1,967,455	186,682	350,638	163,495	1,681,918	658,211
Union of South Africa	6,941,395	4,143,328	1,540,482	956,317	461,706	2,992,355	2,808,646
Belgium .. ..	1,729,143	994,923	408,990	2,016,602	1,892,016	1,218,131	1,408,335
Egypt .. ..	3,827,150	4,943,383	1,178,230	3,143,433	1,640,116	135,377	2,946,462
Germany .. ..	2,356,622	1,001,897	..	193,935	204,084	286,822	751,308
Netherlands ..	726,993	1,834,132	490,358	2,158,470	2,073,363	(a)	1,456,663
Other Countries ..	6,021,364	34,958,627	9,024,953	40,034,540	42,087,574	4,465,847	26,425,412
Total ..	53,042,357	81,896,245	40,390,707	119,223,290	127,401,005	41,997,274	84,390,724

(a) Included with other Countries.

Exports of flour from Australia for the periods mentioned are given in the table below.

## EXPORTS OF FLOUR.—AUSTRALIA.

Country to which Exported.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	Average, 1909-13.	Average, 1927-32.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Egypt .. ..	150,795	243,468	125,963	145,694	106,526	(a)	154,487
United Kingdom	71,837	57,945	85,364	134,547	191,963	27,699	108,331
Netherlands East Indies	65,923	79,040	82,595	74,765	85,570	26,099	77,579
Malaya (British) ..	41,071	52,176	51,160	41,841	43,664	15,492	45,983
Union of South Africa	22,183	24,558	18,256	9,051	1,230	30,714	15,056
Ceylon .. ..	20,203	21,705	21,252	21,630	19,441	3,389	20,846
New Zealand .. ..	5,053	3,556	3,823	5,168	4,833	3,221	4,487
Philippine Islands	7,569	8,436	8,707	8,949	11,762	13,680	9,085
Hong Kong .. ..	5,856	2,972	2,933	5,947	5,557	2,672	14,253
Mauritius .. ..	4,979	9,395	5,988	4,896	13,231	2,221	7,698
Portuguese East Africa	7,531	5,917	5,410	5,747	6,199	13,462	6,161
Other Countries ..	30,795	54,635	54,282	66,008	72,882	28,463	55,720
Total ..	433,795	563,803	465,733	524,243	610,858	167,112	519,686

(a) Included with other Countries.

5. *Exports—Principal Countries.*—The following table shows the net quantities of wheat exported from the chief exporting countries for the years 1927 to 1931, the average for that period and the average for the period 1909-13. The figures are based mainly on information supplied by the International Institute of Agriculture. Comparison between the periods 1927-31 and 1909-13 shows that the world's supply of wheat in the later years has been obtained from North America, Canada supplying 34½ per cent., and the United States 17½ per cent., as compared with 14 and 15 per cent. respectively for the pre-war period. Russia's exports, which amounted to about 24 per cent. of the total for the period 1909-13, fell to 5 per cent. for the years 1927-31. Under Government stimulus, however, the area sown to wheat in the Soviet Republics is increasing rapidly. In 1931 the total amounted to 92 million acres, which produced 960 million bushels, an average of 10.43 bushels per acre. While Australian production was only 3½ per cent. of the world's total, the exports accounted for 12.5 per cent. of the quantities exported in the years 1927-31.

## WHEAT.(a)—NET EXPORTS, PRINCIPAL COUNTRIES.

Country.	Average, 1909-13.		1927.	1928.
	Bushels.	Per cent.	Bushels.	Bushels.
Soviet Republics (b) ..	157,109,000	23.71	29,160,690	..
Canada .. ..	89,919,000	13.57	294,974,749	411,760,521
United States of America ..	100,864,000	15.22	215,091,653	131,835,470
Argentina .. ..	95,041,000	14.34	163,569,085	202,868,949
British India .. ..	50,886,000	7.68	12,245,294	27,765,634
Australia .. ..	49,417,000	7.46	104,352,729	79,670,093
All other Countries ..	119,351,000	18.02	42,795,718	51,747,821
<b>Total . . . . .</b>	<b>662,587,000</b>	<b>100.00</b>	<b>862,189,918</b>	<b>905,648,488</b>
<b>World's Production ..</b>	<b>3,779,479,000</b>		<b>4,387,933,000</b>	<b>4,848,331,000</b>
Percentage of Australian Net Exports on Total Net Exports ..	7.46		12.10	8.80
Percentage of Australian Production on World's Production ..	2.39		2.69	3.30

Country.	1929.	1930.	1931.	Average, 1927-31.	
	Bushels.	Bushels.	Bushels.	Bushels.	Per cent.
Soviet Republics (b) ..	..	93,500,338	93,294,187	43,191,043	5.27
Canada .. ..	250,485,790	240,076,983	219,380,719	283,335,752	34.56
United States of America ..	137,914,928	127,484,281	109,348,836	144,335,933	17.61
Argentina .. ..	249,708,054	86,434,936	137,917,662	168,099,737	20.51
British India .. ..	..	4,376,075	..	8,877,400	1.08
Australia .. ..	99,150,188	75,115,330	156,306,844	102,919,037	12.55
All other Countries	71,425,641	78,525,402	100,566,335	69,012,185	8.42
<b>Total ..</b>	<b>808,684,601</b>	<b>705,513,345</b>	<b>816,814,583</b>	<b>819,770,187</b>	<b>100.00</b>
<b>World's Production</b>	<b>4,294,971,000</b>	<b>4,845,392,000</b>	<b>4,791,636,000</b>	<b>4,633,652,600</b>	
Percentage of Australian Net Exports on Total Net Exports ..	12.26	10.65	19.14	12.55	
Percentage of Australian Production on World's Production ..	2.95	4.41	3.98	3.50	

(a) Including flour expressed in terms of wheat. (b) The average for 1909-13 is not strictly comparable with the later years, owing to changes of frontiers under the Peace Treaty.

6. Imports—Principal Countries.—The quantities of wheat and flour (expressed in terms of wheat) imported into the principal countries of destination, for the periods indicated, are shown in the following table. The United Kingdom is easily the leading importing country. Under the terms of the Agreement at the Imperial Economic Conference at Ottawa in August, 1932, the Government of the United Kingdom undertook to provide for a duty of 3d. per bushel on foreign wheat imported, and the concession should prove of considerable benefit to Canada and Australia. During recent years the imports of wheat to China and Japan have grown considerably, and a large share in this trade has been taken by Australia.

WHEAT.(a)—IMPORTS, PRINCIPAL COUNTRIES.(b)

Country Importing.	Average, 1909-13.		1927.	1928.
	Bushels.	Per cent.	Bushels.	Bushels.
Germany .. ..	89,731,507	12.44	98,892,898	92,748,503
Belgium .. ..	73,902,974	10.26	45,790,749	44,514,982
France .. ..	38,681,717	5.36	80,043,137	38,356,333
Great Britain ..	219,365,265	30.42	233,425,613	215,560,947
Italy .. ..	57,156,174	7.93	84,898,799	101,033,230
Netherlands ..	76,340,387	10.59	30,809,530	29,519,980
Brazil .. ..	20,774,307	2.88	31,884,695	35,798,744
China .. ..	5,525,863	0.77	15,081,749	19,731,378
Japan .. ..	3,713,840	0.52	18,156,065	24,568,194
Egypt .. ..	7,914,626	1.10	7,620,107	8,162,124
South Africa ..	6,519,097	0.90	5,781,875	8,749,311
All other Countries ..	121,409,356	16.83	226,553,482	266,606,749
<b>Total .. ..</b>	<b>721,095,113</b>	<b>100.00</b>	<b>878,938,699</b>	<b>885,350,475</b>

Country Importing.	1929.	1930.	1931.	Average, 1927-31.	
	Bushels.	Bushels.	Bushels.	Bushels.	Per cent.
Germany .. ..	79,779,402	45,076,168	29,833,110	69,266,016	8.00
Belgium .. ..	44,654,975	44,876,382	54,100,075	46,787,433	5.40
France .. ..	52,592,676	39,331,044	87,744,709	59,613,580	6.88
Great Britain ..	232,781,569	224,793,731	249,672,560	231,246,884	26.71
Italy .. ..	65,030,081	71,417,907	55,225,990	75,521,201	8.72
Netherlands ..	30,187,874	33,835,932	34,050,398	31,680,743	3.68
Brazil .. ..	35,397,705	31,279,111	32,247,550	33,321,561	3.85
China .. ..	47,929,460	21,501,395	65,067,217	33,862,240	3.90
Japan .. ..	27,530,853	18,756,906	26,846,094	23,171,622	2.68
Egypt .. ..	12,656,077	10,225,853	8,867,699	9,506,372	1.10
South Africa ..	7,634,672	2,794,289	3,408,764	5,673,782	0.66
All other Countries	280,693,876	227,141,083	229,453,123	246,089,663	28.42
<b>Total .. ..</b>	<b>916,869,220</b>	<b>771,029,801</b>	<b>876,517,289</b>	<b>865,741,097</b>	<b>100.00</b>

(a) Including flour expressed in terms of wheat. (b) In some instances, the average 1909-13 is not strictly comparable with the other years shown, owing to changes of frontiers.

7. Consumption of Wheat.—(i) *Australia*. The estimated consumption of wheat for food and the quantity used for seed in Australia during the past five years are shown hereunder :—

AVERAGE HUMAN CONSUMPTION, 1927-28 TO 1931-32.

Flour Milled .. .. .	1,170,234 tons
Less Net exports of flour .. .. .	519,641 tons
Less Net exports of flour in Biscuits	1,375 ..
	521,016 ..
Net quantity available for home consumption .. .. .	649,218 ..
Equivalent in terms of wheat .. .. .	31,162,464 bushels
Net quantity available per head of population—	
As flour .. .. .	203 lb.
As wheat .. .. .	4.871 bushels

AVERAGE USED FOR SEED, 1927-28 TO 1931-32.

Average area sown for grain and hay .. .. .	16,070,886 acres
Average quantity of seed used .. .. .	15,289,000 bushels
Average quantity of seed used per acre .. .. .	57 lb.
Average quantity per head of population .. .. .	2.390 bushels

In addition to the above, allowance must be made for wheat fed to poultry and other live stock or used as seed for green forage crops. The quantities so used vary from year to year according to the price of wheat and the nature of the season, and sufficient data are not available on which to base an annual estimate, but, taken over a period, the amount so consumed has been estimated to range from one half to one bushel per head of population per annum. The flour available for human consumption necessarily fluctuates from year to year coincident with stocks. In some years the flour available per head of population, after deducting net exports from the quantity milled, shows a substantial increase over the average for the previous year, this, however, being counter-balanced by a decline in the following year. The average quantity of flour consumed per annum for the five years under consideration was 203 lb. per head of population, which, expressed in terms in wheat, represents 4.871 bushels. The estimates of quantity of grain used for seed in Victoria, South Australia and Western Australia are based on data collected from growers. In the other States estimates supplied by the Agricultural Departments have been used. The average annual quantity used for the purposes indicated during the last five years was 2.390 bushels per head of population, or 57 lb. per acre sown. The consumption of wheat in Australia for all purposes during the period dealt with averaged, therefore, 51,249,659 bushels, or 8.01 bushels per head of population.

(ii) *Other Countries*. The following table gives the consumption of wheat in some of the principal countries of the world. The figures, which were obtained partly from the Food Research Institute, of California, represent the *per capita* consumption of wheat exclusive of the quantity used for seed purposes.

PER CAPITA CONSUMPTION OF WHEAT, EXCLUDING SEED, FOR PERIOD 1922-1929.

Country.	Used for human consumption.	Fed to Stock.	Total.
	Bushels.	Bushels.	Bushels.
Argentina .. .. .	5.4	0.2	5.6
Australia (a) .. .. .	4.9	0.7	5.6
Canada .. .. .	4.5	3.3	7.8
New Zealand (b) .. .. .	4.7	1.1	5.8
United Kingdom .. .. .	4.8	1.0	5.8
United States .. .. .	4.2	0.6	4.8

(a) Average for five years ending 1931-32.

(b) Average for five years ending 1931.

8. Value of the Wheat Crop.—The estimated value of the wheat crop in each State and in Australia during the season 1931-32 is shown below :—

## WHEAT.—VALUE OF CROP(a), 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value ..	9,733,560	7,499,052	753,435	8,486,241	7,215,043	35,580	5,167	33,728,078
Value per acre ..	£2/12/10	£2/2/1	£3/0/8	£2/1/8	£2/5/8	£3/0/8	£2/19/8	£2/5/9

(a) Gross value of total crop, including seed used on farm, valued at metropolitan prices; but exclusive of value of straw.

9. Stocks of Wheat and Flour.—Stocks of wheat and flour held by each State at 30th November, 1932, and the total held in Australia on the same date for the previous four years will be found in the following table. The figures have been compiled from information collected from millers, merchants, the Railway Departments and other sources but are exclusive in certain instances of stocks held by farmers.

## STOCKS OF WHEAT AND FLOUR.—AUSTRALIA, 30TH NOVEMBER, 1932.

State.	Wheat.	Flour.	Total in terms of wheat.(a)
	Bushels.	Tons.	Bushels.
New South Wales .. ..	1,000,575	34,158	2,640,159
Victoria .. ..	4,735,603	32,038	6,273,443
Queensland .. ..	82,161	3,315	241,281
South Australia .. ..	510,755	9,010	943,235
Western Australia .. ..	83,228	5,605	352,268
Tasmania .. ..	95,278	1,532	168,814
Total, 30th November, 1932 ..	6,507,600	85,658	10,619,200
.. .. 1931 ..	12,447,224	80,052	16,289,720
.. .. 1930 ..	10,106,694	77,066	13,805,879
.. .. 1929 ..	11,085,059	93,825	15,588,659
.. .. 1928 ..	5,468,531	70,513	8,853,156

(a) One ton of flour treated as equivalent to 48 bushels of wheat.

10. Voluntary Wheat Pools.—Reference to the operations of the voluntary Wheat Pools in the various States during 1932-33 will be found in the Appendix at the end of this volume.

## § 5. Oats.

1. Progress of Cultivation.—(i) Area and Production. Oats is usually next in importance to wheat amongst the grain crops cultivated in Australia, but while wheat grown for grain accounted for 69.64 per cent., oats represented only 5.13 per cent. of the area under crop in 1931-32. The acreage and production of oats for the last five years is shown in the table hereunder, and more fully in the graphs herein :—

## OATS.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28	114,988	529,392	2,272	197,024	235,469	42,950	208	1,122,303
1928-29	126,743	347,021	916	207,266	325,827	37,602	295	1,045,670
1929-30	181,354	630,234	2,003	277,923	385,134	39,061	162	1,515,871
1930-31	176,659	371,024	5,132	218,416	274,874	35,919	77	1,082,101
1931-32	151,600	439,626	1,364	206,470	267,894	18,412	123	1,085,489
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1927-28	1,654,560	4,682,724	43,788	1,378,437	2,922,865	1,399,824	2,067	12,084,265
1928-29	2,183,880	5,602,409	13,737	1,740,515	3,554,609	1,011,367	2,160	14,108,677
1929-30	2,528,610	5,058,541	38,494	1,564,287	4,058,160	1,175,041	1,053	14,424,186
1930-31	3,241,980	6,893,827	94,452	2,080,311	3,292,560	1,052,768	2,160	16,658,058
1931-32	2,526,450	6,450,281	20,352	2,287,844	3,549,636	356,847	3,270	15,194,680

The oat crop showed considerable variation during the past decennium, ranging from 12,084,265 bushels in 1927-28 to 19,393,737 bushels in 1924-25, with an average for the period of 14,893,194 bushels. The demand for the grain for oatmeal is limited to about 2,000,000 bushels annually. The product is mainly used as feed grain, and its value, particularly in good seasons, is not sufficient to warrant an increase in cultivation.

The principal oat-growing State is Victoria, which produces on the average more than one-third of the total quantity grown in Australia. South Australia, Western Australia, and Tasmania, also produce considerable quantities in excess of local requirements. Western Australia disposes of its surplus to the East, principally to Malaya (British), whilst the other States export chiefly to New South Wales and Queensland. For Australia as a whole the record yield of oats was obtained during 1924-25, when 19,393,737 bushels were harvested.

(ii) *Average Yield.* The average yield per acre of oats varies considerably in the different States, being highest in Tasmania and lowest in South Australia. Averages for each of the last five seasons, and for the decennium 1922 to 1932 are given in the table below :—

## OATS.—AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1927-28 .. ..	14.39	8.85	19.27	7.00	12.41	32.59	9.94	10.77
1928-29 .. ..	17.23	16.14	15.00	8.40	10.91	26.90	7.32	13.49
1929-30 .. ..	13.94	8.03	19.22	5.63	10.54	30.08	6.50	9.52
1930-31 .. ..	18.35	18.58	18.40	9.52	11.98	29.31	28.05	15.39
1931-32 .. ..	16.67	14.67	14.92	11.08	13.25	19.38	26.59	14.00
Average for 10 seasons 1922-32	16.90	14.30	16.79	9.55	11.66	27.20	15.89	13.58

The smallest average yield per acre ever recorded for Australia was that experienced in the abnormally dry season 1914-15, viz., 5.60 bushels, while the largest in the past ten years was that of the season 1924-25, amounting to 16.65 bushels per acre.

2. **World's Production.**—The world's production of oats for the year 1931, as computed by the International Institute of Agriculture, amounted to 3,535 million bushels. Compared with 1930, the area in 1931 decreased by 1.3 million acres and the production by 267 million bushels. The average yield per acre in 1931 was 24.45 bushels. In the years 1909 to 1913 the production averaged 3,613 millions of bushels from an average area of 142,870,000 acres. Subsequently the area declined, principally in Europe, but for 1931 a total was returned of 144,600,000 acres, an increase of 1,800,000 acres over the pre-war period.

3. **Prices of Oats.**—The average wholesale prices in the metropolitan markets for the year 1931-32 are given in the following table :—

**OATS.—AVERAGE WHOLESALE PRICES, 1931-32.**

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Average price per bushel ..	2 7	2 2½	3 3½	1 7¾	1 9¾	2 8

4. **Imports and Exports.**—The production of oats in Australia has not yet reached sufficient proportions to admit of a regular export trade; in fact in one of the years in the following table imports have exceeded the exports. The quantities and values of oats imported into and exported from Australia during the years 1927-28 to 1931-32 are given hereunder :—

**OATS.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1927-28 ..	525,568	92,301	64,987	14,172	-460,581	-78,129
1928-29 ..	38,993	8,045	90,463	18,833	51,470	10,788
1929-30 ..	8,658	2,181	117,300	24,950	108,642	22,769
1930-31(a) ..	3,293	1,090	171,825	23,957	168,532	22,867
1931-32(a) ..	5,470	1,435	245,700	30,394	240,230	28,959

NOTE.—(—) signifies net import.

(a) Australian currency values.

Imports have been obtained chiefly from New Zealand, while the principal countries to which oats were exported during the years quoted were New Zealand, Malaya (British), Ceylon, and Netherlands East Indies.

5. **Oatmeal, etc.**—The production of oatmeal in Australia during 1931-32 amounted to 254,170 cwt., practically the whole of which is consumed locally, the quantity of oats used for oatmeal being 1,988,940 bushels or 13 per cent. of the total production. Oversea trade in this and similar products is small, the imports of oatmeal, wheatmeal and rolled oats during 1931-32 amounting to 1,921 cwt., and exports to 8,591 cwt.

6. **Value of Oat Crop.**—The estimated value of the oat crop for the season 1931-32 was as follows :—

**OATS.—VALUE OF CROP,(a) 1931-32.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value ..	200,020	645,028	3,166	209,719	342,022	47,900	259	1,448,114
Value per acre ..	£1/6/5	£1/9/4	£2/6/5	£1/0/4	£1/5/6	£2/12/0	£2/2/1	£1/6/8

(a) Exclusive of the value of straw.



### § 6. Maize.

1. *States Growing Maize.*—Maize is grown for grain chiefly in New South Wales and Queensland, the area so cropped in these States during the season 1931-32 being 253,716 acres, or 94 per cent. of the total for Australia. Of the balance, Victoria contributed 15,714 acres, Western Australia 11 acres, and South Australia 7 acres. The climate of Tasmania is unsuitable for the growing of maize for grain. In the States mentioned, the crop is grown to a greater or less extent for green forage, particularly in connexion with the dairying industry.

2. *Progress of Cultivation.*—(i) *Area and Production.* Notwithstanding its pre-eminence as the world's most extensively grown cereal, the cultivation of maize has decreased in Australia during the past decennium. Compared with the previous year, the area in 1931-32 decreased by more than 24,000 acres. The greatest area grown was in 1910-11 when it amounted to 414,914 acres. The average for the decennium 1922-32 was 318,786 acres.

The area and production of maize for grain in each State for the past five years are given in the following table. The fluctuations from year to year are shown more fully on the graph herein.

#### MAIZE.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Nor. Ter.	Fed. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28	148,801	17,645	234,013	..	63	10	12	400,544
1928-29	106,835	16,077	192,173	..	55	..	..	315,140
1929-30	108,219	17,640	171,614	..	29	..	..	297,502
1930-31	105,024	16,227	172,176	..	10	..	13	293,450
1931-32	106,047	15,714	147,669	7	11	..	..	269,448
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1927-28	3,930,570	757,780	6,703,518	..	1,098	..	84	11,393,050
1928-29	2,506,470	679,810	5,135,607	..	831	..	..	8,322,718
1929-30	3,035,850	533,719	4,376,412	..	339	..	..	7,946,320
1930-31	2,766,660	692,896	4,565,850	..	87	..	126	8,025,619
1931-32	2,669,580	611,902	3,780,597	217	87	..	..	7,062,383

The greatest production of maize in Australia was recorded in 1910-11, when it amounted to over 13,000,000 bushels. This figure was considerably in excess of the yields for recent years, except in 1924, when a bountiful harvest in Queensland increased the Australian total to 12,400,000 bushels. The production in 1931-32 amounted to 7,062,383 bushels, and the average for the past decennium was 8,508,701 bushels.

(ii) *Average Yield.* The following table gives particulars of the average yield per acre of the maize crops of the States for the seasons 1927-28 to 1931-32, and for the decennium 1922-1932 :—

#### MAIZE.—AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	N. Ter.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1927-28 ..	26.42	42.95	28.65	..	17.43	..	7.00	28.45
1928-29 ..	23.46	42.28	26.72	..	15.11	..	..	26.41
1929-30 ..	28.05	30.26	25.50	..	11.69	..	..	26.71
1930-31 ..	26.34	42.70	26.52	..	8.70	..	9.69	27.34
1931-32 ..	25.17	38.94	25.60	31.00	7.91	..	..	26.21
Average for 10 seasons 1922-32	26.59	39.18	25.28	20.29	13.08	5.19	19.71	26.69

The average for Victoria in 1931-32 was amongst the highest in the world. The area, however, is comparatively small and is situated in specially favourable districts. The average for New South Wales is generally higher than for Queensland.

(iii) *Production per Acre—Various Countries.* The average for Australia for the past 10 years was 26.7 bushels per acre. The United States of America shows an average of 27.2 bushels, Argentine 32.82 bushels, Rumania 17.68 bushels; and the Soviet Republic 19.92 bushels per acre during the period 1923-27.

3. *World's Production.*—The production in 1925, amounting to 4,685 million bushels, was the highest on record. Since that year production has fluctuated but slightly. Totals from 1909 to 1931 were as follow :—

Average 1909 to 1913	..	..	..	4,174,000,000 bushels
1927	..	..	..	4,373,000,000 „
1928	..	..	..	4,386,000,000 „
1929	..	..	..	4,468,000,000 „
1930	..	..	..	4,019,000,000 „
1931	..	..	..	4,470,000,000 „

The United States is the most important maize-producing country in the world. Approximately 100,000,000 acres are planted there annually, and nearly 3,000,000,000 bushels are reaped, representing about 75 per cent. of the world's production. About 85 per cent. of the total is fed to live stock on farms, 10 per cent. is used for human food, and only a very small fraction, viz., 1½ per cent., is exported.

4. *Price of Maize.*—The average wholesale price of maize in the Sydney market for each of the last five years is given in the following table :—

MAIZE.—AVERAGE PRICE, SYDNEY.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Average price per bushel ..	<i>s. d.</i> 4 7	<i>s. d.</i> 4 11¼	<i>s. d.</i> 6 0½	<i>s. d.</i> 4 1	<i>s. d.</i> 3 9

5. *Overseas Imports and Exports.*—The decline in production has necessitated an average annual import of more than 37,500 bushels during the last five years, the bulk of the supplies being furnished by South Africa. Details of imports and exports for the years 1927-28 to 1931-32 are as follow :—

MAIZE.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Imports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1927-28 ..	115,638	25,443	145,402	24,421	— 29,764	1,022
1928-29 ..	773	539	278,289	50,451	— 277,516	— 49,912
1929-30 ..	66,968	13,899	2,339	824	64,629	13,075
1930-31(a) ..	3,945	769	1,498	377	2,447	392
1931-32(a) ..	229	307	2,586	554	— 2,357	— 247

NOTE.—(—) denotes net exports. (a) Australian currency values.

6. *Maize Products.*—A small quantity of corn-flour is imported annually into Australia, the principal countries of supply being the United Kingdom, South Africa, and the United States of America. During the year 1929-30 the imports amounted to 702,062 lb., and represented a value of £7,956 but in 1931-32 the figures fell to 6 lb., valued at £1. Exports from Australia are small, and in 1931-32 amounted to 21,056 lb., valued at £460.

7. Value of Crop.—The value of the crop for the season 1931-32 was as follows:—

MAIZE.—VALUE OF CROP, 1931-32.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	F.C.T.	Australia.
Aggregate value	£ 545,050	£ 130,029	£ 518,257	£ 61	£ 31	..	£ 1,193,428
Value per acre	£5/2/10	£8/5/6	£3/10/2	£8/14/3	£2/16/4	..	£4/8/7

§ 7. Barley.

I. Progress of Cultivation.—(i) *Area and Production.* The area under barley has fluctuated considerably, but results for the last ten years show a tendency towards an increase. The average annual area sown for the decennium 1922-1932 amounted to 346,052 acres, as compared with an average of 231,808 acres for the previous ten years. Victoria was originally the principal barley-growing State, but since 1913-14, South Australia has been the chief producing State, accounting for nearly 71 per cent. of the Australian acreage in 1931-32. Victoria was next in importance with 19 per cent., leaving a small balance of about 10 per cent. distributed among the other States. The figures here given relate to the areas harvested for grain: small areas only are cropped for hay, while more considerable quantities are cut for green forage. These, however, are not included in this sub-section. The area and production of barley for grain in the several States are shown in the following table for the last five years, while the progress since 1860 is illustrated in the graphs herein:—

BARLEY.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AREA.							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28 ..	5,600	76,768	3,220	219,491	12,138	5,101	322,318
1928-29 ..	5,024	75,451	7,654	247,348	14,429	4,613	4354,539
1929-30 ..	7,947	97,678	9,754	305,316	23,649	6,935	4451,339
1930-31 ..	11,526	87,518	8,434	251,957	17,236	6,192	4382,887
1931-32 ..	8,349	66,381	2,223	242,339	14,533	8,377	4342,396
PRODUCTION.							
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1927-28 ..	65,850	1,552,109	72,400	3,001,420	126,835	141,407	4,960,021
1928-29 ..	80,910	1,556,118	107,593	4,583,715	189,560	99,085	6,617,341
1929-30 ..	113,850	2,183,325	205,567	4,656,254	261,870	166,984	7,588,852
1930-31 ..	188,610	1,983,130	173,563	3,960,929	185,301	168,625	6,660,911
1931-32 ..	137,430	1,256,678	36,397	4,572,941	164,580	119,725	6,290,672

(a) Including Federal Capital Territory, 20 acres, 360 bushels.

(b) " " " " 60 acres, 1,002 bushels.

(c) " " " " 24 acres, 753 bushels.

(d) " " " " 194 acres, 2,921 bushels.

The States in which the annual production of barley averaged over 1,000,000 bushels for the past decade were South Australia and Victoria, the yields being respectively 3,959,358 and 1,756,934 bushels, the higher return per acre in the latter State tending to diminish the advantage held by South Australia in regard to acreage.

(ii) *Malting and Other Barley.* (a) *Year 1931-32.* Particulars for the season 1931-32 are as follow :—

**BARLEY, MALTING AND OTHER.—AREA AND PRODUCTION, 1931-32.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Malting barley..	4,268	51,193	1,701	224,387	9,070	7,845	a 299,074
Other barley ..	4,081	15,188	522	17,952	4,863	532	b 43,322
<b>Total ..</b>	<b>8,349</b>	<b>66,381</b>	<b>2,223</b>	<b>242,339</b>	<b>14,533</b>	<b>8,377</b>	<b>c 342,396</b>
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Malting barley..	65,250	952,418	28,882	4,276,581	113,871	110,007	a 5,547,141
Other barley ..	72,180	304,260	7,515	296,360	50,709	9,718	b 743,531
<b>Total ..</b>	<b>137,430</b>	<b>1,256,678</b>	<b>36,397</b>	<b>4,572,941</b>	<b>164,580</b>	<b>119,725</b>	<b>c 6,290,672</b>

(a) Including Federal Capital Territory, 10 acres, 132 bushels.  
 (b) " " " " 184 acres, 2,789 bushels.  
 (c) " " " " 194 acres, 2,921 bushels.

Taking Australia as a whole, about 87 per cent. of the area under barley in 1931-32 was sown with malting barley. The proportion, however, varies largely in the several States.

(b) *Progress of Cultivation.* The following table sets out the acreage and production of malting and other barley in Australia as a whole during the past five seasons :—

**BARLEY, MALTING AND OTHER.—AREA AND PRODUCTION, AUSTRALIA.**

Season.	Acres.			Bushels.			Average Yields per Acre.		
	Malting.	Other.	Total.	Malting.	Other.	Total.	Malting.	Other.	Total.
1927-28 ..	276,483	45,835	322,318	4,040,975	919,046	4,960,021	14.62	20.05	15.39
1928-29 ..	307,154	47,385	354,539	5,691,673	925,668	6,617,341	18.53	19.53	18.66
1929-30 ..	388,854	62,485	451,339	6,438,850	1,150,002	7,588,852	16.56	18.40	16.81
1930-31 ..	328,059	54,828	382,887	5,673,940	986,921	6,660,861	17.30	18.00	17.40
1931-22 ..	299,074	43,322	342,396	5,547,141	743,531	6,290,672	18.55	17.16	18.37
Average 10 seasons 1922-32	294,844	51,207	346,051	5,230,926	968,640	6,199,566	17.74	18.92	17.92

During the past ten seasons the area and production of malting barley have represented almost six times the corresponding figures for other barley. The average yield per acre differs very little in respect of the two classes, the results for the past ten-yearly period being slightly in favour of the Cape variety.

(iii) *Average Yield.* The average yield of barley per acre varies considerably in the different States, being as a rule highest in Victoria and Tasmania, and lowest in Western Australia. Details for each State during the past five seasons, and for the decennium 1922-32, are given in the following table :—

## BARLEY.—YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1927-28 .. ..	11.76	20.22	22.48	13.67	10.45	27.72	15.39
1928-29 .. ..	16.10	20.62	14.06	18.53	13.14	21.48	18.66
1929-30 .. ..	14.33	22.35	21.08	15.25	11.07	24.08	16.81
1930-31 .. ..	16.36	22.66	20.58	15.72	10.75	27.23	17.40
1931-32 .. ..	16.46	18.93	16.37	18.87	11.32	14.29	18.37
Average for 10 seasons 1922-32	15.82	21.45	17.94	17.01	11.52	22.41	17.92

2. **Comparison with Other Countries.**—In comparison with the barley production of other countries, that of Australia appears extremely small. Particulars for some of the leading countries during 1931 are as follows:—United States 190 million bushels; Soviet Republic 270 million bushels; Germany 133 million bushels; India 107 million bushels; and Canada 65 million bushels.

3. **World's Production.**—The area under barley in 1931 showed a decrease of 4 million acres on that of the previous year. Compared with the average for 1909-13, the total under cultivation in 1931, amounting to 89 million acres, increased by about 3,000,000 acres. The production of barley in millions of bushels from 1909 onwards was as follows:—

	Year.	Production.
Average 1909-13	.. ..	1,676 millions of bushels.
1927	.. ..	1,535 "
1928	.. ..	1,820 "
1929	.. ..	1,957 "
1930	.. ..	1,878 "
1931	.. ..	1,642 "

4. **Prices.**—The average price in the Melbourne market during each of the past five years is given in the following table:—

## BARLEY.—AVERAGE MELBOURNE PRICE PER BUSHEL.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Malting barley .. ..	4 7 $\frac{3}{4}$	4 7	4 1	2 11	2 11 $\frac{1}{2}$
Cape barley .. ..	4 3	3 6	3 3 $\frac{3}{4}$	2 2	2 3

5. **Imports and Exports.**—Australian exports of barley during the last five years averaged 1,964,352 bushels. The grain was consigned mainly to the United Kingdom and Belgium, South Australia being the principal exporting State. Particulars of the Australian overseas imports and exports for the past five years are contained in the following table:—

## BARLEY.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1927-28 .. ..	262	108	1,251,444	291,636	1,251,182	291,528
1928-29 .. ..	150	58	1,279,014	228,707	1,278,864	228,649
1929-30 .. ..	1,760	745	647,542	99,046	645,782	98,301
1930-31(a) .. ..	110	59	3,328,652	403,919	3,328,542	403,860
1931-32(a) .. ..	44	16	3,315,110	450,477	3,315,066	450,461

(a) Australian currency values.

In some years there is an export of Australian pearl and Scotch barley, the total for 1931-32 reaching 19,808 lb., valued at £180 consigned mainly to the Pacific Islands.

6. Imports and Exports of Malt.—In pre-war times the imports of malt into Australia were fairly extensive, the supply being obtained principally from the United Kingdom. Since 1914, however, imports have practically ceased, and in 1917-18 and 1920-21 fairly large quantities were exported to South Africa and Japan. Details of imports and exports for the five years ending 1931-32 are given in the next table :—

**MALT.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1927-28 .. ..	365	119	3,593	1,498	3,228	1,379
1928-29 .. ..	508	186	4,958	1,897	4,450	1,711
1929-30 .. ..	133	92	8,185	3,467	8,052	3,375
1930-31(a) ..	38	64	4,253	1,730	4,215	1,666
1931-32(a) ..	5	2	3,805	1,392	3,800	1,390

(a) Australian currency values.

7. Value of Barley Crop.—The estimated value of the barley crop for the season 1931-32 and the value per acre are shown in the following table :—

**BARLEY.—VALUE OF CROP(a), 1931-32.**

Value.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total ..	20,850	182,246	4,268	671,475	23,796	20,500	373	923,508
Per acre ..	£2/10/-	£2/15/-	£1/18/5	£2/15/5	£1/12/9	£2/9/0	£1/18/6	£2/14/-

(a) Exclusive of the value of straw.

**§ 8. Rice.**

Experimental rice cultivation has been carried on at the Yanco Experimental Farm for some years, but it was not until 1924-25 that an attempt was made to grow the cereal on a commercial basis. In that year production amounted to 16,240 bushels from 153 acres, or an average of 106 bushels per acre.

Figures relating to area, production, etc., since 1927-28 will be found in the following table :—

**RICE.—AREA, PRODUCTION, ETC., AUSTRALIA.**

Year.	Area.	Production. Paddy Rice.	Average Yield.	Imports.	Exports.	Retail Price.
	Acres.	Bushels.	Bushels.	Bushels.	Bushels.	Pence per lb.
1927-28 ..	9,901	879,113	88.88	521,776	288	3.79
1928-29 ..	14,058	1,307,641	93.02	237,493	7,250	3.74
1929-30 ..	19,789	1,829,297	92.44	282,489	30,866	3.65
1930-31 ..	19,860	1,427,524	71.88	117,624	200,760	3.58
1931-32 ..	19,589	1,349,869	68.91	96,101	292,453	3.48

The area and production shown in the above table refer chiefly to the Murrumbidgee Irrigation Area. The production from several small experimental plots in other States is also included, but the quantity is negligible. According to the report of the Irrigation Commission of New South Wales, there are about 53,000 acres of land in the irrigation settlements suitable for rice-growing, and it is estimated that at least 40,000 acres could be so used, of which, probably, 20,000 acres would be under fallow each year and 20,000 under crop. Annual local requirements are computed at 1,100,000 bushels, but the production during the past three years has exceeded consumption and the surplus has been exported chiefly to the United Kingdom, Canada, New Zealand, and the Pacific Islands.

### § 9. Other Grain and Pulse Crops.

In addition to the grain crops already specified, the principal other grain and pulse crops grown in Australia are beans, peas, and rye. The total area under the two former crops for the season 1931-32 was 41,627 acres, giving a yield of 496,943 bushels, or an average of 11.96 bushels per acre, being below the average yield for the decennium ended 1931-32, which was 15.31 bushels per acre. Beans and peas are grown chiefly in Tasmania, South Australia and Victoria. Peas are exported in considerable quantities to the United Kingdom, the chief exporting State being Tasmania. The total area under rye in Australia during the season 1931-32 was 4,273 acres, yielding 50,207 bushels, giving an average of 11.75 bushels per acre, as compared with the average for the past ten seasons, i.e., 16.63 bushels per acre. Nearly 43 per cent. of the rye grown during the season was produced in New South Wales, 29 per cent. in South Australia, and 8 per cent. in Victoria.

### § 10. Potatoes.

1. *Progress of Cultivation.*—(i) *Area and Production.* Victoria possesses peculiar advantages for the growth of potatoes, as the rainfall is generally satisfactory, and the climate is unfavourable to the spread of Irish blight, consequently the crop is grown in nearly every district except in the wheat belt. Tasmania comes next in order of importance, followed by New South Wales.

The area and production of potatoes in each State during the last five years are given hereunder:—

#### POTATOES.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28 ..	21,578	77,649	10,035	4,309	5,280	44,359	21	163,231
1928-29 ..	14,830	68,412	8,154	4,518	4,819	37,299	16	138,068
1929-30 ..	12,785	58,789	8,116	4,536	6,024	33,722	8	123,980
1930-31 ..	15,304	67,590	10,277	4,998	6,306	37,229	12	141,716
1931-32 ..	17,522	69,929	10,374	5,996	4,892	36,390	8	145,111
PRODUCTION.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28 ..	47,397	230,348	18,914	17,749	16,746	138,837	50	470,041
1928-29 ..	26,339	140,158	9,687	13,859	18,774	75,222	11	284,050
1929-30 ..	23,907	171,747	13,214	14,990	27,546	91,137	..	342,541
1930-31 ..	32,283	173,341	18,489	18,991	26,318	95,289	13	364,724
1931-32 ..	33,709	206,489	17,189	24,062	20,253	95,389	11	397,102

(a) Includes Northern Territory, 20 acres.

The acreage grown during the last five years was fairly uniform, except in 1927-28, when there was an increase of nearly 24,000 acres, chiefly owing to larger planting in Victoria and Tasmania. The production in 1931-32 amounted to 397,102 tons, as compared with an average of 365,309 tons for the last ten years and 355,996 tons for the previous decennial period. The record production of 507,153 tons was obtained in 1906-7.

(ii) *Average Production.* Particulars for each State for the five seasons ending 1931-32, and for the past decennium, are given hereunder :—

POTATOES.—PRODUCTION YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28 .. ..	2.40	2.97	1.88	4.12	3.17	3.13	2.38	2.88
1928-29 .. ..	1.78	2.05	1.19	3.07	3.90	2.02	0.69	2.06
1929-30 .. ..	1.87	2.92	1.63	3.30	4.57	2.70	1.13	2.76
1930-31 .. ..	2.11	2.56	1.80	3.80	4.17	2.56	1.08	2.57
1931-32 .. ..	1.92	2.95	1.66	4.01	4.14	2.62	1.37	2.74
Averages for 10 seasons 1922-32	2.13	2.71	1.59	3.70	3.91	2.64	2.76	2.62

The comparatively low yield per acre compared with that of many other countries is due in large measure to the neglect of rotation, and the insufficient use of manures. The production in New Zealand, for example, in 1931-32 averaged 4.91 tons per acre from an area of 23,786 acres, as compared with 2.62 tons per acre from 139,734 acres in Australia.

(iii) *Relation to Population.* The average annual production of potatoes per head of the population of Australia for the past five seasons was approximately 130 lb. In Tasmania, where this crop is of far greater importance in relation to population than is the case in any other State, the production per head in 1906-7 was nearly a ton, while for the past five seasons it has averaged almost 10 cwt. Details for all States for the five seasons ending 1931-32 are as follow :—

POTATOES.—PRODUCTION PER 1,000 OF POPULATION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28 .. ..	20	132	21	31	43	643	9	75
1928-29 .. ..	11	80	11	24	46	347	1	45
1929-30 .. ..	10	97	14	26	66	416	..	53
1930-31 .. ..	13	97	20	33	63	432	2	56
1931-32 .. ..	13	115	18	41	48	427	1	61

(iv) *Consumption.* Oversea trade in potatoes is comparatively small, and the consumption in Australia averages between 50 and 60 tons per 1,000 of population, or about 128 lb. per head. From the figures shown above, therefore, it is apparent that New South Wales, Queensland and South Australia do not produce the quantities necessary



for their requirements and must import from Tasmania and Victoria which have a surplus. Assuming that the consumption is uniform in each State, the following table which gives the average annual production and consumption indicates also estimated average annual deficiencies or surpluses for the last five years :—

POTATOES.—PRODUCTION AND CONSUMPTION—STATES, 1928–32.

State.	Average Annual Production.	Average Annual Consumption.	Average Annual Imports.
	1,000 Tons.	1,000 Tons.	1,000 Tons.
New South Wales .. ..	32	141	109
Victoria .. ..	183	102	—81
Queensland .. ..	15	53	38
South Australia .. ..	17	33	16
Western Australia .. ..	21	24	3
Tasmania .. ..	98	13	—85
Australia .. ..	366	366	..

The minus sign (—) denotes average exports.

2. Imports and Exports.—Under normal conditions small quantities of potatoes are exported, principally to the Pacific Islands and Papua. In case of a shortage in any of the States, supplies are usually obtained from New Zealand. Figures showing the trade for the past five years are given in the following table :—

POTATOES.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
1927–28 .. ..	218	1,831	2,132	16,619	1,914	14,788
1928–29 .. ..	4	82	1,766	19,948	1,762	19,866
1929–30 .. ..	52	736	1,173	16,974	1,121	16,238
1930–31(a) .. ..	7	144	1,917	13,948	1,910	13,804
1931–32(a) .. ..	33	418	1,612	13,662	1,579	13,244

NOTE.—The minus sign (—) signifies net imports. (a) Australian currency values.

3. Value of Potato Crop.—The estimated value of the potato crop of each State for the season 1931–32 is given in the following table :—

POTATOES.—VALUE OF CROP, 1931–32.

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total .. ..	219,530	949,849	132,499	115,345	154,935	500,800	72	2,073,030
Per acre .. ..	£12/10/7	£13/11/8	£12/15/5	£19/4/9	£31/13/4	£13/15/3	£9/0/0	£14/5/9

## § 11. Other Root and Tuber Crops.

1. **General.**—Root crops, other than potatoes, are not extensively grown in Australia, the total area under such crops for the season 1931-32 being only 22,171 acres. The most important were onions, mangolds, sugar beet, turnips, and "sweet potatoes." Of these, onions, sugar beet and mangolds are most largely grown in Victoria, turnips in Tasmania, and sweet potatoes in Queensland. The total area under onions in Australia during the season 1931-32 was 6,403 acres, giving a yield of 23,521 tons, and averaging 5.14 tons per acre. The area in 1931-32 under root crops other than potatoes and onions was 15,768 acres, from which a production of 122,642 tons was obtained, or an average of 7.78 tons per acre. The areas and yields here given are exclusive of the production of "market gardens," reference to which is made in § 17.2.

2. **Imports and Exports.**—The only root crop, other than potatoes, in which any considerable oversea trade is carried on by Australia is that of onions. During the past five years 5,934 tons, valued at £55,907, were imported, principally from Japan, the United States of America, and New Zealand, while during the same period the exports which amounted to 16,643 tons, valued at £127,088, were shipped mainly to New Zealand, the Pacific Islands, the Philippine Islands, and Canada.

## § 12. Hay.

1. **General.**—(i) *Area and Production.* As already stated, the chief crop in Australia is wheat grown for grain. Next in importance is hay, which for the season 1931-32 averaged more than 12 per cent. of the total area cropped. In most European countries the hay consists almost entirely of meadow and other grasses, but in Australia a very large proportion consists of wheat, oats and lucerne. The area under hay of all kinds in the several States during the last five years is given hereunder. The progress from 1860 onwards may be traced from the graph accompanying this chapter.

### HAY.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N. Ter.	Fed Cap. Ter.	Aus- tralia.
AREA.									
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28	680,919	908,804	65,412	532,568	357,065	85,769	..	1,682	2,632,219
1928-29	684,730	1,005,063	55,498	497,538	414,866	80,190	..	788	2,738,673
1929-30	698,395	865,015	49,745	544,438	418,698	80,153	..	2,217	2,658,661
1930-31	896,770	1,277,398	52,228	612,935	398,411	83,268	..	2,453	3,323,463
1931-32	612,150	955,839	59,601	539,076	381,447	84,307	..	2,260	2,634,680
PRODUCTION.									
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28	754,176	1,001,251	94,996	464,905	416,707	124,924	..	2,004	2,858,963
1928-29	793,255	1,267,437	85,651	486,993	421,504	119,427	..	971	3,175,238
1929-30	686,962	963,089	79,583	445,579	428,328	119,800	..	1,933	2,725,274
1930-31	1,191,696	1,605,900	87,146	641,273	491,595	128,957	..	3,094	4,149,661
1931-32	811,243	1,069,276	91,275	647,058	453,353	92,595	..	2,659	3,167,459

Owing to various causes, the principal being the variation in the relative prices of grain and hay, and the favourableness or otherwise of the season for a grain crop, the area under hay is liable to fluctuate considerably. The area under hay in Australia during the season 1915-16, i.e., 3,597,771 acres, was the highest on record, whilst the average during the past decennium amounted to 2,929,042 acres.

(ii) *Average Production.* During the last ten years Tasmania and Queensland show the highest average production per acre, although the area sown in these States is the smallest. For the same period the lowest yield for Australia as a whole was that of 21 cwt. per acre in 1929-30, while the highest was that of 29 cwt. in 1920-21, followed closely by 27 cwt. obtained in 1924-25. The average for the decennium was 24 cwt. Particulars for the several States for the seasons 1927-28 to 1931-32 and the average for the last ten years are given hereunder :—

#### HAY.—PRODUCTION PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28 .. ..	1.11	1.10	1.45	0.87	1.17	1.46	..	1.19	1.09
1928-29 .. ..	1.16	1.26	1.54	0.98	1.02	1.49	..	1.23	1.16
1929-30 .. ..	0.98	1.11	1.60	0.82	1.02	1.49	..	0.87	1.03
1930-31 .. ..	1.33	1.26	1.67	1.05	1.23	1.55	..	1.26	1.25
1931-32 .. ..	1.33	1.12	1.53	1.20	1.19	1.10	..	1.18	1.20
Average for 10 seasons 1922-1932 .. ..	1.23	1.20	1.42	1.11	1.10	1.44	1.50	1.22	1.19

(iii) *Varieties Grown.* Information in regard to the crops cut for hay is available for all States excepting Tasmania. It is known, however, that oaten hay constitutes the most important variety grown in the island State.

Details for the past five seasons are given in the following table :—

#### HAY.—VARIETIES GROWN.

Varieties.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	Acres.	Acres.	Acres.	Acres.	Acres.
<b>NEW SOUTH WALES—</b>					
Wheaten .. ..	369,960	375,270	381,071	520,993	292,234
Oaten .. .. .	200,872	214,137	226,025	278,865	222,212
Barley .. .. .	615	817	1,294	1,081	740
Lucerne .. ..	109,194	94,275	89,385	95,181	96,396
Other.. .. .	278	231	620	650	568
<b>Total .. .. .</b>	<b>680,919</b>	<b>684,730</b>	<b>698,395</b>	<b>896,770</b>	<b>612,150</b>

HAY.—VARIETIES GROWN—*continued.*

Varieties.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	Acres.	Acres.	Acres.	Acres.	Acres.
<b>VICTORIA—</b>					
Wheaten .. ..	224,454	135,718	165,564	188,360	139,683
Oaten .. ..	659,983	845,731	675,256	1,049,019	781,932
Lucerne, etc. .. ..	24,367	23,614	24,195	40,019	34,224
Total .. ..	908,804	1,005,063	865,015	1,277,398	955,839
<b>QUEENSLAND—</b>					
Wheaten .. ..	3,637	4,585	3,811	10,645	5,282
Oaten .. ..	2,468	2,192	2,608	4,280	1,617
Lucerne .. ..	48,346	45,476	40,013	34,845	47,547
Other .. ..	10,961	3,245	3,313	2,458	5,155
Total .. ..	65,412	55,498	49,745	52,228	59,601
<b>SOUTH AUSTRALIA—</b>					
Wheaten .. ..	289,219	270,805	318,239	321,295	250,285
Oaten .. ..	233,709	218,140	212,956	275,526	273,375
Lucerne .. ..	5,649	4,833	5,447	6,390	5,660
Other .. ..	3,991	3,760	7,796	9,724	9,736
Total .. ..	532,568	497,538	544,438	612,935	539,076
<b>WESTERN AUSTRALIA—</b>					
Wheaten .. ..	223,827	250,786	209,893	192,345	197,982
Oaten .. ..	130,109	160,675	198,529	192,243	167,326
Lucerne .. ..	120	184	293	234	190
Other .. ..	3,009	3,221	9,983	13,589	15,949
Total .. ..	357,065	414,866	418,698	398,411	381,447

Wheat is most largely used for hay in New South Wales, South Australia, and Western Australia, oats in Victoria and Tasmania, and lucerne in Queensland. For all States the proportions of the principal kinds of hay produced average about 54.1 per cent. for oats, 35.1 per cent. for wheaten, 9.3 per cent. for lucerne, and 1.5 per cent. for other hay.

2. **Comparison with Other Countries.**—As already noted, the hay crops of most European countries consist of grasses of various kinds, amongst which clover, lucerne, sainfoin and rye grass occupy prominent places. The statistics of hay production in these countries are not prepared on a uniform basis, consequently any attempt to furnish extensive comparisons would be misleading. It may be noted, however, that in Great Britain the production of hay from clover, sainfoin, etc., for the year 1932 amounted to 2,836,000 tons from 1,935,000 acres, while from permanent grasses a yield of 4,919,000 tons of hay was obtained from 4,709,000 acres, giving a total of 7,755,000 tons from 6,644,000 acres, or about 23 cwt. per acre.

3. **Imports and Exports.**—Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not in such circumstances figure largely amongst the imports and exports of Australia. During 1931-32, 154 tons were imported, while the exports amounted to 3,111 tons, valued at £15,756 the principal purchases being made by Malaya (British), India, Ceylon, and Hong Kong.

4. **Value of Hay Crop.**—The following table shows the value, and the value per acre, of the hay crop of the several States for the season 1931-32 :—

**HAY.—VALUE OF CROP, 1931-32.**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total Value ..	2,657,110	2,455,325	401,133	1,035,293	1,240,901	347,230	8,318	8,145,310
Value per acre ..	£4/6/10	£2/11/5	£6/14/8	£1/18/5	£3/5/1	£4/2/4	£3/13/8	£3/1/10

**§ 13. Green Forage.**

1. **Nature and Extent.**—A considerable area is devoted to the production of green forage, mainly in connexion with the dairying industry. The total area so cropped is considerably swollen in adverse seasons by the inclusion of wheat or other cereal crops deemed unsuitable for the production of either grain or hay. Under normal conditions, the principal crops cut for green forage are maize, sorghum, oats, barley, rye, rape, and lucerne, while small quantities of sugar-cane also are so used. Particulars concerning the area under green forage in the several States during each of the last five years are given in the following table :—

**GREEN FORAGE.—AREA.**

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28	848,042	94,895	155,843	184,782	32,241	23,409	..	8	1,389,220
1928-29	264,699	107,351	180,524	155,460	125,311	25,402	..	837	859,584
1929-30	356,903	169,253	208,624	86,500	132,505	23,245	..	465	977,495
1930-31	310,341	126,347	217,282	59,956	107,384	23,438	..	662	845,410
1931-32	367,346	119,006	309,957	58,604	101,370	23,024	..	724	980,031

2. **Value of Green Forage Crops.**—The value of these crops is variously estimated in the several States, and the Australian total for the season 1931-32 may be taken approximately as £2,641,986 or about £2 13s. 11d. per acre.

**§ 14. Sugar-cane and Sugar-beet.**

1. **Sugar-cane.**—(i) *Area.* Sugar-cane for sugar-making purposes is grown only in Queensland and New South Wales, and much more extensively in the former than in the latter State. Thus, of a total area of 325,737 acres under sugar-cane in Australia for the season 1931-32, there were 309,818 acres, or about 95 per cent., in Queensland. Sugar-cane growing appears to have been started in Australia in or about 1862, as the earliest statistical record of sugar-cane as a crop is that which credits Queensland with an area of 20 acres for the season 1862-63. In the following season the New South Wales returns show an area of 2 acres under this crop. The area under cane in New South Wales reached its maximum in 1895-96 with a total of 32,927 acres. Thenceforward, with slight variations, it gradually fell to 10,490 acres in 1918-19, but from that year it expanded until 1924-25, when about 20,000 acres were planted. Later, however, the area declined, and in 1931-32 only 15,919 acres were under cultivation. In Queensland, although fluctuations in area are manifest, the general trend has been upwards, the acreage under cane for the season 1931-32 being the highest on record. The area under sugar-cane in Australia from 1927-28 is given in the following table, and particulars for earlier years may be seen from the accompanying graphs.

## SUGAR-CANE.—AREA.

Season.	New South Wales.		Queensland.		Australia.		
	Productive.	Unproductive.	Productive.	Unproductive.	Productive.	Unproductive.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28 ..	8,556	7,905	203,748	71,090	212,304	78,995	291,299
1928-29 ..	6,783	9,055	215,674	67,802	222,457	76,857	299,314
1929-30 ..	7,967	7,458	214,880	76,780	222,847	84,238	307,085
1930-31 ..	7,617	8,007	222,044	74,026	229,661	82,033	311,694
1931-32 ..	8,272	7,647	233,304	76,514	241,576	84,161	325,737

(ii) *Productive and Unproductive Cane.* The areas given in the preceding table do not include the small acreage cut for green forage. The whole area was not necessarily cut for crushing during any one season, there being always a considerable amount of young and "stand-over" cane, as well as a small quantity required for plants. The season in which the highest acreage is recorded may not show the greatest area of productive cane cut for crushing, as was evidenced in 1923-24, when, although the total acreage was greater, the area cut was less than in the previous year.

(iii) *Production of Cane and Sugar.* For Queensland, statistics of the production of sugar-cane are not available for dates prior to the season 1897-98. In that season the total for Australia was 1,073,883 tons, as against the maximum production of 4,213,453 tons in 1931-32. The average production of cane during the decennium ended 1931-32 was 3,547,757 tons. The three highest yields of sugar were in 1931-32, 1929-30, and 1928-29, the quantities being 603,735 tons, 538,084 tons, and 537,574 tons respectively. The decennial average was 467,765 tons of sugar. Particulars relative to the total production of cane and sugar for the past five years are as follows:—

## SUGAR-CANE.—PRODUCTION OF CANE AND SUGAR.

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.	Cane.	Sugar.	Cane.	Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28 ..	208,612	23,349	3,555,827	485,745	3,764,439	509,094
1928-29 ..	147,414	16,954	3,736,311	520,620	3,883,725	537,574
1929-30 ..	174,110	19,568	3,581,265	518,516	3,755,375	538,084
1930-31 ..	160,209	18,841	3,528,660	516,783	3,688,869	535,624
1931-32 ..	179,153	22,459	4,034,300	581,276	4,213,453	603,735

The production of raw sugar in Australia in 1931-32 amounted to 603,735 tons manufactured from 4,213,453 tons of cane. These figures show a large increase on the returns for the previous year and are the greatest quantities produced in any year. The assistance mentioned hereafter given by the Commonwealth and State Governments during recent years has greatly benefited the sugar industry. In 1921-22 the area cultivated in Queensland was 184,513 acres and the number of cane farmers was 4,465, whereas in 1931-32 309,818 acres were under cultivation and the number of growers had risen to 7,392 or an increase of 2,937 in the ten years. Official data are not available regarding the total number engaged in the sugar industry in Queensland, but the average number of persons employed in sugar mills is given as approximately 6,000. In addition, it is unofficially estimated that 15,000 persons are engaged as cane cutters and field workers. The total number of persons directly engaged in the industry in Queensland may therefore be estimated as approximately 28,000.

Final figures for the 1932-33 season are not yet complete, but it is anticipated from the data available that the production of raw sugar will amount to 534,500 tons from 3,730,810 tons of cane crushed. Early indications point to a slightly larger crop in 1933-34, and it is anticipated that the production will amount to about 567,000 tons of raw sugar.

(iv) *Average Production of Cane and Sugar.* Owing to climatic variation, comparison between the average yield of cane per productive acre in Queensland and New South Wales cannot be accurately made except on an annual basis. In New South Wales between 20 and 24 months are required for the crop to mature, but in Queensland 12 to 14 months is sufficient. After making due allowance on this score, therefore, the average annual yield of cane per productive acre for the decennium ending 1931-32 was for New South Wales, 13.48 tons, and 16.16 tons for Queensland. Similarly, the production of sugar per acre for the same period is estimated at 1.55 tons and 2.15 tons respectively. Leaving aside the consideration mentioned above, the yield of cane and sugar per acre crushed for Australia for the ten years ending 1931-32 was 17.79 tons and 2.35 tons respectively, as compared with 17.89 tons and 2.11 tons for the decennium ended 1921-22.

(v) *Quality of Cane.* The quantity of cane required to produce a ton of sugar varies with the variety planted, the district, and the season, and for the decennium ended 1931-32 averaged 7.58 tons, the average production of sugar being 13.19 per cent. of the weight of cane crushed. As the result of the systematic study of cane culture in Queensland, the sugar content of the cane has been considerably increased in recent years, and in 1930 only 6.83 tons of cane were required to produce one ton of sugar. It is believed that this is the highest sugar content obtained anywhere in the world. During the ten years ended 1921-22 it required on the average 8.46 tons of cane to produce one ton of sugar, whereas the average figure for the past decennium was reduced to 7.58 tons.

#### SUGAR-CANE AND SUGAR.—YIELD PER ACRE.

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28 .. ..	24.38	2.73	8.93	17.45	2.38	7.32	17.73	2.40	7.39
1928-29 .. ..	21.73	2.50	8.69	17.32	2.41	7.18	17.46	2.42	7.22
1929-30 .. ..	21.85	2.46	8.90	16.67	2.41	6.91	16.85	2.41	6.98
1930-31 .. ..	21.03	2.47	8.50	15.89	2.33	6.83	16.06	2.33	6.89
1931-32 .. ..	21.66	2.72	7.98	17.29	2.49	6.94	17.44	2.50	6.98
Average 10 seasons, 1922-32 ..	24.72	2.84	8.72	17.51	2.33	7.53	17.79	2.35	7.58

The Bureau of Sugar Experiment Stations in Queensland is rendering useful service to the sugar industry by advocating and demonstrating better methods of cultivation, the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane.

(vi) *Relation to Population.* The yield of sugar in Australia during the past five years was more than sufficient to supply local requirements, the average production during the period amounting to 191 lb. per head of population. Figures for the period 1927-28 to 1931-32 are as follow :—

## SUGAR.—PRODUCTION PER HEAD OF POPULATION.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	lb.	lb.	lb.	lb.	lb.
New South Wales ..	22	16	18	19	20
Queensland .. ..	1,210	1,272	1,248	1,221	1,351
Australia .. ..	183	190	188	185	207

(vii) *Consumption.* The average annual consumption of raw sugar during the five years ending 1931-32 is estimated at 340,666 tons, equal to 119 lb. of raw sugar or 114 lb. of refined sugar per head of population. Sugar contained in jam, preserved fruit, milk, etc., exported during the period has not been taken into account in arriving at the figures quoted. The quantity of sugar used during the last three years in factories is shown in the following table, the figures including, where necessary, estimates of consumption based on the sugar contents of the finished product.

## SUGAR.—CONSUMPTION IN FACTORIES, AUSTRALIA.

Factories.	1928-29.	1929-30.	1930-31.	1931-32.
	Tons.	Tons.	Tons.	Tons.
Aerated Waters and Cordials ..	11,063	8,958	6,316	5,665
Bacon Factories .. ..	125	113	102	96
Bakeries—including Cakes and Pastry ..	8,575	8,815	7,267	5,920
Biscuits .. ..	5,837	5,385	4,359	4,207
Breweries .. ..	15,264	13,836	10,939	9,170
Condensed and Concentrated Milk ..	8,975	7,503	6,133	6,731
Confectionery .. ..	24,275	23,166	16,940	16,277
Jams, Jellies and Preserved Fruit ..	27,779	29,186	22,786	26,329
Jelly Crystals .. ..	1,269	1,177	896	556
Total .. ..	103,162	98,139	75,738	74,951

2. *Sugar-beet.*—(i) *Area and Production.* Victoria is the only State at present growing beets for sugar, and particulars in regard to acreage and production for the last five years are incorporated in the table below :—

## SUGAR-BEET.—AREA AND PRODUCTION, VICTORIA.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Area harvested .. acres	2,353	2,130	2,500	3,045	3,173
Production .. tons	25,438	15,237	26,525	38,291	43,209
Average per acre ..	10.81	7.15	10.61	12.58	13.62
Sugar produced ..	2,352	2,096	3,472	5,095	5,428



Seasonal conditions were particularly favourable during 1931-32, the production amounting to 43,209 tons of beet, from which 5,428 tons of sugar were obtained. The quantity of beet required to produce one ton of sugar was 7.96 tons, as compared with 7.52 tons for the previous year. The average production per acre was 13.62 tons, and the average for the ten years ended 1932 was 11.06 tons.

(ii) *Encouragement of Beet-growing.* During recent years efforts have been made to expand the industry, and the Victorian Government has advanced its irrigation scheme on the Macalister River to provide an increased water supply for the district. A fine grade of white sugar is manufactured at Maffra, and considerable quantities of beet pulp and molasses are distributed for stock feed.

3. **Sugar Bounties.**—An account of the various Acts in connexion with sugar bounties and sugar excise tariffs will be found on pages 394 to 396 of Year Book No. 6. In 1912 the Sugar Excise Repeal Act and the Sugar Bounty Abolition Act were passed by the Federal Parliament, conditionally on the Queensland Parliament approving of legislation prohibiting the employment of coloured labour in connexion with the industry. The State Sugar Cultivation Act, the Sugar Growers Act, and the Sugar Growers' Employees Act of 1913 having been approved of, the 1912 Federal Acts, which repeal all previous enactments in regard to excise on sugar and bounty on cane, came into force by proclamation in July, 1913.

4. **Sugar Purchase by Commonwealth Government.**—The steps taken by the Commonwealth Government in connexion with this matter were alluded to in previous issues of the Year Book. (See No. 18, p. 720.)

5. **Sugar Agreement—Embargo on Imports, etc.**—By agreement between the Commonwealth and Queensland Governments in 1925, it was arranged that the embargo on the importation of foreign sugar which was first introduced in September 1915, should be extended for three years from 1st September, 1925. The price payable for the raw sugar needed for home consumption was fixed at £27 per ton, less £1 per ton to defray administrative and general expenses of the Sugar Board, and to provide special concessions to certain consumers of sugar, while for that portion reserved for export, the price was fixed at a much lower figure, the latter of course being subject to realization adjustments. The embargo was later extended for a further period of three years until 1st August, 1931, on practically the same terms as previously. In response to representations, the Commonwealth Government appointed a Committee of Inquiry on the 23rd August, 1930, to report on the industry. The Committee consisted of eight members, representing the various interests concerned. The reports of the Committee were made available in March, 1931, and the renewal of the sugar agreement with certain modifications was recommended. The terms of the present agreement follow largely on those previously in force, particularly as regards the embargo on imports and fixation of prices. The assistance to the fruit industry has, however, been increased from £205,000 per annum to £315,000 by way of grant from the sugar industry. The agreement was signed on 1st June, 1931, and remains in force for a period of five years from 1st September, 1931. In 1932, however, conferences were arranged between the Commonwealth Government and representatives of the industry. It was decided that the Sugar Agreement of 1931-36 should be amended to provide for a reduction in the retail price of sugar by  $\frac{1}{2}$ d. per lb. from 1st January, 1933, and that the reduced retail price of 4d. per lb. should continue until the end of the period of the agreement (31st August, 1936). It was recommended also that the amount of assistance to the fruit industry should be reduced by £115,000 to £200,000. Legislation for the ratification of these proposals was assented to on 5th December, 1932.

6. **Net Return for Sugar Crop.**—Final calculations by the Sugar Board regarding the disposal of the crop, net value of exports and the average price for the crop will be found in the following table:—

## SUGAR.—NET RETURN, ETC., FOR CROP, AUSTRALIA.

Year.	Percentage Exported.	Net Value of Exports per Ton.	Average Price per Ton for Whole Crop.	Estimated Total Value of Crop.
	Per cent.	£ s. d.	£ s. d.	£
1928-29 .. ..	35.70	10 10 0	20 17 11	11,002,000
1929-30 .. ..	37.71	9 17 0	20 8 2	10,713,000
1930-31 .. ..	39.23	8 5 0	19 12 11	10,196,500
1931-32 .. ..	49.84	9 7 0	18 2 11	10,687,000
1932-33 .. ..	36.80	8 5 9	18 17 9	10,413,000

The estimated value of the crop is obtained by applying the wholesale price of £26 per ton to the quantity locally consumed and the net value per ton of exports to the quantity exported and adding the totals so obtained.

7. Imports and Exports of Sugar.—Owing to the embargo and the increased production of sugar in Australia, the imports have dwindled to insignificant proportions. Supplies to make up for local deficiencies are usually drawn from Java and Fiji. Particulars concerning the imports and exports of cane sugar for the past five years are as follow :—

## SUGAR.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
1926-27 .. ..	3,611	47,844	66,523	1,140,315	62,912	1,092,471
1927-28 .. ..	20	457	154,654	2,191,576	154,634	2,191,119
1928-29 .. ..	11	241	199,497	2,391,469	199,486	2,391,228
1929-30 .. ..	12	192	181,745	2,217,176	181,733	2,216,984
1930-31(a) .. ..	..	1	199,161	1,805,897	199,161	1,805,896
1931-32(a) .. ..	..	6	287,920	2,514,724	287,920	2,514,718

(a) Australian currency values.

The export value quoted in the above table represents the value f.o.b. at which the sugar is sold overseas.

8. Sugar By-products.—Large quantities of molasses are produced as a by-product in the sugar mills. Details for a series of years of the quantity produced and the proportions used for distilling, fuel, manure and other purposes will be found in Chapter XXII. —“Manufacturing.” A distillation plant erected at the Plane Creek Central Sugar Mill, Mackay, was opened during 1927 and produces power alcohol of excellent quality.

A building material known as “megass board” can be made from megass or bagasse, i.e., the residuum of crushed fibre after the removal of the sugar content from the sugar cane, and the possibility of the manufacture of artificial silk from the same material has also been considered. Up to the present, however, there is no record of commercial production of these commodities.

9. Sugar Prices.—The prices of sugar in Australia from 1915 to 1936 are shown in the table below. During recent years the prices were fixed in accordance with the agreement referred to previously.

## SUGAR.—PRICES, AUSTRALIA.

Date of Determination.	Raw Sugar.			Refined Sugar.		
	Price to Grower and Miller per Ton.			Wholesale Price per Ton.		Retail Price per lb.
	£	s.	d.	£	s.	d.
19.7.15 to 15.1.16 .. .. .	18	0	0	25	10	0
16.1.16 to 30.6.17 .. .. .	18	0	0	29	5	0
1.7.17 to 24.3.20 .. .. .	21	0	0	29	5	0
25.3.20 to 30.6.20 .. .. .	21	0	0	49	0	0
1.7.20 to 31.10.22 .. .. .	30	6	8	49	0	0
1.11.22 to 30.6.23 .. .. .	30	6	8	42	0	0
1.7.23 to 21.10.23 .. .. .	27	0	0	42	0	0
22.10.23 to 31.8.25 .. .. .	26	0	0	37	11	4
1.9.25 to 31.8.31 .. .. .	(a)26	10	0	37	6	8
1.9.31 to 4.1.33 .. .. .	26	0	0	37	6	8
5.1.33 to 31.8.36 .. .. .	23	0	0	33	4	0

(a) The price of raw sugar for the years 1925 to 1931 is estimated at £26 10s. per ton, but as the result of the values received for the surpluses exported, the actual price obtained in 1925-26 was £19 10s. 7d.; in 1926-27, £24 10s. 10d.; in 1927-28, £22 0s. 4d.; in 1928-29, £20 17s. 11d.; in 1929-30, £20 8s. 2d.; in 1930-31, £19 12s. 11d.; in 1931-32 £18 2s. 11d.; and in 1932-33 £18 17s. 9d.

## § 15. Vineyards.

1. Progress of Cultivation.—(i) *Area of Vineyards.* The date of introduction of the vine into Australia has been variously set down by different investigators, the years 1815 and 1828 being principally favoured. It would seem, however, that plants were brought out with the first fleet in 1788, consequently the Australian vine is as old as Australian settlement. As already mentioned, a report by Governor Hunter gives the area under vines in 1797 as 8 acres. From New South Wales the cultivation spread to Victoria and South Australia, and these States have now far outstripped the mother State in the area under this crop. In Queensland and Western Australia also, vine growing has been carried on for many years, but little progress has been made. In Tasmania the climate is not favourable to the growth of grapes. The purposes for which grapes are grown in Australia are three in number, viz. :—(a) for wine-making, (b) for table use, and (c) for drying. The total area under vines in the several States during each of the last five years is given in the following table, while particulars from 1860 onwards may be gathered from the graph accompanying this chapter.

## VINEYARDS.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28.. ..	14,880	40,988	1,762	50,663	4,959		113,252
1928-29.. ..	15,200	41,565	1,787	51,802	4,943		115,297
1929-30.. ..	15,589	40,594	1,749	52,329	4,964		115,225
1930-31.. ..	15,363	38,720	1,687	52,234	4,966		112,970
1931-32.. ..	15,360	38,215	1,749	52,498	5,139	There are no vineyards in Tasmania.	112,961

The area under vines in Australia amounted to 65,673 acres in 1904-5. From that year onwards a gradual decline set in, and at the end of 1914-15 the acreage had decreased to 60,985. Since that date, however, as a result of extensive plantings, particularly of varieties suitable for drying, the 1904-5 figure was soon exceeded, and the area for 1928-29 was the highest on record. In 1930-31, however, there was again a decline of 2,255 acres as compared with 1929-30, while in 1931-32 no change was recorded.

(ii) *Report on the Wine Industry.* An investigation into conditions in the wine industry was undertaken by the Commonwealth Director of Development and the Senior Inspector of Excise, Department of Trade and Customs, and a comprehensive report was presented to Parliament on the 17th July, 1931.

(iii) *Wine Production, Bounties, etc.* The production of wine has not increased as rapidly as the suitability of soil and climate would appear to warrant, owing chiefly to two causes. In the first place Australians are not a wine-drinking people, and consequently do not provide a local market for the product. Secondly, the comparatively new and unknown wines of Australia must compete in the markets of the old world with the well-known and long-established brands from other countries. Continued efforts are made to bring the Australian wines under notice, while the Commonwealth bounty on the export of fortified wine of specified strength has greatly benefited the industry. The bounty was increased to 1s. 9d. per gallon from 13th March, 1930, under the *Wine Export Bounty Act 1930* which provides that this rate will be paid until the 28th February, 1935. At the Imperial Economic Conference at Ottawa in 1932, the margin of preference to be granted by the Government of the United Kingdom is 2s. per gallon on Australian wines not exceeding 27 degrees of proof spirit. Hitherto the duties imposed were as follow:—Empire wines not exceeding 27 degrees, 2s. per gallon, Foreign wines not exceeding 25 degrees, 3s. per gallon, a margin of preference of 1s. per gallon. The margin of 2 degrees in the strength of Empire wines is also considered a measure of preference. New or additional preferences are also hoped for from certain Crown Colonies and Protectorates. The bulk of the wine exported from Australia contains more than 27 degrees of proof spirit, consequently, under the present (1932) duties in force in the United Kingdom, Australian wines of a strength exceeding 27 but under 42 degrees enjoy a preference of 4s. per gallon.

The quantity of wine produced in the several States during the past five seasons is given in the table hereunder:—

## WINE.—PRODUCTION.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	No produc- tion of wine in Tasmania.	Gallons.
1927-28 ..	2,295,030	1,739,560	38,571	12,820,733	408,717		17,302,611
1928-29 ..	1,481,846	1,942,701	37,210	14,828,968	309,524		18,600,249
1929-30 ..	1,933,709	1,363,575	48,174	12,406,017	317,637		16,069,112
1930-31 ..	1,335,882	1,254,615	48,899	10,131,034	307,788		13,078,218
1931-32 ..	1,589,707	1,530,061	41,456	10,664,546	364,752		14,190,522

2. *Imports and Exports of Wine.*—(i) *Imports.* The principal countries of origin of wine imported into Australia are France, Spain, Portugal, and Italy the bulk of the sparkling wines coming from France. The imports for the past five years are given hereunder:—

## WINE.—IMPORTS, AUSTRALIA.

Year.	Quantity.			Value.(a)		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1927-28 ..	20,737	55,403	76,140	45,703	33,997	79,700
1928-29 ..	20,212	56,171	76,383	50,576	32,948	83,524
1929-30 ..	16,833	64,286	81,119	42,434	36,242	78,676
1930-31 ..	2,314	13,166	15,480	6,095	7,068	13,163
1931-32 ..	325	8,098	8,423	1,026	5,224	6,250

(a) Australian currency values.

(ii) *Exports.* Wine is exported from Australia chiefly to the United Kingdom and New Zealand, although the share of the latter country is comparatively small. Exports for the past five years are given in the following table:—

## WINE.—EXPORTS, AUSTRALIA.

Year.	Quantity.			Value.(a)		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1927-28 ..	2,744	3,770,035	3,772,779	5,577	1,056,831	1,062,408
1928-29 ..	2,932	1,738,047	1,740,979	5,685	495,299	500,984
1929-30 ..	2,884	2,181,253	2,184,137	4,439	551,682	556,121
1930-31 ..	2,224	2,205,983	2,208,207	3,684	506,368	510,052
1931-32 ..	4,123	3,471,462	3,475,585	6,705	901,837	908,542

(a) Australian currency values.

3. *Other Viticultural Products.*—(i) *Table Grapes.* Grapes for table use are grown in all the States except Tasmania, but the greatest development in the industry has taken place in the drying of raisins and currants, particularly in Victoria and South Australia. The quantities of table grapes grown during the past five seasons are as follow:—

## TABLE GRAPES.—PRODUCTION.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1927-28 ..	4,250	3,338	1,474	581	2,642	..	12,285
1928-29 ..	4,278	3,909	1,535	899	2,811	..	13,432
1929-30 ..	4,216	3,845	1,642	752	2,900	..	13,355
1930-31 ..	3,680	3,799	2,067	891	2,835	..	13,272
1931-32 ..	3,542	3,807	1,961	670	3,053	..	13,033

(ii) *Raisins and Currants.* The quantities of raisins (sultanas and lexias) and currants dried during each of the past five seasons are given in the following table :—

**RAISINS(a) AND CURRANTS.—PRODUCTION.**

Season.	N.S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
1927-28 ..	1,542	227	20,116	3,655	2,757	2,521	810	1,222	25,225	7,625
1928-29 ..	3,004	488	38,556	9,499	10,527	8,207	602	1,311	52,689	19,505
1929-30 ..	4,170	542	39,183	8,911	10,562	8,094	652	1,332	54,567	18,879
1930-31 ..	2,364	425	22,377	7,834	7,825	7,588	651	1,738	33,217	17,585
1931-32 ..	3,043	497	29,702	7,832	9,234	7,820	797	1,428	42,776	17,577
Average 10 seasons 1922-32	1,970	386	25,496	6,839	7,127	6,067	565	1,062	35,158	14,354

(a) Sultanas and Lexias.

4. *Imports and Exports of Raisins and Currants.*—The following table gives the overseas imports and exports of raisins and currants during each of the past five years :—

**RAISINS AND CURRANTS.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.

**RAISINS.**

	tons.	£	tons.	£	tons.	£
1927-28 ..	48	4,388	24,236	1,398,595	24,188	1,394,207
1928-29 ..	148	7,002	33,575	1,620,307	33,427	1,613,305
1929-30 ..	83	4,777	35,413	1,486,580	35,330	1,481,803
1930-31(b) ..	(a)	24	39,803	1,606,735	39,803	1,606,711
1931-32(b) ..	(a)	80	29,454	1,353,987	29,454	1,353,907

**CURRANTS.**

1927-28 ..	(a)	4	3,667	177,605	3,667	177,601
1928-29 ..	(a)	30	13,326	597,917	13,326	597,887
1929-30 ..	(a)	17	14,867	621,192	14,867	621,175
1930-31(b) ..	(a)	1	14,381	578,037	14,381	578,036
1931-32(b) ..	(a)	30	13,505	597,698	13,505	597,668

(a) Quantity negligible.

(b) Australian currency values.

Since 1912 Australia has not only produced sufficient quantities of raisins and currants for home consumption, but has been able to maintain a large export trade. The average annual production for the decennium ended 1931-32 exceeded 49,000 tons, of which 12,500 tons satisfied local requirements, leaving a surplus averaging 36,500 tons available for export. Under favourable conditions the production has reached 73,000 tons. The chief countries importing Australian raisins and currants are the United Kingdom, Canada and New Zealand, which take 80 per cent., 13 per cent. and 5 per cent. respectively of the average quantity exported. Under the terms of the agreement reached at the Imperial Economic Conference at Ottawa in 1932, it is proposed to increase the tariff in the United Kingdom from 7s. per cwt. to 10s. 6d. per cwt. on raisins imported from foreign countries. As already stated, the United Kingdom absorbs 80 per cent. of Australia's exports, and the proposed preference will therefore prove of considerable

benefit to the Australian grower. The existence of the Anglo-Grecian Trade Treaty, however, precludes any immediate prospect of an advance in the present rate of preference—2s. per cwt.—being secured on Australian currants imported into Great Britain. The exports to Canada have increased from 3,000 tons in 1929 to nearly 10,000 tons in 1932.

5. **Marketing of Raisins and Currants.**—The Dried Fruits Control Board appointed under the Dried Fruits Export Control Act has power to regulate the export, and sale and distribution after export, of Australian sultanas, lexias and currants. The Board, with an agency in London, is financed by an export levy charged on all dried fruits exported.

The regulation of sales and fixation of prices in Australia is in the hands of the Australian Dried Fruits Association, which has, in addition, power to regulate interstate transfers. The prices fixed for home consumption are somewhat higher than those realized on exports overseas, as will be seen from the next table.

6. **Prices of Australian Raisins and Currants.**—The average prices of Australian raisins and currants both locally and in Great Britain during the last five years will be found in the following table:—

#### RAISINS AND CURRANTS.—PRICES.

Year	Average Wholesale Price per lb.— Australia.		Average Price per lb.— Great Britain.	
	Sultanas.	Currants.	Sultanas.	Currants.
	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
1927-28 .. ..	6½	7½	3¾	6
1928-29 .. ..	6¾	7½	4	4½
1929-30 .. ..	7	7¼	4½	3¾
1930-31 .. ..	7½	7	6¼	4½
1931-32 .. ..	7½	7	5½	4

### § 16. Orchards and Fruit Gardens.

1. **Progress of Cultivation.**—(i) *Total Area.* The greatest area under orchards and fruit gardens was 281,149 acres in 1921-22. Since that year the area has declined slightly owing to difficulty in disposing of the surplus production. The total area under orchards and fruit gardens in the several States is given in the following table:—

#### ORCHARDS AND FRUIT GARDENS.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28 .. ..	76,999	81,397	36,206	30,983	18,393	33,834	14	277,826
1928-29 .. ..	76,009	79,322	38,452	30,836	18,735	34,087	35	277,476
1929-30 .. ..	77,532	80,820	38,412	30,073	18,855	32,159	53	277,904
1930-31 .. ..	78,176	79,490	37,102	29,630	19,333	32,561	55	276,347
1931-32 .. ..	79,890	76,834	34,974	29,077	19,530	32,403	48	272,756

2. **Varieties of Crops.**—(i) *General.* The varieties grown differ in various parts of the States, ranging from such fruits as the pineapple, paw-paw, mango, and guava of the tropics to the strawberry, the raspberry, and the currant of the colder parts of the temperate zone. The principal varieties grown in Victoria are the apple, peach, pear, orange, plum, and apricot. In New South Wales citrus fruits (oranges, lemons, etc.) occupy the leading position, although apples, peaches, plums, pears, cherries and bananas

are extensively grown. In Queensland, the banana, the pineapple, the apple, the orange, the peach, the plum, and the coco-nut are the varieties most largely cultivated. In South Australia, in addition to the apple, orange, apricot, plum, peach, and pear, the almond and the olive are extensively grown. In Western Australia, the apple, orange, pear, plum, peach, apricot and fig are the chief varieties. In Tasmania, the apple occupies nearly four-fifths of the fruit-growing area, but small fruits, such as the currant, raspberry, and gooseberry are extensively grown, while the balance of the area is taken up with the pear, apricot, plum, and cherry. The following tables give the acreage—bearing and non-bearing—under the principal kinds of fruit, and the quantity and value of fruit produced. Although statistics of area are not collected annually in Victoria, the acreage under each class of fruit is estimated from data based on the triennial collection of the number of trees, subject to annual variations in the total area under orchards and fruit gardens.

(ii) *Area.* The table hereunder shows the total acreage for 1931-32.

ORCHARDS AND FRUIT GARDENS.—TOTAL AREA, 1931-32.

Fruit.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Apples ..	15,121	31,703	4,536	10,180	11,523	26,046	32	99,150
Apricots ..	1,885	4,010	108	3,095	669	1,407	2	11,176
Bananas ..	7,127	..	14,764	..	50	..	..	21,941
Cherries ..	3,673	1,379	5	709	(a)	58	1	5,825
Lemons ..	2,758	1,893	127	429	499	..	..	5,706
Nectarines and Peaches ..	7,166	11,940	1,763	2,084	1,004	57	4	24,018
Nuts ..	608	537	..	1,280	(a)	..	1	2,426
Oranges ..	29,067	5,796	3,969	5,025	2,964	..	..	46,821
Pineapples ..	121	..	5,789	..	..	..	..	5,910
Pears ..	4,009	10,626	251	2,035	1,041	2,077	3	20,042
Plums ..	6,106	4,623	1,285	2,860	940	625	4	16,443
Small fruits ..	29	837	126	332	79	2,078	..	3,481
Other fruits ..	2,220	3,490	2,251	1,039	761	55	1	9,817
Total ..	79,890	76,834	34,974	29,077	19,530	32,403	48	272,756

(a) Included with "Other Fruits."

(iii) *Production*—(a) *Quantities.* The production in 1931-32 is shown in the next table.

ORCHARDS AND FRUIT GARDENS.—PRODUCTION, 1931-32.

Fruit.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Australia.
Apples .. bushel	298,288	1,015,169	179,745	876,328	1,014,054	5,844,000	152	9,227,736
Apricots .. "	155,435	267,121	4,488	250,013	36,407	120,000	..	833,464
Bananas .. "	515,141	..	2,213,009	..	832	..	..	2,728,982
Cherries .. "	36,629	25,009	223	38,135	..	2,454	..	102,450
Lemons .. "	303,619	224,144	11,892	40,258	81,122	..	..	661,035
Nectarines and Peaches .. bushel	264,689	702,199	85,835	118,940	57,953	3,200	17	1,232,833
Nuts .. lb.	269,584	154,189	..	752,192	..	..	..	1,175,965
Oranges .. bushel	2,713,310	647,410	304,661	574,700	279,945	..	..	4,520,026
Pineapples .. dozen	21,861	..	1,181,654	..	..	..	..	1,203,515
Pears .. bushel	161,469	878,171	15,394	199,331	107,850	279,000	13	1,641,228
Plums .. "	78,104	137,134	53,965	142,308	59,772	108,000	10	579,293
Small Fruits .. cwt.	115	6,053	1,987	4,027	220	86,268	..	98,670



(b) *Values.* The value of production for the various classes of fruit for the year 1931-32 is given in the following table.

ORCHARDS AND FRUIT GARDENS.—VALUE OF PRODUCTION, 1931-32.

Fruit.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Australia.
	£	£	£	£	£	£	£	£
Apples .. ..	132,770	304,551	67,195	174,020	473,225	1,168,800	68	2,320,629
Apricots .. ..	94,410	73,458	3,775	63,649	23,513	30,000	..	288,805
Bananas .. ..	276,170	..	621,983	..	1,248	..	..	899,401
Cherries .. ..	43,900	21,883	256	24,311	(a)	1,230	..	91,580
Lemons .. ..	95,190	72,847	4,762	12,077	30,646	..	..	215,522
Nectarines and Peaches ..	143,540	211,034	43,478	32,753	38,615	800	9	470,229
Nuts .. ..	8,476	5,728	..	24,584	(a)	..	..	33,788
Oranges .. ..	747,100	242,779	116,787	201,505	114,988	..	..	1,423,159
Pineapples .. ..	5,100	..	254,382	..	..	..	..	259,482
Pears .. ..	65,540	208,566	8,991	48,707	41,098	55,800	5	428,707
Plums .. ..	44,370	39,589	37,541	40,955	35,398	27,000	6	223,959
Small Fruits .. ..	660	15,886	7,880	6,824	3,713	105,900	..	140,863
Other Fruits .. ..	66,974	63,654	64,498	13,951	17,440	2,000	9	228,526
<b>Total .. ..</b>	<b>1,724,200</b>	<b>1,259,975</b>	<b>1,231,528</b>	<b>642,436</b>	<b>779,884</b>	<b>1,391,530</b>	<b>97</b>	<b>7,029,650</b>

(a) Included with "Other Fruit."

3. *Principal Fruit Crops.*—(i) *Area.* The area in Australia under the principal fruit crops for the year 1913-14 and for each of the last five years is shown hereunder.

PRINCIPAL FRUIT CROPS.—AREA, BEARING AND NON-BEARING, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1913-14 ..	56,577	7,778	24,840	13,645	9,657	8,410
1927-28 ..	98,244	19,971	54,660	24,869	21,671	17,906
1928-29 ..	98,338	21,681	54,286	23,722	21,268	17,433
1929-30 ..	97,488	22,705	55,013	23,247	20,934	17,412
1930-31 ..	97,898	22,999	54,222	22,694	20,668	17,113
1931-32 ..	99,150	21,941	53,052	22,760	20,042	16,443

(ii) *Production*—(a) *Quantities.* In the next table the total production for the principal varieties of fruit grown in Australia is shown for the same periods.

PRINCIPAL FRUIT CROPS.—PRODUCTION, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1913-14 ..	5,000,178	835,868	1,638,961	930,144	951,277	621,525
1927-28 ..	11,505,289	2,260,295	3,922,773	2,225,636	1,804,604	895,105
1928-29 ..	5,519,341	2,571,616	4,642,142	1,765,818	1,516,253	794,488
1929-30 ..	9,505,312	2,382,877	4,034,717	1,998,632	2,065,048	937,110
1930-31 ..	7,678,103	2,627,317	4,688,848	1,725,039	1,549,233	959,213
1931-32 ..	9,227,736	2,728,982	5,220,772	1,191,166	1,641,228	579,293

(b) *Values.* The value of the principal fruit crops during the periods mentioned is given in the subjoined table.

PRINCIPAL FRUIT CROPS.—VALUE OF PRODUCTION, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.
	£	£	£	£	£	£
1913-14 ..	1,132,427	157,710	719,808	306,433	258,235	135,654
1927-28 ..	2,837,137	1,276,532	1,916,864	897,571	498,869	289,409
1928-29 ..	2,707,273	1,042,305	2,056,830	702,602	543,940	295,240
1929-30 ..	2,437,095	1,069,039	2,323,256	594,133	472,985	307,086
1930-31 ..	2,267,769	1,105,226	1,490,373	484,904	377,800	297,687
1931-32 ..	2,320,629	899,401	1,650,315	446,211	428,707	223,959

4. *Imports and Exports of Fruit.*—(i) *General.* A considerable export trade in both fresh and dried fruits is carried on by Australia with overseas countries. The import trade in fresh fruits declined heavily during recent years, owing to the imposition of a Customs duty of rd. per lb. on imported bananas, which had previously been the chief variety of fresh fruit imported into Australia. Under the terms of the agreement reached at Ottawa in 1932, however, 40,000 centals of bananas will be admitted annually from Fiji at the rate of duty of 2s. 6s. per cental. The imports of dried fruits at present consist mainly of dates. The export trade in fresh and dried fruits, however, has greatly expanded during recent years, the value of the shipments in 1931-32 amounting to £4,051,502. Apples constitute the bulk of the fresh fruit exported, although the exports of citrus fruits and pears are fairly considerable, and experiments are being conducted in regard to the dispatch of other fruits. Shipments of raisins and currants have increased greatly since 1914-15, and are mainly responsible for the growth in the dried fruits exports. Dried apricots also figure amongst the exports.

(ii) *Fresh Fruits.* Information with regard to the Australian oversea trade in fresh fruits is given hereunder:—

FRESH FRUITS.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1927-28 ..	4,772,200	61,606	186,625,800	1,819,796	181,853,600	1,758,190
1928-29 ..	6,350,000	69,011	82,706,700	942,960	76,356,700	873,949
1929-30 ..	7,838,000	93,110	196,000,600	1,862,603	188,162,600	1,769,493
1930-31(a)	4,015,400	26,930	168,035,900	1,588,128	164,020,500	1,561,198
1931-32(a)	3,007,000	18,115	225,466,700	2,085,597	222,459,700	2,067,482

(a) Australian currency values.

(iii) *Exports of Apples, Pears, and Citrus Fruits.* The quantity and value of apples, pears, and citrus fruits exported during each of the last five years are shown in the following table:—

APPLES, PEARS, AND CITRUS FRUITS.—EXPORTS, AUSTRALIA.

Year.	Apples.		Pears.		Citrus Fruits.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Cental.	£	Cental.	£	Cental.	£
1927-28 ..	1,736,965	1,636,000	57,831	62,742	32,388	46,645
1928-29 ..	644,183	703,037	55,006	68,290	71,932	76,023
1929-30 ..	1,737,872	1,576,275	127,897	136,353	39,271	58,481
1930-31 ..	1,329,563	1,235,583	160,684	150,069	117,000	110,414
1931-32 ..	1,879,653	1,701,569	127,708	130,744	181,450	170,573

(iv) *Dried Fruits.* The quantity and value of oversea imports and exports of dried fruits, other than raisins and currants, for the last five years are shown below; about 85 per cent. of the total imports consisted of dates obtained chiefly from Iraq.

**DRIED FRUITS(a).—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Oversea Imports.		Oversea Exports.		Net Imports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1927-28..	11,983,431	178,225	685,052	23,954	11,298,379	154,271
1928-29..	11,098,182	146,078	2,096,416	81,106	9,001,766	64,972
1929-30..	11,579,470	134,244	1,780,189	62,060	9,799,281	72,184
1930-31(b)	4,423,939	40,766	2,083,242	65,168	2,340,697	- 24,402
1931-32(b)	9,988,817	74,002	727,186	14,220	9,261,631	59,782

(a) Excluding raisins and currants referred to separately under Vineyards, § 15, 4. (b) Australian currency values.

NOTE.—The minus sign (-) signifies net exports.

(v) *Jams and Jellies.* Jams and jellies were exported in large quantities during the war years, and in 1918-19 the record shipment of 79,277,560 lbs., valued at £1,847,970, was dispatched from Australia. Since that year, however, the trade has dwindled, the value of the exports in 1931-32 amounting to only £44,630. Particulars relative to imports and exports during each of the last five years are as follow:—

**JAMS AND JELLIES.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1927-28..	438,427	18,408	2,298,225	68,949	1,859,798	50,541
1928-29..	325,422	13,133	1,947,786	58,204	1,622,364	45,071
1929-30..	300,805	10,811	1,535,720	44,398	1,234,915	33,587
1930-31(a)	6,423	471	1,445,520	40,916	1,439,097	40,445
1931-32(a)	2,099	182	1,674,862	44,630	1,672,763	44,448

(a) Australian currency values.

(vi) *Preserved Fruit.* Details concerning the quantities and values of preserved fruit imported into Australia cannot readily be obtained, owing to the fact that in the Customs returns particulars concerning fruit and vegetables are in certain cases combined. The total value of fruit and vegetables preserved or partly preserved in liquid, or pulped, imported into Australia during 1931-32 was £7,927. Overseas exports in 1931-32 were as follow:—Apricots, 5,318,062 lb., £91,836; peaches, 15,752,531 lb., £268,935; pears, 9,811,421 lb., £182,282; pineapples, 3,350,717 lb., £72,627; and other 1,116,546 lb., £25,863, or a total shipment of £641,543.

**§ 17. Minor Crops.**

1. *General.*—In addition to the crops previously dealt with, there are many others which, owing either to their nature, or to the fact that their cultivation has advanced but little beyond the experimental stage, do not occupy so prominent a position. Some of the more important of these are included under the headings—Market Gardens, Pumpkins and Melons, Nurseries, Grass Seed, Tobacco, and Millet. Cotton-growing has

received considerable attention in the tropical portions of Queensland, and the prospects of establishing this industry are hopeful. The decline in area under cultivation from 82,409 acres in 1924-25 to 50,357 acres in 1931-32 was due to poor seasons and difficulty in marketing the product. The total area in Australia during the season 1931-32 devoted to crops not dealt with in previous sections was 169,318 acres, the major portion of which consisted of cotton and market-gardens.

2. **Market Gardens.**—Under this head are included all areas on which mixed vegetables are grown. Where considerable areas are devoted to the production of one vegetable, such for instance as the potato, the onion, the melon, the tomato, etc., the figures are usually not included with market gardens, but are shown either under some specific head, or under some general head as "Other Root Crops," or "All Other Crops." The area under market gardens during each of the last five seasons is given hereunder :—

**MARKET GARDENS.—AREA.**

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Aus-tralia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28 ..	7,729	18,984	1,083	1,303	2,647	732	..	32	32,510
1928-29 ..	7,709	18,630	918	1,408	2,924	546	..	11	32,146
1929-30 ..	8,380	21,210	862	1,658	3,075	530	..	10	35,725
1930-31 ..	7,448	20,197	903	1,663	3,025	600	..	13	33,849
1931-32 ..	6,655	19,786	778	1,726	3,123	660	..	33	32,761

3. **Grass Seed.**—The area under this crop during 1931-32, exclusive of New South Wales and Western Australia, for which States complete figures as to area are not available, was 9,719 acres, of which 3,278 acres were in Victoria, 1,114 acres in Tasmania, 4,150 acres in Queensland, and 1,177 acres in South Australia. The production for 1931-32, including New South Wales, was 120,172 bushels, valued at £86,078. In addition to the areas planted above, 4,110 acres were sown to canary seed in Queensland during 1931-32, returning a yield of 29,751 bushels, valued at £19,858.

4. **Tobacco.**—Tobacco-growing some years ago promised to occupy an important place amongst the agricultural industries of Australia. Thus, as early as the season 1888-89, the area under this crop amounted to 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria, and 123 in Queensland. This promise was, however, not fulfilled, and after numerous fluctuations, in the course of which the Victorian area rose in 1895 to over 2,000 acres, and that in Queensland to over 1,000 acres, the total area declined considerably.

In all the States in which its cultivation has been tried, the soil and climate appear to be suitable for the growth of the plant, and the large imports of tobacco in its various forms are an index of the market for a properly prepared product. The net imports of tobacco into Australia during the year 1931-32 were valued at £322,322, while the net quantity of unmanufactured tobacco imported was 15,086,035 lb. valued at £574,289.

A Select Committee appointed by the Commonwealth Government to inquire into the position of the industry in Australia presented its report in July, 1930. A new agreement between the British-Australasian Tobacco Co. and the Commonwealth Government was entered into for three years from July, 1931, the company undertaking to contribute towards investigation work on a £ for £ basis with a maximum contribution of £3,000 per annum. Other manufacturing firms were invited to co-operate, and a Director of Australian Tobacco Investigation was appointed with head-quarters at Canberra. It has been proved that suitable leaf can be grown, and research is in progress with a view to improvement in quality and aroma of the product and the combating of disease. The sowing of seed free from blue mould, together with improved methods of cultivation, will, it is believed, materially reduce the loss occasioned by this parasitic disease. The extensive local demand which amounts to approximately 18 million lb. annually, coupled with the protection afforded by the tariff, has resulted in a large increase in the area planted. In addition, under an agreement between the Federal Government

and the Australian Tobacco Manufacturers, the latter undertook to purchase 7.2 million lb. of suitable local leaf during the season 1931-32 at an average price of 2s. 3d. per lb. Actually, more than 10.5 million lb. was purchased at an average price of 2s. 1½d. per lb. No agreement was made for the season 1932-33 and the production was considerably below that of 1931-32. The decline was due chiefly to climatic conditions, i.e., frosts in Victoria, floods in Northern Queensland, and dearth of rain in Central Queensland, while in some districts the plants were badly affected by disease.

The following table furnishes details of the average area, production, etc., in quinquennial periods from 1901 to 1925, and annually from 1927-28 to 1932-33:—

**TOBACCO.—AREA, PRODUCTION, ETC., AUSTRALIA.**

Period.	Area.		Production.	Value.	Number of Registered Growers.
	Acres.	lb.	£	No.	
1901-05 .. .. .	1,412	1,172,976	(a)	387	
1906-10 .. .. .	1,678	1,419,040	41,581	518	
1911-15 .. .. .	2,496	2,106,160	65,615	479	
1916-20 .. .. .	1,648	1,449,616	104,978	487	
1921-25 .. .. .	2,677	1,962,576	158,748	925	
1927-28 .. .. .	2,133	1,808,016	108,030	631	
1928-29 .. .. .	2,238	1,838,592	97,438	632	
1929-30 .. .. .	2,470	1,702,400	92,055	647	
1930-31 .. .. .	3,354	1,593,872	186,984	693	
1931-32 .. .. .	17,738	10,160,192	1,114,737	(c) 2,774	
1932-33 (b) .. .. .	..	6,000,000	..	..	

(a) Not available. (b) Subject to revision. (c) Exclusive of 274 growers registered, but who did not produce.

5. **Pumpkins and Melons.**—The total area under this crop in Australia during 1931-32 was 18,446 acres, of which 3,070 acres were in New South Wales, 996 acres in Victoria, 13,376 acres in Queensland, 338 acres in South Australia, and 666 acres in Western Australia. The production in all the States amounted to 57,767 tons.

6. **Hops.**—Hop-growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for the season 1931-32 being 1,036 acres, of which 868 acres were in Tasmania, 167 acres in Victoria, and 1 acre in South Australia. The Tasmanian area, though still small, has increased considerably during the past 30 years, the total for the season 1901-2 being only 599 acres. In Victoria, the area which in 1901-2 was 307 acres, dwindled to 71 acres in 1918-19, then rose to 312 acres in 1925-26 and dropped to 167 in 1931-32. The cultivation of hops was much more extensive in Victoria some 50 years ago than at present, the area in 1883-84 being no less than 1,758 acres. During the year 1931-32 the exports of hops exceeded the imports by 983,077 lb., valued at £40,892. The value of the production in Australia in 1931-32 amounted to £144,206.

7. **Flax.**—For many years flax was grown intermittently in the Gippsland district of Victoria, and attempts were made to introduce its cultivation into Tasmania and New South Wales, but without success. About the end of the year 1917 the shortage of flax fibre in the world had become acute, and endeavours were made by the Commonwealth Government to encourage local cultivation. The acreage in Victoria increased from 419 acres in 1917-18 to 1,611 acres in 1919-20, but cultivation had fallen in 1928-29 to 179 acres. As the result of the bounty, however, the area increased to 1,216 acres in 1930-31, but dropped to 958 acres in 1931-32.

An investigation into the linseed-flax industry was conducted by the Development Branch of the Prime Minister's Department and a report was presented in 1933. From the evidence obtained in the course of the investigation it was concluded that on account of the limited local demand and the inability to develop an export trade, any aggressive policy of expansion was to be avoided. It was found also that the growing of flax solely for seed was not likely to become an important and stable industry.

Bounty is payable on flax and linseed grown in Australia for a period of five years, commencing on the 1st March, 1930. The rates of bounty payable are 15 per cent. of the market value of the flax or linseed for the first two years, 10 per cent. for the next two years, and 7½ per cent. for the last year. The total amount paid shall not exceed £20,000 in any financial year. During the year 1932-33 the sum of £412 was paid on 37 tons of flax and 143 tons of linseed.

8. *Millet*.—Millet figures in the statistical returns of three of the States. The total area devoted thereto in 1931-32 was 2,917 acres, of which 1,731 acres were in New South Wales, 637 in Victoria, and 549 in Queensland. The particulars here given relate to millet grown for grain and fibre, the quantity for green forage being dealt with in the section relating thereto.

9. *Nurseries*.—In all the States fairly large areas are occupied as nurseries, but figures in regard to acreages under flowers, fruit trees, etc., are available only for New South Wales, Victoria, South Australia, and Western Australia. During 1931-32 the areas in those States were 764, 1,163, 150, and 158 acres respectively.

10. *Cotton*.—The cultivation of cotton was begun in Queensland in 1860, and ten years later the area cropped had increased from 14 acres to over 14,000 acres. The re-appearance of American cotton in the European market on the conclusion of the Civil War gave a severe setback to the new industry, and the area declined continuously till 1888, when only 37 acres were planted. Later on the industry was resuscitated, and manufacturing on a small scale was undertaken on two separate occasions at Ipswich, but low prices over a term of years checked development. In 1913 the Queensland Government made an advance of 1½d. per lb. on seed cotton, and ginned it on owner's account, the final return being equal to about 1¾d. per lb. The rise in price enabled the Government to offer a guarantee of 5½d. per lb. for seed cotton of good quality for the three years ended 31st July, 1923, and the area picked increased from 166 acres in 1920 to 50,186 acres in 1924. Guarantees were continued until 1926, when the Commonwealth Government granted a bounty of 1½d. per lb. on the better grades and ¾d. on the lower grades of seed cotton grown in Australia. In addition to this direct assistance to the growers, the Government subsidized the cotton-manufacturing industry by granting a graduated bounty, varying from ¾d. to 1s. per lb., on all cotton yarn manufactured in Australia which contained 50 per cent. of home-grown cotton. This bounty, however, ceased to operate after 30th June, 1932. The rates payable to growers for seed cotton vary from 1½d. per lb. for the first year for the higher grades and ¾d. per lb. for the lower grades to ½d. and ¼d. per lb. respectively for the year ending 30th September, 1936. The amount of bounty payable in any financial year is limited to £260,000.

The area under cultivation and the production in Queensland since the year 1921 are shown hereunder:—

**COTTON.—AREA AND PRODUCTION, QUEENSLAND.**

Year.						Area(a).	Yield of Unginned Cotton.
						Acres.	lb.
1921	..	..	..	..	..	1,944	940,126
1922	..	..	..	..	..	8,716	3,956,635
1923	..	..	..	..	..	40,821	12,543,770
1924	..	..	..	..	..	50,186	16,416,170
1925	..	..	..	..	..	40,062	19,537,274
1926	..	..	..	..	..	18,743	9,059,907
1927	..	..	..	..	..	14,975	7,060,756
1928	..	..	..	..	..	20,316	12,290,910
1929	..	..	..	..	..	15,003	8,024,502
1930	..	..	..	..	..	22,652	17,022,897
1931	..	..	..	..	..	22,452	15,244,644
1932	..	..	..	..	..	(b) 65,000	(b) 6,156,000

(a) Area picked.

(b) Estimated.

With the change over to the bounty system, a cotton pool was formed in Queensland under the Primary Products Pools Act, and a Cotton Board was elected to control the handling, financing, and marketing of all cotton grown in the State. The serious decline in world prices, however, affected local prices and has resulted in a smaller return to the growers. The whole of last season's crop was sold to local spinners.

11. **Coffee.**—Queensland is the only State in which coffee has been to any extent grown, but the results have not been satisfactory. The area under crop reached its highest point in the season 1901-2 with 547 acres. Thereafter the acreage fluctuated, but on the whole with a downward tendency, and in 1931-32 only 21 acres were returned with a production of 8,455 lb.

12. **Other Crops.**—Miscellaneous small crops grown in Australia include tomatoes, rhubarb, artichokes, arrowroot, chicory, and flowers.

### § 18. Bounties.

The bounties paid by the Commonwealth Government during the year ending 30th June, 1933, amounted to £557,707. For purposes of convenience particulars regarding bounties in operation in Australia on all commodities during the years 1928-29 to 1932-33 have been included in the following table :—

#### BOUNTIES.—AUSTRALIA.

Articles on which Bounty was Paid.	Rate of Bounty Payable(a).	Date of Expiry of Bounty.	Amount Paid.				
			1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
			£	£	£	£	£
<b>Iron and Steel Products Bounty Act—</b>							
*Fencing Wire ..	£2 12s. per ton (d) ..	(e) 6th Nov., 1930	121,839	114,141	39,913	..	..
*Galvanized Sheets ..	£2 12s. per ton (b) ..	(e) 27th Mar., 1931	102,650	89,561	79,429	..	..
*Wire Netting ..	£3 8s. per ton (c) ..	..	73,945	56,486	22,696	6,334	8,947
*Traction Engines ..	According to capacity, £40-£90 per tractor less 10 per cent. from 9th July, 1930, increased to 16 per cent. from 7th November, 1930, and to 40% from 11th July, 1931	..	7,109	199	1,974	1,058	894
<b>Sulphur Bounty Act—</b>							
Sulphur from Australian Pyrites and other Sulphide Ores or Concentrates	£2 5s. per ton ..	..	52,009	55,018	48,520	30,962	46,245
<b>Flax and Linseed Bounties Act 1930</b>	Rates vary according to year	28th Feb., 1935	..	..	..	1,561	412
<b>Wine Export Bounty Act—</b>							
Fortified Wine, containing not less than 34 per centum of proof spirit, exported from the Commonwealth from 1st September, 1924, to 28th February, 1935	4s. per gallon to 31st August, 1927 1s. 9d. per gallon from 1st September, 1927, to 8th March, 1928 1s. per gallon from 9th March, 1928 1s. 9d. per gallon from 13th March, 1930	28th Feb., 1935	76,455	83,210	165,009	201,268	178,491

(a) All bounties are subject to 20 per cent. reduction from 20th July, 1931. (b) Amount of Bounty raised to £3 12s. per ton on 1st January, 1928, to £4 10s. per ton from 1st January, 1930, and reduced to £3 10s. on 21st June, 1930, and to £3 3s. on 10th July, 1930. Bounty ceased on 27th March, 1931, owing to increase in Customs duty. (c) Amount of Bounty reduced to £2 14s. per ton on 10th July, 1930, and to £2 5s. 6d. per ton on 7th November, 1930, and to 12s. per ton from 11th July, 1931. (d) Amount of Bounty reduced to £2 6s. on 10th July, 1930. Bounty ceased on 6th November, 1930, owing to increase in Customs duty. (e) Date Bounty ceased.

BOUNTIES.—AUSTRALIA—*continued.*

Articles on which Bounty was Paid.	Rate of Bounty Payable. (c)	Date of Expiry of Bounty.	Amount Paid:				
			1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
			£	£	£	£	£
<b>Ootton Bounty Act—</b> Seed Cotton grown in Australia and delivered and graded as prescribed	Varies on Higher Grades from 1½d. per lb. up to 1932, to ¼d. per lb. in 1936	30th Sept., 1936	64,930	70,307	100,848	64,206	56,182
	Varies on Lower Grades from ¾d. per lb. up to 1932, to ¼d. per lb. in 1936						
Cotton Yarn manufactured in Australia	Varies according to count and year	(e) 30th June, 1932	33,638	48,660	57,085	94,395	36,985
<b>Papua and New Guinea Bounties Act—</b> Cocoa and Coffee Beans (a) produced in these Territories imported into the Commonwealth for home consumption	1½d. per lb.	31st Dec., 1936	1,641	1,059	(b) 946	(b) 830	(b) 632
Sisal Hemp	£6 per ton	" "	"	"	40	"	"
<b>Gold Bounty Act—</b> Gold produced in Australia as prescribed	Varies according to production (d)	(e) 30th Sept., 1932	"	"	"	80,904	96,112
<b>Wheat Bounty Act—</b> Wheat harvested in Australia during the period 1st October, 1931, and 31st March, 1932, and sold or delivered for sale between 1st October, 1931, and 31st October, 1932, as prescribed	4½d. per bushel	31st Oct., 1932	"	"	"	3,296,464	132,807
<b>Total .. .. .</b>	<b>.. .. .</b>	<b>.. .. .</b>	<b>534,216</b>	<b>518,641</b>	<b>516,460</b>	<b>3,777,982</b>	<b>557,707</b>

(a) Other goods are scheduled in the Act, see Note (b) (b) Including £1 9s. 3d., being amount of bounty paid on 234 lb. of spices in 1930-31, 12s. 7d. on 126 lb. in 1931-32 and 17s. 2d. on 172 lb. in 1932-33. (c) All Bounties are subject to 20 per cent. reduction from 20th July, 1931. (d) Rate of Bounty on gold produced for six months ending June, 1931, was 2.623s. and for six months ending December, 1931, 3.269s. per fine ounce; for the nine months ending September, 1932, the rate was 4.056s. per fine ounce. (e) Date Bounty ceased.

§ 19. Fertilizers.

1. **General.**—In the early days of settlement in Australia, scientific cultivation was practically neglected. Farmers were neither under the necessity nor were they aware of the value of supplying the proper constituents to the soil for each class of crop. The widely divergent character of the soils, their degeneration by repeated cropping, the limitations of climatic conditions, and the difficulties of following any desired order of rotation of crops, all rendered it essential to give attention to artificial manuring. The introduction of the modern seed-drill acting also as a fertilizer-distributor has greatly facilitated the use of artificial manures, and much land formerly regarded as useless for cultivation has now been made productive.

2. **Fertilizers Acts.**—In order to protect the interests of users of artificial manures, legislation has been passed in each of the States regulating the sale and prohibiting the adulteration of fertilizers. A list of these Acts and their main features will be found in Year Book No. 12 (page 378).



3. Imports.—The Australian production of prepared fertilizers is sufficient for local requirements. Imports consist chiefly of rock phosphate, which is used in making superphosphate, a valuable fertilizer for cereals. During 1931-32 the value of rock phosphate imported represented more than 96 per cent. of the total imports of fertilizers. Nauru and Gilbert and Ellice Islands Colony supplied almost the whole of the shipments. Sodium nitrate is obtained chiefly from Chile.

The imports of manures during the last five years are given in the following table. Although considerable quantities of manufactured superphosphate were imported up to the year 1914-15, imports during recent years were very small.

\*FERTILIZERS.—IMPORTS, AUSTRALIA.

Fertilizer.	1927-28.	1928-29.	1929-30.	1930-31. (b)	1931-32. (b)
Bonedust .. .. cwt.	(a)	(a)	(a)	(a)	(a)
" .. .. £	(a)	(a)	(a)	(a)	(a)
Guano .. .. cwt.	500	52,018	1,000	..	..
" .. .. £	242	6,438	462	..	..
Superphosphate .. cwt.	1,400	2,560	4,572	511	..
" .. .. £	937	1,834	3,331	398	..
Rock phosphate .. cwt.	9,220,120	12,349,710	10,579,094	8,614,718	5,948,490
" .. .. £	915,840	1,291,583	1,126,531	642,006	463,496
Soda nitrate .. cwt.	175,074	152,747	256,457	27,434	13,041
" .. .. £	91,885	75,888	123,635	14,782	8,052
Other .. .. cwt.	237,354	308,425	402,188	341,023	203,892
" .. .. £	103,634	112,232	205,574	166,491	103,186
Total .. .. cwt.	9,634,448	12,865,460	11,243,311	8,983,686	6,165,423
" .. .. £	1,112,538	1,487,975	1,459,533	823,677	574,734

(a) Now included with other fertilizers. (b) Australian currency values.

4. Exports.—The subjoined table shows the exports of manures for the years 1927-28 to 1931-32. Practically all these fertilizers are manufactured locally, the quantities exported being consigned chiefly to New Zealand, Japan, Java, and the Pacific Islands.

FERTILIZERS.—EXPORTS, AUSTRALIA.

Fertilizer.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Bonedust .. .. cwt.	74	39	6,426	6	1,140
" .. .. £	46	27	2,756	4	162
Superphosphates .. cwt.	33	316	168	144	66
" .. .. £	14	83	54	52	28
Rock phosphates .. cwt.	..	..	4	..	..
" .. .. £	..	..	1	..	..
Soda nitrate .. cwt.	7	6	34	7	88
" .. .. £	7	9	27	14	69
Ammonia sulphate .. cwt.	71,911	18,610	972	3,882	1,715
" .. .. £	42,229	11,255	440	1,470	546
Other .. .. cwt.	29,464	66,429	31,474	12,935	41,399
" .. .. £	12,861	30,097	13,766	4,186	11,453
Total .. .. cwt.	101,489	85,400	39,078	16,974	44,408
" .. .. £	55,157	41,471	17,044	5,726	12,258

5. Quantities Locally Used.—Information regarding quantities, etc., of manures used in each State during the year 1931-32 is given in the table hereunder :—

FERTILIZERS USED IN EACH STATE, 1931-32.

State or Territory.	Total Area of Crops.	Area Manured.		Manures Used.	
		Aggregate.	Percentage on Total Area of Crops.	Natural (Stable Yard, etc.).	Artificial.
	Acres.	Acres.	%	Loads.	Tons.
New South Wales ..	5,108,554	2,267,004	44.38	153,777	69,115
Victoria ..	5,407,109	(a) 3,927,208	72.63	98,375	(a) 163,234
Queensland ..	1,216,402	139,731	11.49	78,989	31,255
South Australia ..	5,219,870	4,218,750	80.82	37,805	141,653
Western Australia ..	3,961,459	(a) 4,203,352	(b) 98.64	54,498	(a) 178,509
Tasmania ..	247,353	192,734	77.92	14,949	18,831
Northern Territory ..	1,030	..	..	..	..
Fed. Cap. Territory ..	5,123	2,697	52.64	36	92
Total ..	21,166,900	14,951,476	70.64	438,429	602,689

(a) Includes area under sown grasses and manure used.

(b) 1923 figure.

Similar particulars in respect of Australia as a whole during the past five years are as shown below :—

FERTILIZERS USED IN AUSTRALIA.

Year.	Total Area of Crops.	Area Manured.		Manure Used.		Average per Acre of Total Area (Artificial).
		Aggregate.	Percentage on Total Area of Crops.	Natural (Stable Yard, etc.).	Artificial.	
	Acres.	Acres.	%	Loads.	Tons.	lb.
1927-28 ..	19,219,393	16,607,826	86.41	516,241	725,782	85
1928-29 ..	21,189,557	18,701,389	88.26	450,474	813,656	86
1929-30 ..	21,929,721	19,925,988	90.86	405,812	852,925	87
1930-31 ..	25,163,816	22,150,034	88.02	466,468	885,827	79
1931-32 ..	21,166,900	14,951,476	70.64	438,429	602,689	64

The quantity of chemical fertilizers used per acre of all crops increased from 75 lb., the average for the period 1910-13, to 87 lb. in 1929-30, followed by a decrease in 1930-31 to 79 lb. and a further drop to 64 lb. in 1931-32. The decline was principally due to the low prices of farm produce. In order to meet the altered conditions farmers sowed their crops with a lighter dressing of manure in an effort to reduce the cost of production. Seasonal conditions were favourable and prevented any serious decrease in the quantities produced. These circumstances caused the percentage of the area manured on the total area cultivated to decline from 86.41 to 70.64 during the past five years, while the use of artificial manures has decreased by 123,000 tons during the same period. As a measure of relief to primary producers other than wheat growers the Commonwealth Government provided for the States' Governments a sum of £250,000, which was distributed on the basis of 15s. od. per ton of artificial manure used during the year ended 30th November, 1933.

6. **Local Production.**—Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of artificial manures in Australia for the year 1931-32 was 97, made up as follows:—New South Wales, 24; Victoria, 34; Queensland, 6; South Australia, 16; Western Australia, 8; and Tasmania, 9. The production of superphosphates in Australia during 1931-32 amounted to 560,732 tons, the largest producing States being Victoria and Western Australia.

## § 20. Ensilage.

1. **Government Assistance in Production.**—The various State Governments devote a considerable amount of attention to the education of the farming community in regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the silage.

2. **Quantity Made.**—Information regarding the number of holdings on which ensilage was made, and the quantity made during the seasons 1927-28 to 1931-32, is given in the following table:—

### ENSILAGE MADE.

State or Territory.	1927-28.		1928-29.		1929-30.		1930-31.		1931-32.	
	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.
	(a)		(a)		(a)		(a)		(a)	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
New South Wales ..	473	50,464	350	27,177	338	28,155	669	60,172	628	54,885
Victoria ..	75	6,037	89	7,775	74	4,783	99	6,373	96	5,792
Queensland ..	76	5,420	72	4,037	43	2,933	60	4,880	79	5,319
South Australia ..	17	2,415	12	2,808	22	1,319	21	3,656	92	5,640
Western Australia ..	72	5,147	93	7,022	105	7,966	209	10,509	396	16,999
Tasmania ..	12	526	5	115	6	75	14	840	23	687
Northern Territory ..	..	..	..	..	..	..	..	..	..	..
Total ..	725	70,009	621	48,934	588	45,231	1,072	86,430	1,314	89,822

(a) No. of holdings on which ensilage was made.

The drought of 1902-3 drew increased attention to the value of stocks of ensilage, and during the four seasons ended 1909-10 there was an increase both in the number of holdings on which ensilage was made and in the quantity produced. The following five seasons, however, showed a falling off, but the reduction was due to the fact that stocks had not been drawn upon to any great extent during the previous seasons. The accumulated stocks proved of great value during the 1914 drought, though far below what would have been the case if more attention had been paid to production during the previous years, when there was a surplus of green forage. The quantities made since that date have fluctuated considerably, the output in 1931-32 amounting to 89,822 tons.

## § 21. Agricultural Colleges and Experimental Farms.

1. **General.**—In most of the States agricultural colleges and experimental farms have been established with a view to the promotion of more scientific methods in agriculture, stock-breeding and dairying. In the colleges, and on some of the farms, provision is made for the accommodation of pupils to whom both practical and theoretical instruction is given by experts in various branches of agriculture. Analyses of soils and fertilizers are made, manures are tested, and elementary veterinary science, etc., are taught, while general experimental work is carried on with cereal and other crops, not merely for the purpose of showing that it is practicable to produce certain crops in a given place, but

to show also how it is possible to make farming pay in the locality. Opportunities are afforded for practice in general agricultural work, and instruction is given in the conservation of fodder ; in cheese and butter making ; in the management, breeding, and preparation for the market of live stock ; in the eradication of pests and weeds ; and in carpentering, blacksmithing, and other trades.

Travelling expert lecturers visit the various agricultural and dairying centres, and there is a wide distribution of periodical agricultural gazettes and bulletins.

2. **Agricultural Colleges and Experimental Farms.**—In previous issues of this volume detailed information was given regarding agricultural colleges, experimental farms, and agricultural education generally. See Year Book No. 11, pages 393-5, and a summary in respect of the year 1931-32 will be found in the Production Bulletin No. 26 issued by this Bureau.

3. **Agricultural and Stock Departments.**—A synopsis of the activities and operations of the Agricultural and Stock Departments of the several States on 30th June, 1920, will be found in Year Book No. 14, pages 1180 to 1191.

## CHAPTER XIX.

## FARMYARD, DAIRY, AND BEE PRODUCTS.

## § 1. Introductory.

1. **General.**—The introduction of cattle into Australia, and the early history of the dairying industry are referred to in some detail in earlier issues of this work (see Official Year Book No. 6, p. 430). It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossings of strains has resulted in an increased and improved milk supply. In Australia, dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter, and rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the wider application of scientific methods in the treatment of animals and pasturages and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. An investigation into the problems of the dairying industry was decided upon by the Commonwealth Government in 1929, the task of making the necessary inquiries being referred to the Development and Migration Commission and the Council for Scientific and Industrial Research for joint action. The first report, which relates to farm production, was completed by the Federal Dairy Investigation Committee in 1930. It was proposed to issue additional reports, but the investigation was discontinued. Investigation by the British Medical Research Council into the vitamin content of Australian, New Zealand and British butter respectively showed high and uniform results for the Australian product, the figures being on a par with those for the United Kingdom and other European countries. It was demonstrated also that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the loss during cold storage even for as long as two years is insignificant.

2. **Official Supervision of Industry.**—Dairy experts, under the supervision of the various State Agricultural Departments, give instruction in approved methods of production, and inspect animals, buildings and marketable produce. A high standard of cleanliness, both of personnel and *matériel*, prevails. Financial assistance of a temporary nature is also given.

The export trade is regulated by the terms of the Commonwealth Commerce Act 1905 and regulations thereunder. The provisions of this Act are set out in detail in Official Year Book No. 6, pp. 431-2. It will be sufficient to state here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are certificated by the inspector.

3. **Stabilization Scheme.**—A scheme for the stabilization of prices of butter and cheese advocated by the Hon. Thomas Paterson, M.H.R., was introduced in January, 1926. The working of the scheme, which is purely voluntary, is controlled by a body known as the Australian Stabilization Committee. Provision is made for levies on all butter and cheese produced in Australia sufficient to pay a bounty of not less than 3d. per lb. on butter exported and of 1½d. per lb. on cheese exported. Up to the present, however, cheese has not been included in the scheme. The rate of levy charged and the amount of bounty payable on butter exported since 1st January, 1926, are shown in the following statement:—

Period.	Rate of Levy on Butter produced.	Rate of Bounty paid on Butter Exported.
	per lb. d.	per lb. d.
1st January, 1926 to 11th December, 1927 ..	1½	3
12th December, 1927 to 31st December, 1927 ..	1½	4
1st January, 1928 to 31st August, 1928 ..	1½	3
1st September, 1928 to 31st December, 1928 ..	1½	4
1st January, 1929 to 31st December, 1930 ..	1¾	4½
1st January, 1931 to 31st March, 1931 ..	1¾	3½
1st April, 1931 to 11th April, 1931 ..	1¾	3
12th April, 1931 to 2nd April, 1932 ..	1¾	2½
2nd April, 1932 to latest available date (Nov., 1933)	1¾	3

The bounty results in an automatic increase in the local price up to the amount of bounty paid, while the average return to the producer on all butter produced is increased by approximately the amount of the bounty less the rate of levy charged.

On an average annual production of 290,000,000 lb., of which it is estimated that 190,000,000 lb. constitute the requirements for local consumption, leaving a balance of 100,000,000 lb. available for export—the extent to which the producer would benefit from an export bounty of 3d. per lb. is shown hereunder—

Increased value of 3d. per lb. on total production of 290,000,000 lb. ..	£3,625,000
Less amount required to provide export bounty of 3d. per lb. on 100,000,000 lb. exported .. ..	£1,250,000
Estimated net gain to producer .. ..	£2,375,000

It should be noted that the above figures do not take into consideration any consequent increases in the price of milk or other milk products, nor any decrease in consumption resulting therefrom.

Allowance must be made also for the fact that the plan, though voluntary, depends upon adequate tariff protection of the "home price". The duty on imported butter was raised to 6d. in 1927 to safeguard the scheme against imports from New Zealand.

4. **Mixed Farming.**—Dairying is not now, as formerly, wholly confined to agriculturists, since many graziers in a large way of business have lately given it their attention. In non-coastal regions it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. Local wants are thus met, and in many places remote from the metropolis well-equipped factories have been established.

5. **Factory System.**—Cream separation and butter-making are often carried on together under the co-operative system. The creation of large central butter factories, supplied by numerous separating establishments or "creameries," has resulted in a considerable reduction in the cost of manufacture, since improved appliances such as refrigerators, etc., may be profitably worked at the larger establishments. The product is also of a more uniform quality and the number of farmers who prefer to convert the cream rather than send it to the factory is rapidly diminishing. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires less than 2½ gallons.

6. **Butter and Cheese Factories.**—The factories in Australia for the manufacture of butter, cheese, and condensed milk numbered 513 in 1931-32, as compared with 579 in 1926-27. These were distributed in the various States as follows:—New South Wales, 136; Victoria, 169; Queensland, 116; South Australia, 42; Western Australia, 14; and Tasmania, 36. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXII.

7. *Ottawa Conference.*—The agreement reached at the Imperial Economic Conference at Ottawa in August, 1932, should materially assist the dairying, bee, and poultry industry. Under the terms of this agreement free entry into the United Kingdom of eggs, poultry, butter, cheese and other milk products of Australian origin will be continued for three years from 15th November, 1932, while similar goods imported from foreign countries are to be subjected to customs duties. The rate to be imposed on the undermentioned items is as follows:—butter, 15s. per cwt.; cheese, 15 per cent. ad valorem; eggs in shell, 1s. to 1s. 9d. per great hundred; honey, 7s. per cwt.; milk powder, 5s. per cwt., and condensed milk, 5s. and 6s. per cwt. The right to review the basis of preference of these items at the end of this period is reserved by the Government of the United Kingdom. The quantitative regulation of supplies of bacon and ham coming on to the market in Great Britain is to be arranged after the receipt of the report of the Commission investigating the reorganization of the pig industry in the United Kingdom. The granting of new or additional preferences on some of these items by Crown Colonies and Protectorates should further benefit these industries. Details of imports into the United Kingdom are given in § 9 hereafter.

## § 2. Dairy Cattle and Dairy Products.

1. *Dairy Herds.*—The dairy herds of Australia were severely depleted during the drought of 1914–15, when the number was reduced to 1,684,393. Following that year substantial increases have taken place, and the number recorded in 1931 represents a gain of more than 538,000 in the past decade. In New South Wales, Victoria, South Australia, and Tasmania the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory, and Western Australia there is a greatly preponderating number of other cattle, the main object in these areas being the production of beef. In Southern Queensland, however, dairying has developed remarkably during the past decennium, and the progress attained in that area and in New South Wales has been largely responsible for the Australian increase previously mentioned. The returns for 1931 include heifers intended for milking and being within three months of calving. Details were not collected for Victoria or Tasmania, but the total of such heifers in the other States amounted to 103,449.

### CATTLE AND DAIRY CATTLE.—NUMBER.

State.		1927.	1928.	1929.	1930.	1931.
New South Wales	All Cattle ..	2,848,654	2,784,615	2,686,132	2,840,473	2,993,586
	Dairy Cows ..	894,440	907,774	913,555	964,739	1,020,947
Victoria	All Cattle ..	1,327,077	1,304,426	1,335,242	1,429,920	1,637,530
	Dairy Cows ..	626,139	615,092	619,416	669,132	775,538
Queensland	All Cattle ..	5,225,804	5,128,341	5,208,588	5,463,724	5,550,399
	Dairy Cows ..	645,316	670,805	680,577	724,323	775,301
South Australia	All Cattle ..	316,314	263,016	204,516	218,985	265,324
	Dairy Cows ..	117,580	108,969	104,255	109,672	127,756
Western Australia	All Cattle ..	846,735	837,527	836,646	812,844	826,532
	Dairy Cows ..	70,880	69,047	74,223	85,725	99,287
Tasmania	All Cattle ..	210,894	208,812	214,643	230,254	232,444
	Dairy Cows ..	66,902	94,268	72,235	76,825	81,800
Northern Territory	All Cattle ..	835,390	768,751	711,607	720,476	749,745
	Dairy Cows ..	(a)	(a)	(a)	(a)	(a)
Federal Capital Territory	All Cattle ..	6,188	5,269	4,760	4,240	5,395
	Dairy Cows ..	1,417	704	679	788	643
Australia..	All Cattle ..	11,617,056	11,300,757	11,202,134	11,720,916	12,260,955
	Dairy Cows ..	2,422,674	2,466,659	2,464,940	2,631,204	2,881,272

(a) Not available.

2. *Milk.*—The annual quantity of milk produced per dairy cow varies greatly with breed, locality and season, reaching as high as 1,000 gallons, but averaging for the whole of Australia for all dairy cows and for all seasons prior to 1916 considerably under 300 gallons per annum. In recent years not only has there been an improvement in the quality of the cattle, but the application of scientific methods is being continually extended, and the 300 gallon average has been exceeded in each of the last six seasons,

the yield of 392 gallons in 1931 constituting a record. The best yields over a series of years were in Victoria, Tasmania, South Australia and New South Wales, while Queensland in normal years shows a higher average than Western Australia. In the following table the annual average yields per cow for the last five years are based on the number of dairy cows which were in milk during any part of the year. The average given is, naturally, far below that for cows which were yielding during the greater part of the year.

MILK PRODUCTION.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia. (b)
1927-28—								
Dairy Cows (a) .. No.	837,617	649,614	565,913	114,459	65,701	67,180	585	2,301,069
Production 1,000 gals.	283,046	260,648	180,679	37,947	17,159	22,556	220	802,255
Aver. per cow .. gal.	338	401	319	332	261	336	376	349
1928-29—								
Dairy Cows (a) .. No.	849,769	620,616	606,637	105,800	65,982	67,491	567	2,316,862
Production 1,000 gals.	277,378	279,032	186,307	35,701	18,252	24,444	245	821,359
Aver. per cow .. gal.	326	450	307	337	277	362	432	354
1929-30—								
Dairy Cows (a) .. No.	858,194	617,254	643,272	98,969	67,592	70,157	550	2,355,988
Production 1,000 gals.	283,947	274,172	188,520	34,774	21,366	25,466	276	828,521
Aver. per cow .. gal.	331	444	293	351	316	363	502	352
1930-31—								
Dairy Cows (a) .. No.	880,079	644,274	671,803	98,502	75,465	74,530	614	2,445,267
Production 1,000 gals.	298,111	313,815	224,085	39,035	24,329	31,165	238	930,778
Aver. per cow .. gal.	339	487	334	396	322	418	388	381
1931-32—								
Dairy Cows (a) .. No.	935,438	722,335	718,677	107,075	87,275	79,312	614	2,650,726
Production 1,000 gals.	332,293	362,868	231,688	50,001	29,890	31,306	280	1,038,326
Aver. per cow .. gal.	355	502	322	466	342	395	456	392

(a) Mean for the year. (b) Exclusive of Northern Territory.

3. **Butter and Cheese.**—Although the quantity of dairy production is largely affected by the nature of the season, a large increase in the output of butter has taken place in recent years. The average annual production rose from 205,000,000 lb. for the quinquennium 1917-1921 to 322,000,000 lb. for the latest five years. The largest production of butter in Australia was recorded in 1931-32, when, as a result of a specially favourable season, 390,650,000 lb. were manufactured. The previous highest figure was in 1930-31 when the total amounted to 350,000,000 lb. It is anticipated that this record will be broken by the return for the season 1932-33. Preliminary data indicate a total production for the season of 420,000,000 lb.

The manufacture of cheese is also largely dependent upon seasonal conditions. The production in 1931-32 was 31,422,973 lb. as compared with 33,099,781 lb., the record quantity produced during the previous year.

The development in dairy production since 1896, and in the exports of butter from 1901 onwards are shown in the graphs on page 542. Particulars for the past five years are as follow :—

BUTTER AND CHEESE PRODUCTION.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>BUTTER.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. ..	100,794,838	95,337,240	104,175,340	113,237,295	123,252,722
Victoria .. ..	84,270,812	93,728,516	90,639,652	110,006,619	132,131,812
Queensland .. ..	72,039,151	77,044,859	78,796,483	95,719,316	98,013,043
South Australia .. ..	12,136,638	11,315,714	10,789,706	12,961,231	17,663,029
Western Australia .. ..	4,265,258	5,051,088	6,179,489	8,666,399	10,109,795
Tasmania .. ..	6,514,642	7,395,689	8,488,932	9,802,261	9,462,866
Federal Capital Territory ..	16,065	10,094	10,943	11,983	20,803
<b>Australia .. ..</b>	<b>280,037,404</b>	<b>289,883,200</b>	<b>299,080,545</b>	<b>350,405,104</b>	<b>390,654,070</b>



BUTTER AND CHEESE PRODUCTION—*continued.*

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>CHEESE.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. .. .	7,284,622	6,339,052	6,345,785	6,516,065	6,590,357
Victoria .. .. .	5,621,945	5,505,932	6,953,949	8,064,463	7,723,328
Queensland .. .. .	14,128,420	14,391,910	12,380,882	13,648,038	11,021,963
South Australia .. .. .	3,465,456	2,975,095	3,536,943	3,901,159	5,096,731
Western Australia .. .. .	5,088	7,526	998	528	909
Tasmania .. .. .	1,029,344	997,586	954,463	969,528	989,685
<b>Australia .. .. .</b>	<b>31,534,875</b>	<b>30,217,101</b>	<b>30,173,020</b>	<b>33,099,781</b>	<b>31,422,973</b>

4. **Condensed or Concentrated Milk.**—The manufacture of this product is of comparatively recent growth, the quantity of milk treated in 1901 being negligible, but production increased annually until in 1911 the output nearly doubled that of the previous year. Thenceforward rapid progress was made, the greatest development taking place in Victoria. The output of this State amounted in 1927-28 to 53,876,662 lb.; in 1928-29 to 53,948,559 lb.; in 1929-30 to 51,581,802 lb.; in 1930-31 to 45,665,474 lb., and in 1931-32 to 41,409,540 lb. Imports of milk into Australia consist almost entirely of malted or otherwise medicated milk. No condensed or concentrated milk is made in Tasmania. Information regarding production in the remaining States is not available for publication, but the volume is not very large.

5. **Oversea Trade in Butter, Cheese, and Milk.**—The following tables give the imports, exports, and net exports of butter, cheese, and milk. In each of the five years dealt with the exports of butter, cheese, and condensed milk exceeded the imports.

## BUTTER, CHEESE, AND MILK, IMPORTS AND EXPORTS.—AUSTRALIA.

Products.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>IMPORTS.</b>					
Butter .. .. .	lb. 6,975,370	964	3,947	3,016	1,525
" .. .. .	£ 549,548	89	287	(a) 201	(a) 110
Cheese .. .. .	lb. 2,084,486	515,257	458,481	30,356	13,695
" .. .. .	£ 116,200	45,817	34,462	(a) 2,729	(a) 1,482
Milk—concentrated and preserved	lb. 931,344	774,115	1,177,593	524,865	393,953
" .. .. .	£ 36,837	33,422	36,219	(a) 22,016	(a) 11,162
<b>EXPORTS.</b>					
Butter .. .. .	lb. 99,164,946	102,442,843	107,663,264	163,180,695	201,639,404
" .. .. .	£ 6,905,933	7,545,430	7,001,556	8,120,165	9,812,827
Cheese .. .. .	lb. 6,933,857	8,335,078	3,094,092	8,595,019	7,267,727
" .. .. .	£ 260,879	330,165	125,102	244,107	212,871
Milk—concentrated and preserved	lb. 20,640,224	25,402,575	16,498,819	12,351,714	15,996,464
" .. .. .	£ 1,188,903	1,424,854	997,756	610,705	642,036
<b>NET EXPORTS.(b)</b>					
Butter .. .. .	lb. 92,189,576	102,441,879	107,659,317	163,177,679	201,637,879
" .. .. .	£ 6,356,385	7,545,341	7,001,269	8,119,964	9,812,717
Cheese .. .. .	lb. 4,849,371	7,819,821	2,635,611	8,564,663	7,254,032
" .. .. .	£ 144,679	284,348	90,640	241,378	211,389
Milk—concentrated and preserved	lb. 19,708,880	24,628,460	15,321,226	11,826,849	15,602,511
" .. .. .	£ 1,152,066	1,391,432	961,537	588,689	630,874

(a) Australian currency values.

(b) Excess of exports over imports.

6. **Local Consumption of Butter and Cheese.**—The local production of butter and cheese, with the subtraction therefrom or the addition thereto of the net export or import for the corresponding period, represents approximately the quantity available for consumption in Australia. The figures for the past five years are as follows:—

**BUTTER AND CHEESE.—LOCAL CONSUMPTION.**

Products.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	lb.	lb.	lb.	lb.	lb.
Butter .. Total ..	187,847,828	187,441,321	191,421,228	187,227,425	189,016,191
.. .. Per head of population ..	30.13	29.58	29.84	28.91	28.96
Cheese .. Total ..	26,685,504	22,397,280	27,537,409	24,535,118	24,168,941
.. .. Per head of population ..	4.28	3.53	4.29	3.79	3.70

Consumption in 1931-32 averaged 29 lb. of butter and 3½ lb. of cheese per head of population. The consumption of butter in the United Kingdom, Canada, and New Zealand is given at 21.8 lb., 30.4 lb., and 34.7 lb. per head per annum respectively, while that of cheese amounted to 9.5 lb., 3.6 lb., and 5.6 lb. respectively.

**§ 3. Pigs and Pig Products.**

1. **Pigs.**—The number of pigs in Australia has varied considerably during the last 30 years. In 1904 the total amounted to 1,062,703, but in 1919 it had dwindled to 695,968. During the last five years the increase has been fairly steady, but the number in 1931, i.e., 1,167,845, is lower than in 1917 when it amounted to 1,169,365. The distribution of pigs among the States and Territories in 1931 was—New South Wales, 385,846; Victoria, 286,780; Queensland, 222,686; South Australia, 109,780; Western Australia, 120,521; Tasmania, 41,459; Northern Territory, 665; Federal Capital Territory, 108; total, 1,167,845. The figures for New South Wales and the Federal Capital Territory represent the numbers as on the 31st March, 1932.

2. **Bacon and Ham.**—The highest production of bacon and ham was reached in 1927-8 with an output of 75,000,000 lb. During the last three years the average was about 70,700,000 lb. The production in the several States in 1931-32 was as follows:—New South Wales, 20,468,259 lb.; Victoria, 18,287,404 lb.; Queensland, 20,008,227 lb.; South Australia, 7,034,439 lb.; Western Australia (including a quantity made from imported green bacon), 3,473,433 lb.; Tasmania, 1,849,678 lb.; Federal Capital Territory, 300 lb.; total, 71,121,740 lb. Practically the whole of the bacon and ham produced is consumed locally. On the experience of the last five years the local consumption was about 71,000,000 lb., or 11.1 lb. per unit of population. The bacon and ham exported from Australia is consigned chiefly to the Pacific Islands and the East.

3. **Pork Consumption.**—Data available regarding the consumption of pork indicate an average for Australia in 1931-32 of 6.68 lb. per head of population, as compared with 13.72 lb. per head in New Zealand, 92 lb. in Canada and 70 lb. in the United States of America.

4. **Oversea Trade in Pig Products.**—The oversea trade in pigs and pig products for the last five years is shown in the following table:—

**PIG PRODUCTS.—OVERSEA TRADE, AUSTRALIA.**

Particulars.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
PIGS.						
Imports	No.	..	85	59	7	4
..	£	..	707	2,603 (a)	252	(a) 159
Exports	No.	328	201	325	280	274
..	£	1,294	934	1,365	1,186	1,074
Net Exports	No.	328	116	266	273	270
..	£	1,294	227	-1,238	934	915

PIG PRODUCTS.—OVERSEA TRADE, AUSTRALIA—*continued.*

Particulars.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>BACON AND HAM.</b>						
Imports	.. lb.	356,288	406,335	209,021	25,245	1,191
"	.. £	21,108	23,465	12,325	(a) 1,595	(a) 97
Exports	.. lb.	1,533,967	1,464,313	1,481,897	2,100,290	1,429,367
"	.. £	129,073	122,929	116,709	115,278	87,213
Net Exports	.. lb.	1,177,679	1,057,978	1,272,876	2,075,045	1,428,176
"	.. £	107,965	99,464	104,384	113,683	87,116
<b>LARD.</b>						
Imports	.. lb.	712,307	420,609	206,037	101,391	15,244
"	.. £	20,092	11,188	5,157	(a) 2,972	(a) 492
Exports	.. lb.	1,380,960	1,609,914	969,512	1,043,930	2,924,492
"	.. £	38,209	41,741	26,664	26,189	43,498
Net Exports	.. lb.	668,653	1,189,305	763,475	942,539	2,909,248
"	.. £	18,117	30,553	21,507	23,217	43,006
<b>FROZEN PORK.</b>						
Imports	.. lb.	2,112,595	2,288,385	413,949	46,695	706
"	.. £	67,876	76,141	13,486	(a) 1,684	(a) 32
Exports	.. lb.	159,494	199,336	934,149	8,629,901	7,383,355
"	.. £	6,183	7,856	32,735	235,999	173,373
Net Exports	.. lb.	-1,953,101	-2,089,049	520,200	8,583,206	7,382,649
"	.. £	-61,693	-68,285	19,249	234,315	173,341

NOTE.—The minus sign (—) signifies net imports.

(a) Australian currency values.

The output of pig products in Australia is usually sufficient to meet local requirements and provide a small surplus for export. Exports of frozen pork showed a remarkable increase in 1930-31 and 1931-32, when more than 8.6 million lb. and 7.4 million lb. respectively were sent overseas, as compared with an average of 373,000 lb. for the five preceding years. The chief pig product consumed in the United Kingdom is bacon and ham, the imports of which during 1931 amounted to 12 million cwt., valued at £33,000,000, obtained chiefly from Denmark. With the regulation of supplies from foreign countries to the United Kingdom under the terms of the agreement at the Ottawa Conference in 1932, Australia should gain a larger share in this important market.

## § 4. Total Dairy Production.

The total dairy production of Australia in 1931-32 is shown below:—

## PRINCIPAL DAIRY PRODUCTION.—AUSTRALIA, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
<b>MILK.</b>								
Used for—	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
Butter	265,389,802	294,157,259	207,670,685	37,222,016	221,205,573	23,920,966	73,907	849,640,208
Cheese		7,491,173		4,753,044	..	1,001,291	..	
Condensing and concentrating	9,056,504	10,706,052	11,024,241	..	..	..	..	44,032,305
Other purposes	57,846,694	50,513,151	12,992,982	8,026,234	8,684,206	6,383,743	206,682	144,653,692
Total	332,293,000	362,867,635	231,687,908	50,001,294	29,889,779	31,306,000	280,589	1,038,326,205

PRINCIPAL DAIRY PRODUCTION.—AUSTRALIA, 1931-32—*continued.*

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
<b>BUTTER.</b>								
In Factories	lb. 117,853,273	lb. 127,981,768	lb. 95,050,738	lb. 13,828,764	lb. 8,347,833	lb. 7,015,862	lb. ..	lb. 370,078,238
On Dairy and other Farms ..	5,399,449	4,150,044	2,962,305	3,834,265	1,761,962	2,447,004	20,803	20,575,832
Total ..	123,252,722	132,131,812	98,013,043	17,663,029	10,109,795	9,462,866	20,803	390,654,070

<b>CHEESE.</b>								
In Factories	lb. 6,476,737	lb. 7,656,819	lb. 11,016,663	lb. 5,095,391	lb. ..	lb. 874,935	lb. ..	lb. 31,120,545
On Dairy and other Farms ..	113,620	66,509	5,300	1,340	909	114,750	..	302,428
Total ..	6,590,357	7,723,328	11,021,963	5,096,731	909	989,685	..	31,422,973

<b>CONDENSED, CONCENTRATED, OR POWDERED MILK.</b>								
In Factories	lb. (b)	lb. 41,409,540	lb. (b)	lb. ..	lb. (b)	lb. ..	lb. ..	lb. 41,409,540

<b>BACON AND HAM.</b>								
In Factories	lb. 19,442,931	lb. 16,833,907	lb. 19,639,692	lb. 6,408,730	lb. 3,240,306	lb. 1,160,630	lb. ..	lb. 66,726,196
On Dairy and other Farms ..	1,025,328	1,453,497	368,535	625,709	233,127	689,048	300	4,395,544
Total ..	20,468,259	18,287,404	20,008,227	7,034,439	3,473,433	1,849,678	300	71,121,740

(a) Including milk used for making cheese. (b) Figures not available for publication. (c) A portion only from pigs slaughtered in the State, the balance being imported and subsequently cured.

Particulars in regard to the production of other milk products are not available for all the States, but the following articles were made in Victoria during 1931-32 :—Casein, 1,364,816 lb. ; other milk products, 224,658 lb.

**§ 5. Poultry Farming.**

1. *General.*—Poultry is kept in varying numbers by farmers, and production therefrom furnishes a considerable addition to the annual agricultural or dairying returns. For many years, however, poultry-keeping has been carried on as a separate industry, while it is also practised in conjunction with other rural industries. Special poultry farms have been instituted by the State Governments for scientific breeding, experts have been appointed to advise and instruct in the care and management of the various kinds of poultry raised, and exhibitions of leading breeds have been arranged, as well as egg-laying competitions. Co-operative egg-collecting circles have been formed in some districts ; eggs are also delivered with milk and cream to the local butter factories, and thence forwarded to market.

2. Poultry Products.—Difficulty is experienced in obtaining complete figures for the yield of poultry products. The following values relate to poultry and eggs:—

## POULTRY AND EGGS.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Australia.
	£	£	£	£	£	£	£
1927-28 ..	3,924,350	4,760,000	598,467	1,234,532	426,422	300,000	b11,247,869
1928-29 ..	3,329,000	4,348,000	619,329	1,053,939	456,242	300,000	b10,109,695
1929-30 ..	3,471,000	4,638,000	635,145	950,542	542,291	300,000	b10,541,053
1930-31 ..	2,886,000	3,926,000	556,620	831,020	399,430	300,000	b 8,904,600
1931-32 ..	2,806,000	3,653,000	510,031	761,612	498,957	300,000	b 8,535,482

(a) Estimated. (b) Includes Federal Capital Territory, 1927-28 £4,098, 1928-29 £3,185, 1929-30 £4,075, 1930-31 £5,530, and 1931-32 £5,882.

3. Oversea Trade in Poultry Products.—The Australian oversea export of poultry products is confined chiefly to eggs, which are mainly consigned to the United Kingdom. New South Wales, Victoria, and South Australia are the largest exporters, the total exports in 1931-32 amounting to £554,958. The levying in accordance with the Ottawa Conference Agreement of a customs duty varying between 1s. and 1s. 9d. per 10 dozen by the Government of the United Kingdom on imported eggs of foreign origin should assist Australia to obtain a larger share in this valuable market. Exports from Australia have risen from slightly more than 1 million dozen valued at £85,000 in 1927-28 to nearly 10 million dozen valued at £494,000 in 1931-32. The exports of frozen poultry have fluctuated considerably in recent years, being valued at £33,366 during 1931-32, as compared with £50,205 for 1921-22. The oversea trade during the past five years was as follows:—

## POULTRY PRODUCTS, TRADE.—AUSTRALIA.

Particulars.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
LIVE POULTRY.						
Imports ..	No.	264	310	424	176	164
„ ..	£	1,002	1,244	1,512 (b)	582	(b) 292
Exports ..	No.	2,585	2,116	2,165	1,526	2,067
„ ..	£	1,837	1,757	1,821	1,147	1,039
Net Exports ..	No.	2,321	1,806	1,741	1,350	1,903
„ ..	£	835	513	309	565	747
FROZEN POULTRY.						
Imports ..	lb.	66,677	14,315	1,097	1,695	49
„ ..	£	4,766	1,055	86 (b)	121	(b) 2
Exports ..	pair	9,570	12,419	13,908	14,553	32,597
„ ..	£	8,930	15,341	17,118	11,729	33,366
Net Exports ..	..	(a)	(a)	(a)	(a)	(a)
„ ..	£	4,164	14,286	17,032	11,608	33,364
Eggs.						
Imports ..	doz.	25,752	21,349	16,568	10,828	8,513
„ ..	£	1,579	1,210	873 (b)	458	(b) 443
Exports ..	doz.	1,104,005	2,916,338	3,570,219	5,970,696	9,921,829
„ ..	£	85,844	218,929	255,571	321,627	494,032
Net Exports ..	doz.	1,078,253	2,894,989	3,553,651	5,959,868	9,913,316
„ ..	£	84,265	217,719	254,698	321,169	493,589

(a) Quantity not available

(b) Australian currency values.

POULTRY PRODUCTS, TRADE.—AUSTRALIA—*continued.*

Particulars.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
EGG-CONTENTS.						
Imports	.. lb.	38,858	39,483	29,693	11,108	13,219
"	.. £	6,531	5,147	3,901	(b) 1,007	(b) 1,706
Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	17	127	354	5,116	60,926
Net Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	-6,514	-5,020	-3,547	4,109	59,220

(a) Quantity not available.

(b) Australian currency values.

NOTE.—The Minus (-) signifies net imports.

## § 6. Bee Farming.

1. *General.*—Although practised to some extent as a separate industry, bee-farming is frequently carried on in conjunction with agriculture or dairying. The returns of honey from productive hives during 1931-32 gave an average of 48.89 lb. per hive, while the average quantity of wax was 0.66 lb. per hive.

2. *Production of Honey and Beeswax.*—The number of hives and the production of honey and beeswax during the year 1931-32 are given in the following table :—

## BEE-HIVES, HONEY, AND BEESWAX, 1931-32.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	38,099	11,251	49,350	2,123,233	37,000	27,933	1,600
Victoria ..	37,749	17,222	54,971	2,159,770	42,745	26,239	1,531
Queensland ..	8,544	4,539	13,083	283,022	5,055	6,082	476
South Australia ..	27,366	22,302	49,668	1,240,525	18,091	17,253	917
Western Australia ..	9,941	1,432	11,373	250,146	4,160	4,251	241
Tasmania ..	3,238	2,131	5,369	52,559	1,260	644	60
Fed. Cap. Territory ..	50	22	72	1,480	26	80	5
Australia ..	124,987	58,899	183,886	6,110,735	108,337	82,482	4,830

The table hereunder gives the production of honey and beeswax for the latest available five years :—

## HONEY AND BEESWAX PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
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## HONEY.

	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1927-28	1,154,201	2,992,860	394,960	931,711	366,286	88,419	..	5,928,437
1928-29	2,354,845	4,181,571	667,846	3,047,421	509,415	89,969	12,900	10,863,967
1929-30	2,101,619	3,097,805	714,068	678,348	611,938	115,845	4,170	7,323,793
1930-31	2,643,871	2,804,186	555,244	1,717,442	641,969	102,540	10,600	8,475,852
1931-32	2,123,233	2,159,770	283,022	1,240,525	250,146	52,559	1,480	6,110,735

HONEY AND BEESWAX PRODUCTION—*continued.*

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
<b>BEESWAX.</b>								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1927-28	17,139	34,358	7,504	13,069	5,501	1,337	..	78,908
1928-29	30,064	49,675	13,629	28,041	6,555	1,465	162	129,591
1929-30	35,493	29,682	10,739	7,924	10,419	1,779	65	96,101
1930-31	36,460	30,478	8,579	16,832	9,911	2,008	139	104,407
1931-32	27,933	26,239	6,082	17,253	4,251	644	80	82,482

The production of honey and beeswax varies greatly from year to year according to the condition of the seasons. During the last five years New South Wales produced 10,377,769 lb. of honey and 147,089 lb. of beeswax, while the Victorian figures amounted to 15,196,192 lb. and 170,432 lb. respectively for honey and beeswax. These States together accounted for 66.07 per cent. of the total Australian production of honey, and 64.60 per cent. of the beeswax. Next in order of importance were South Australia, Queensland, and Western Australia.

3. *Oversea Trade in Bee Products.*—In normal years the local production of honey exceeds Australian requirements, and a small quantity is available for export. The imports into the United Kingdom average 80,000 cwt. annually, of which Australia supplies approximately 1,800 cwt. At the Imperial Economic Conference at Ottawa in 1932, the representatives of the United Kingdom, on behalf of their Government, agreed to the imposition of an import duty of 7s. per cwt. on foreign honey, and Australia should, therefore, gain a larger proportion of the trade. During the past five years the value of the exports amounted to only £22,679, or an annual average of £4,536, owing to the decrease in production. The more general use of frame hives has affected the production of wax, and as a result the quantity imported has exceeded that exported during each of the past five years.

For the year 1931-32 the imports of honey amounted to 5,264 lb. and the exports to 251,885 lb. The imports of beeswax for the same year amounted to 32,265 lb. and the exports to 2,888 lb.

### § 7. Value of Farmyard, Dairy, and Bee Products.

The value of the farmyard, dairy and bee products raised in Australia in 1931-32 was as follows :—

#### FARMYARD, DAIRY, AND BEE PRODUCTS.—VALUE, 1931-32.

Products.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£	£
Milk, consumed as such ..	2,169,251	1,894,243	487,237	300,984	325,658	239,300	..	7,751	5,424,514
Butter ..	6,604,451	7,138,199	5,359,367	1,019,595	649,102	563,676	..	1,115	21,335,505
Cheese ..	238,337	320,236	338,648	155,249	25	30,502	..	..	1,082,997
Condensed & concentrated milk	874,371	988,639	662,792	252,551	142,275	69,241	..	..	3,668,865
Bacon and ham		678,986							
Pork ..	339,682	326,571	300,833	132,466	94,068	49,096	484	1,175	1,244,375
Lard ..	11,878	23,769	23,740	6,199	3,063	4,007	..	..	72,656
Poultry and eggs	2,806,000	3,653,000	510,031	761,612	498,957	300,000	..	5,882	8,535,482
Honey and wax	38,600	44,276	5,531	19,008	4,401	1,320	..	31	113,167
<b>Total ..</b>	<b>13,082,570</b>	<b>15,067,919</b>	<b>7,688,179</b>	<b>2,647,664</b>	<b>1,717,549</b>	<b>1,257,232</b>	<b>484</b>	<b>15,964</b>	<b>41,477,561</b>

**§ 8. Exports of Australian Farmyard, Dairy, and Bee Products.**

The quantities and values of Australian farmyard, dairy, and bee products exported during each of the last five years are shown below :—

**AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS.—EXPORTS.**

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
<b>QUANTITY.</b>					
Beeswax .. .. .	lb. 3,596	1,659	1,411	1,020	2,888
Butter .. .. .	99,164,946	102,442,843	107,663,114	163,180,695	201,639,404
Cheese .. .. .	6,926,691	8,330,972	3,089,382	8,594,693	7,267,719
Egg albumen and yolk .. .. .	(a)	(a)	(a)	(a)	(a)
Eggs .. .. .	doz. 1,104,005	2,916,338	3,570,219	5,970,696	9,921,829
Feathers undressed .. .. .	(a)	(a)	(a)	(a)	(a)
Honey .. .. .	lb. 281,090	83,418	122,524	138,491	251,857
Lard .. .. .	1,359,746	1,599,050	969,512	1,043,930	2,924,492
<b>Meats—</b>					
Bacon and Ham .. .. .	1,533,967	1,461,313	1,473,036	2,100,290	1,429,367
Frozen Poultry .. .. .	pair 9,570	12,419	13,888	14,553	32,597
Frozen Pork .. .. .	lb. 158,327	158,975	932,297	8,623,651	7,383,355
Milk, concentrated and preserved .. .. .	20,622,779	25,385,174	16,493,546	12,351,024	15,996,318
Pigs, living .. .. .	No. 328	201	325	280	274
Poultry, living .. .. .	2,569	2,116	2,158	1,526	2,067
<b>VALUE.</b>					
Beeswax .. .. .	£ 346	£ 149	£ 115	£ 77	£ 178
Butter .. .. .	6,905,933	7,545,430	7,001,540	8,120,165	9,812,827
Cheese .. .. .	260,235	329,700	124,716	244,066	212,870
Egg albumen and yolk .. .. .	13	9	198	5,099	60,896
Eggs .. .. .	65,844	216,929	255,571	321,627	494,032
Feathers, undressed .. .. .	457	396	1,132	1,036	229
Honey .. .. .	6,912	2,856	3,631	3,632	5,642
Lard .. .. .	37,318	41,373	26,664	26,189	43,497
<b>Meats—</b>					
Bacon and Ham .. .. .	129,073	122,742	116,159	115,278	87,213
Frozen Poultry .. .. .	8,930	15,341	17,109	11,729	33,366
Frozen Pork .. .. .	6,152	6,773	32,683	235,857	173,373
Milk, concentrated and preserved .. .. .	1,188,504	1,424,313	997,512	610,653	642,016
Pigs, living .. .. .	1,294	934	1,365	1,186	1,074
Poultry, living .. .. .	1,817	1,757	1,801	1,147	1,939
<b>Total .. .. .</b>	<b>8,632,828</b>	<b>9,710,702</b>	<b>8,580,196</b>	<b>9,697,741</b>	<b>11,568,252</b>

(a) Quantity not available.

Butter figures most largely in the list of exports shown above, the United Kingdom being the principal country of destination. During the year 1931-32, exports thereto amounted to 185,367,596 lb., or 92 per cent. of the total. Exports to Eastern countries were 12,964,868 lb., or 6 per cent. of the total. Consignments to the countries mentioned accounted for 98 per cent. of the total exports of butter for the year specified.

**§ 9. British Imports of Dairy Products.**

**I. Quantities and Values.**—The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1927 to 1931 :—

**DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM.**

Products.	1927.	1928.	1929.	1930.	1931.
Butter .. .. .	cwt. 5,818,611	6,112,972	6,397,266	6,821,620	8,060,068
" .. .. .	£ 48,204,721	52,044,506	54,706,404	46,869,697	46,297,585
Cheese .. .. .	cwt. 2,949,082	3,005,237	2,994,038	3,112,316	2,885,794
" .. .. .	£ 13,493,668	14,997,173	13,912,535	12,602,974	9,062,707
Milk, concentrated and preserved .. .. .	cwt. 2,684,019	2,907,225	2,935,151	2,869,229	3,164,618
" .. .. .	£ 5,561,726	5,978,958	5,608,354	5,033,570	5,093,616
Bacon and ham .. .. .	cwt. 9,370,696	9,794,909	9,306,909	10,194,208	11,964,825
" .. .. .	£ 43,333,082	44,957,403	49,215,508	46,112,307	36,346,943
Pork (a) .. .. .	cwt. 234,248	289,114	359,134	436,739	432,513
" .. .. .	£ 912,271	1,014,253	1,305,804	1,641,860	1,282,774

(a) Frozen, chilled, and salted.



2. **Butter.**—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity shipped in 1931 amounted to 1,557,952 cwt., or 19 per cent. of the total importation. The Australian contribution was valued at £8,350,206, and was exceeded only by that shipped from Denmark and New Zealand.

**BUTTER IMPORTS.—UNITED KINGDOM, 1931.**

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	cwt.	£		cwt.	£
Denmark ..	2,466,070	15,639,722	Lithuania ..	39,555	204,543
New Zealand ..	1,925,611	10,773,553	Latvia ..	39,532	209,659
<b>Australia ..</b>	<b>1,557,952</b>	<b>8,350,206</b>	Poland ..	32,619	157,955
Soviet Union ..	404,369	1,969,244	Norway ..	12,618	70,280
Irish Free State ..	381,028	2,111,488	Germany ..	7,947	46,741
Argentine Republic	373,934	2,047,282	France ..	1,074	6,508
Finland ..	254,071	1,486,898	British Possessions,		
Sweden ..	211,733	1,272,517	n.e.i. ..	7,343	38,263
Estonia ..	125,384	666,984	Foreign Countries,		
Netherlands ..	96,117	598,349	n.e.i. ..	5,012	28,453
Canada ..	78,110	411,421			
Union of South Africa ..	39,989	207,519			
				8,060,068	46,297,585

(ii) *London Prices.* The average price of the best quality Australian butter in London during the past eleven years is shown in the following table:—

**AUSTRALIAN BUTTER.—LONDON PRICES.**

Year.	Average Top Price per cwt.		Year.	Average Top Price per cwt.	
	s.	d.		s.	d.
1920	(a) 299	9	1926	169	6
1921	234	0	1927	169	6
1922	183	0	1928	171	0
1923	184	6	1929	175	0
1924	189	6	1930	135	6
1925	184	0	1931	116	6

(a) Flat rate for all imported butter.

The surplus output of Australian butter was sold under contract to the British Government from 1st July, 1918, to 31st March, 1921, but thereafter it has been sold in the open market.

3. **Cheese.**—The value of cheese imported into the United Kingdom in 1931 was £9,062,707, of which £4,947,571 was received from New Zealand, and £2,322,269 from Canada. Small experimental shipments from Australia were made in 1908 and following years, fair prices being realized. The value of the imports from Australia during 1931 amounted to £193,348.

4. **Bacon and Ham.**—Of a total import of bacon and ham valued in 1931 at £36,346,943, the United Kingdom received imports to the value of £22,405,738 from Denmark, £3,035,688 from Poland, and £3,002,099 from the United States of America. The import from Australia was small, experimental shipments only having been made hitherto.

5. **Pork.**—The value of the United Kingdom imports of pork (frozen and salted only) was £1,282,774 in 1931. There was only a small importation from Australia, the bulk of the supplies being drawn from New Zealand, the United States of America, and the Argentine Republic.

6. **Other Products.**—The imports to the United Kingdom from Australia of beeswax, poultry, game, lard, or honey in 1931 were unimportant, but frozen rabbits to the value of £475,865 and eggs to the value of £582,213 were imported during the year.

## CHAPTER XX.

## FORESTRY.\*

## § 1. General.

1. **Objects of Forestry.**—Scientific forestry aims at the preservation and development of existing forest areas by safeguarding them against fire, pests and destructive agencies generally by expert supervision of the removal of timber, by judicious thinning and by reforestation of denuded areas with suitable forest growths of local or exotic origin. It provides also for the continuance of this indispensable form of national wealth by the afforestation of available bare lands proved capable of producing various timbers. Only small areas of virgin forests still remain in Australia, as extensive inroads have been made by timber-getters, by agriculturists, and by pastoralists—who have destroyed large areas by “ring-barking”—and it is not unlikely that climatological changes have resulted therefrom. It is recognized that beneficial consequences follow on the planting of trees on denuded lands, or along eroding coasts, and that a forest covering tends to regulate to the best advantage the effects of rainfall. The existing virgin forests consist of hardwood jungle, or brush, with very little softwood, and the need for extensive softwood planting is urgent.

Efficient forestry is of particular interest in connexion with the Murray River Basin, where a large expenditure from the public funds has been incurred in the provision of locks and weirs and in the formation of irrigation settlements in the lower course of the river. The stability of flow of this river in so far as it can be assured by forest plantation may be regarded as of national importance.

Successful planting of exotics in various parts of Australia has demonstrated that both climate and soil are suitable for the cultivation of a number of highly serviceable softwoods.

2. **Extent of Forests.**—(i) *Australia.* The bulk of the present local timber supply comes from the thickly forested areas in the 30-inch and over rainfall belt south of the tropics, and the 70-inch and over rainfall belt within the tropics. The total forest area included in the divisions specified is comparatively small, and is confined to the following regions:—(a) The coastal belt in the extreme south-west of Western Australia, from a little north of Perth to Albany; (b) the Otway country in the south of Victoria, and the whole of the south-eastern portion of that State; (c) the mountain forests of Victoria and New South Wales; (d) the coastal districts of New South Wales and Queensland; (e) the greater portion of Tasmania; (f) the forests on the Murray River near Echuca; (g) the cypress pine belt from the Murray northward to Queensland and westward of the coastal belt.

Over 90 per cent. of the timber trees of Australia consists of hardwoods belonging to the genus *Eucalyptus* (Gum Trees). Including the mallees, over 400 species are now recognized, but the chief commercial varieties are confined to about 50 species.

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\* A specially contributed article dealing with Forestry in Australia appeared as part of this Chapter in Official Year Book No. 19 (vide pp. 701 to 712 therein).

In addition to the hardwood forests and the cypress pine belt, the coastal strip in Queensland and northern New South Wales provides "rain" or "brush" forests. These tropical forests furnish the serviceable hoop pine, and furniture timbers such as black bean, Queensland walnut and maple, silkwood, &c.

The drier wooded area of the continent contains a large number of xerophilous trees and woody shrubs which thrive in regions receiving less than 10 inches of rain per annum. Country devoid of tree growth is rare. Unsuitable soil conditions such as basalt formations, clay pans, rock exposures or sand dunes are as a rule more responsible for treeless areas than lack of rainfall. The 300-mile stretch of the Nullarbor Plain is a treeless area where the non-retentive limestone foundation accentuates the effects of a low rainfall. While, however, the major portion of Australia carries trees, and may be said to be wooded (the term "desert" applying to relatively small areas only), dense forest is confined to a very narrow fringe. The savannah forests of the interior yield minor products such as sandalwood and tan barks, but do not produce timber. These open, park-like formations carry scattered trees of low habit only. Practically the whole of Papua and New Guinea carry or have carried dense forests, the exceptions being certain small dry belts where the rainfall is less than 70 inches. Norfolk Island was, originally, covered with a thick jungle.

Special articles relating to Australian Eucalyptus timbers and the chemical products of Eucalyptus will be found in Official Year Book No. 10, pp. 85-98.

Scientific surveys of the forests of the various States have not yet been completed, and there are, in consequence, conflicting reports regarding the total forest area of Australia. Expert foresters, however, estimate the forest area possible for permanent reservation at approximately 19,500,000 acres, distributed throughout the States as follows:—

#### ESTIMATED FOREST AREA.—AUSTRALIA.

State.				Total Forest Area.	Percentage on Total Area.
				Acres.	Per cent.
New South Wales	..	..	..	4,000,000	.224
Victoria	..	..	..	5,500,000	.301
Queensland	..	..	..	6,000,000	.335
South Australia	..	..	..	500,000	.028
Western Australia	..	..	..	3,000,000	.167
Tasmania	..	..	..	500,000	.028
Australia	..	..	..	19,500,000	1.024

(ii) *Comparison with other countries.* The table hereunder shows the absolute and relative forest areas of Australia and other countries, and the respective areas publicly and privately owned.

The figures are based on information supplied to the International Institute of Agriculture and are the latest available. Comparisons of the returns for different countries are, however, subject to the qualification that the significance of the term "forest" is not identical in all cases. In older countries, and chiefly in Europe, scientific forestry has been practised for centuries, whereas in newer lands, such as Australia, Canada, &c., it is of comparatively recent origin. Moreover, considerable areas included as forests in the newer countries contain indigenous growth of little or no commercial value, and effective comparisons cannot, therefore, be made with countries where efficient forestry has been practised for many years.

FORESTS.—AREA AND OWNERSHIP, VARIOUS COUNTRIES.

Country.	Forest Area.	Per cent. of Total Area.	Publicly Owned.	Privately Owned.
	sq. miles.	Per cent.	sq. miles.	sq. miles.
Soviet Republics .. .. .	2,589,880	63.3	2,589,880	..
Canada .. .. .	1,151,402	32.8	1,040,867	110,535
United States of America .. .. .	733,539	24.7	(a)	(a)
India .. .. .	307,928	27.5	253,816	54,112
Nigeria .. .. .	234,990	63.8	8,486	226,504
Finland .. .. .	97,538	73.5	39,733	57,805
Sweden .. .. .	89,500	56.5	21,390	68,110
Japan .. .. .	87,678	59.5	51,332	36,346
Germany .. .. .	48,857	27.0	23,541	25,316
France .. .. .	39,873	18.74	(a)	(a)
Poland .. .. .	34,531	23.0	11,603	22,928
<b>Australia (b)</b> .. .. .	<b>30,469</b>	<b>1.08</b>	(a)	(a)
Yugoslavia .. .. .	29,289	30.5	19,545	9,744
Norway .. .. .	28,955	24.2	5,646	23,309
Turkey .. .. .	28,703	9.7	27,100	1,603
Rumania .. .. .	27,544	24.2	7,929	19,615
Italy .. .. .	21,309	17.81	(a)	(a)
New Zealand .. .. .	20,778	20.2	15,033	5,745
Spain .. .. .	18,965	9.74	(a)	(a)
Czechoslovakia .. .. .	18,003	33.2	5,595	11,892
Union of South Africa .. .. .	15,958	3.4	1,231	14,727
Algeria .. .. .	12,257	10.7	9,195	3,062
Austria .. .. .	12,112	37.4	2,925	9,187
Dutch East Indies .. .. .	11,737	23.1	(a)	(a)
Bulgaria .. .. .	11,143	28.0	3,043	8,100
Greece .. .. .	9,291	18.5	6,442	2,849
Latvia .. .. .	6,874	27.1	5,568	1,306
Great Britain .. .. .	4,745	5.4	493	4,252

(a) Not available. (b) Estimate of forest area possible for permanent reservation.

3. **Requisite Proportion of Forest Area.**—It is generally held that when the forest area in any country falls below 0.86 acres per head of population, that country will be obliged to import timber. Australia possesses 3.19 acres of forest per head of population, and the excess of imports of timber over exports amounts to 28,000,000 cubic feet. There are two reasons for the excess. In the first place, the area of 19,500,000 acres given as the wooded area comprises all forest lands, reproductive or otherwise. The bulk of this area consists of cut-over forests swept by fire at frequent intervals, and the area of really productive forests has not been ascertained. Secondly, Australia does not possess a sufficient supply of softwoods, and must, therefore—with the exception of a small quantity produced in Queensland and New South Wales—import the bulk of its requirements from overseas. The figure 19,500,000 acres represents the total area that in the estimation of foresters should be reserved for forestry, and, taking the factor of 0.86, then, provided that the whole of the forest area of Australia has been brought under sylvicultural treatment, is yielding its maximum of hard and soft woods, and that there are no imports, the timber supply of Australia should be sufficient for a population of 22½ millions.

§ 2. Forestry Activities of the Commonwealth Government.

Forestry was not included amongst the matters transferred from the States to the control of the Commonwealth, and federal supervision, therefore, is restricted to the forests in the Commonwealth Territories. These territories cover a large area, and, with the exception of the Northern Territory, are capable of sound forestry development. It is only within comparatively recent years, however, that any attempt has been made to take stock of the forestry position. The Commonwealth Forestry Bureau was instituted in 1925 to initiate sylvicultural and other forest research work and to take

charge of the education and training of the professional staffs required by the Commonwealth and the State services. The Bureau received statutory powers under an Act passed in 1930. In the meantime, the Australian Forestry School was established in 1926, and not only was the training of the State forest officers begun, but a nucleus of qualified officers was sent abroad to undergo special courses of instruction with the object of staffing the research side of the Bureau. The financial situation since 1930 has delayed progress on the research side, and the educational work of the Australian Forestry School is at present the Bureau's main activity.

The forest resources of the Commonwealth Territories of Papua, New Guinea, Norfolk Island, and the Federal Capital, have been investigated, and reports in connexion therewith have been furnished and published. In the case of the Federal Capital area an active forest policy has been inaugurated.

The investigation of the dead product of the forests is entrusted to the Council for Scientific and Industrial Research, which has established a Forest Products Division. Research work is being carried out by this institution in regard to various matters, e.g., paper pulp, seasoning, preservation, tan barks, the chemistry of woods, the utilization of forest products generally, including the substitution of local for imported woods for such purposes as butter boxes and fruit cases.

### § 3. State Forestry Departments.

1. **Functions.**—With the exception of Queensland, the powers and functions of State forest authorities are laid down under Forestry Acts and regulations. In each State there is a Department or Commission specially charged with forestry work. The functions of these administrations are as follow:—(a) The securing of an adequate reservation of forest lands; (b) The introduction of proper measures for scientific control and management of forest lands to include such measures for sylvicultural treatment (i.e., regeneration treatment, thinnings, improvement, fellings, etc.), as are necessary; (c) The protection of forests; (d) The conversion, marketing and economic utilization of forest produce; (e) The establishment and maintenance of coniferous forests to remedy existing deficiency in softwoods.

Annual reports are issued by each State forest authority.

In Victoria a forestry school has been established at which recruits are trained for the forestry service of the State.

2. **Forest Reservations.**—At the Interstate Forestry Conference, held in Hobart in 1920, the State forestry authorities agreed in regard to the necessity of reserving an area of 19,500,000 acres of indigenous forest lands in order to meet the future requirements of Australia. This area was distributed among the States as set out in Section 1, 2 *ante*.

Having been endorsed by the Premiers' Conference held later in the same year, this area was adopted as the Australian forest desideratum towards the permanent reservation of which the authorities are now aiming. The progress made in the various States to the end of June, 1932, is set out in the following table:—

AREA OF FOREST RESERVATIONS, 30th JUNE, 1932.

Particulars.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Dedicated State forests ..	5,131,046	4,688,279	1,941,340	263,940	2,971,054	1,275,958	16,271,617
Timber and fuel reserves ..	1,484,867	735,839	3,366,806	..	1,856,289	950,000	8,393,851
Total ..	6,615,913	5,424,168	5,308,146	263,940	4,827,343	2,225,958	24,665,468

(a) Includes Timber and Fuel Reserves.

In addition to the work of permanently reserving their respective quotas, the State foresters are concerned with the surveying of all forest lands and the excising of those unsuitable for forestry. Considerable areas have been revoked in certain States, while dedications of new areas have resulted in gains to the permanent forest estate.

The area of State forests reserved in perpetuity amounted in June, 1932, to 16,271,617 acres, or 66 per cent. only of the quota adopted for Australia. Of this area a considerable proportion consists of inaccessible mountainous country and cut-over lands, while the Australian quota recommended refers to merchantable forest only. The foresters of Australia are, therefore, faced with a difficult task in improving and preserving the existing forests, and in securing the reservation of further suitable forest country to ensure a permanent supply of accessible timber.

The Forestry Departments also control 8,393,851 acres of temporary timber and fuel reserves, but, while these areas contain some land of high value for forestry purposes, the greater proportion thereof is not adapted for permanent reservation.

3. **Sylvicultural Nurseries and Plantations.**—Recognition of the necessity for providing by systematic sylviculture for the future softwood timber needs has led to the creation in all of the States of a number of nurseries and plantations. A brief statement showing the locality of these establishments, and the nature of their activities, will be found in the previous issues of the Official Year Book. (See Official Year Book No. 6, pp. 451-3.) Details regarding forest plantations and employment are given hereunder:—

#### FORESTRY.—AREAS AND EMPLOYMENT, 1931-32.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
Total area of indigenous forest improved or regenerated acres	918,891	591,771	82,518	8,255	184,676	..	1,786,111
Total area of Effective Plantations—							
Softwoods .. acres	32,018	30,811	7,422	46,218	5,874	1,170	123,513
Hardwoods .. acres	..	2,500	771	9,110	..	..	12,381
Number of persons employed in Forestry Departments—							
Office Staff .. No.	43	37	(b) 59	21	31	2	193
Field Staff .. No.	73	137	(b) 148	4717	4802	8	1,885

(a) Including casual hands. (b) Excluding staff of 55 engaged in connexion with Forest Sawmills.

4. **Revenue and Expenditure.**—The revenue and expenditure of State Forestry Departments from 1927-28 to 1931-32 are given below:—

#### STATE FORESTRY DEPARTMENTS.—REVENUE AND EXPENDITURE.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
REVENUE.					
	£	£	£	£	£
New South Wales ..	226,667	210,743	128,795	88,548	104,674
Victoria ..	140,715	129,684	128,645	74,583	77,189
Queensland ..	462,383	414,515	336,762	174,106	162,246
South Australia ..	37,586	34,666	48,423	33,437	83,714
Western Australia ..	228,614	191,023	173,219	94,895	57,267
Tasmania ..	17,790	14,810	10,545	10,616	8,584
Total ..	1,113,755	995,441	826,389	476,185	493,674
EXPENDITURE.					
	£	£	£	£	£
New South Wales ..	212,858	194,069	183,720	121,009	a 114,151
Victoria ..	285,271	240,191	220,875	267,055	152,820
Queensland ..	277,534	174,407	209,170	140,800	a 160,311
South Australia ..	105,279	166,903	141,633	111,759	117,882
Western Australia ..	125,745	157,827	142,376	93,974	a 93,151
Tasmania ..	11,017	8,895	10,091	13,480	8,764
Total ..	1,017,704	942,292	907,865	748,077	647,079

(a) Including expenditure from Unemployment Relief Funds as follows:—New South Wales, £7,782; Queensland, £22,650; and Western Australia, £45,454.

### § 4. The Australian Forestry School.

The Australian Forestry School was established in 1926 by the Commonwealth Government to meet the demand of the States for an institution which would give a professional training at least equal to that afforded by the recognized forestry schools abroad.

Under existing arrangements the head of the State forestry service may nominate candidates for enrolment at the school. According to the system in vogue in each State, the nomination may be made either at school leaving age or after the candidate has successfully completed the specified university courses. In the first case, the youth is helped through his university career and is given employment in practical work during the long vacations to test his suitability as a forestry officer; in the second case he is chosen later, and the practical tests are not made until the long vacation immediately preceding his entry to the school. The possession of a nomination by a State government service is not, however, essential for enrolment, since any candidate possessing the necessary qualifications will be accepted for the diploma course, and in special cases applicants desirous of studying a particular branch of forestry will be allowed to follow certain lectures only. Refresher, or post graduate courses are arranged to meet the needs of senior foresters.

A candidate for enrolment in the diploma course must possess—(a) a degree of a University, or (b) a certificate that he has completed the special two years' preliminary course at a University.

The qualifications for enrolment may be waived to assist an applicant of exceptional ability with a record of long service in a State Forestry Department, who has been specially recommended by the head of that service. Such applicants must show proof of education equal to that required for a school leaving certificate.

The course of instruction extends over three years, the first two of which are spent at the school, and the third in one of the forestry services of the Commonwealth.

The Commonwealth diploma of forestry is awarded to students on the following conditions:—(a) Successful completion of theoretical course. (b) Satisfactory field work during the course. (c) One year's satisfactory practical forestry work following the school course.

Students who have passed the approved two-year preliminary science course at the Universities of Adelaide, Melbourne, Western Australia or Queensland, and two years of Diploma course at the School, may be granted the degree B.Sc.F. by their Universities, subject to certain conditions laid down, particulars of which may be obtained from the Registrar of the University concerned.

### § 5. Forest Congresses.

Reference to the various Forestry Conferences held in Australia and elsewhere will be found in Official Year Book No. 22, p. 743, but owing to limitations of space, the information cannot be repeated herein. The Third British Empire Forestry Conference was held in Australia and New Zealand in 1928. Publications issued in connexion with this Conference are available on application to the various State and Commonwealth forestry authorities.

## § 6. Forestry Production.

1. Timber.—Particulars regarding the production of sawn timber from forest sawmills for the year 1931-32 are shown in the following table.

## SAWMILL OUTPUT OF NATIVE TIMBER, 1931-32.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
LOGS MILLED.							
Hardwood—							
Quantity cub. ft.	4,501,032	(a)	4,411,447	1,021,693	10,434,078	(a)	(a)
Value.. £	153,376	(a)	254,420	19,253	54,865	(a)	(a)
Softwood—							
Quantity cub. ft.	2,322,571	(a)	3,009,635	(c)	(c)	(a)	(a)
Value.. £	89,223	(a)	230,454	(c)	(c)	(a)	(a)
Total—							
Quantity cub. ft.	6,823,603	(a)	7,421,082	1,021,693	10,434,078	(a)	(a)
Value.. £	242,599	(a)	484,874	19,253	54,865	(a)	(a)

## SAWN TIMBER PRODUCED.

Hardwood—							
Quantity sup. ft.	34,250,992	44,775,012	18,627,850	(b)	40,777,172	19,008,369	d 157,439,395
Value.. £	328,018	(b)	261,012	(b)	330,553	109,098	e 1,028,681
Softwood—							
Quantity sup. ft.	17,851,342	..	26,634,172	(b)	81,978	536,483	d 45,103,975
Value.. £	185,087	..	406,393	(b)	980	9,492	d 601,952
Unspecified—							
Quantity sup. ft.	..	4,637,402	7,143,138	(b)	..	16,601,438	d 28,381,978
Value.. £	..	(b)	149,499	(b)	..	103,518	e 253,017
Total—							
Quantity sup. ft.	52,102,334	49,412,414	52,405,160	5,781,450	40,859,150	36,146,290	236,706,798
Value.. £	513,105	326,587	816,904	65,669	331,533	222,108	2,275,906

(a) Not available. (b) Not available separately. (c) Included with Hardwood. (d) Exclusive of South Australia. (e) Exclusive of Victoria and South Australia. (f) Including logs unspecified.

The next table gives the sawmill output of native timber for the five years ending 1931-32.

## SAWMILL OUTPUT OF NATIVE TIMBER.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.
New South Wales	146,575	136,051	119,021	57,532	52,102
Victoria .. ..	100,567	79,018	86,145	42,274	49,413
Queensland .. ..	102,192	106,862	92,248	58,770	52,405
South Australia ..	4,833	3,219	3,613	3,412	5,782
Western Australia ..	163,180	145,043	123,572	74,324	40,859
Tasmania .. ..	53,174	46,195	60,038	30,578	36,146
Total .. ..	570,521	516,388	484,637	266,890	236,707

In addition to the sawn timber shown in the table, a large amount of other timber, e.g., sleepers, piles, poles, fencing material, timber used in mining, and fuel, is obtained from forest and other lands. Complete information in regard to the volume of this output is, however, not available. In Western Australia, particulars are obtained of the quantities of timber hewn by contractors for the Railway Department, Mines, etc., as



well as of the quantities sawn in establishments other than forest sawmills, but the figures have not been included in the two preceding tables. The quantities so produced in the past five years were as follow :—1927–28, 64,451,395 sup. feet; 1928–29, 29,281,146 sup. feet; 1929–30, 36,071,054 sup. feet; 1930–31, 38,158,959 sup. feet; 1931–32, 16,831,214 sup. feet. The annual reports of the Forest Departments in each State contain particulars concerning the output of timber from areas under departmental control, but owing to lack of uniformity in measurements accurate determination of total production cannot be made. Efforts, however, are being made to obtain more comparable information. Moreover, there is a fair quantity of hewn timber produced from privately owned land, but information regarding output is not available.

At the Conference of Statisticians in August, 1932, it was agreed that the computation of satisfactory statistics of timber production other than sawn timber necessitates a preliminary investigation which might with propriety be undertaken by the Forestry Departments. In the meantime, efforts are being made by the Statisticians to obtain more comprehensive information.

2. **Other Forest Products.**—(i) *Eucalyptus Oil.* Oil may be distilled from the foliage of all varieties of eucalyptus, and several of them furnish a product widely known for its commercial and medicinal uses. Complete information regarding Australian production and consumption of eucalyptus oil is not available, but large quantities are manufactured, particularly in Victoria. Oversea exports amounted in 1927–28 to £90,729, in 1928–29 to £85,009, in 1929–30 to £63,388, in 1930–31 to £47,090, and in 1931–32 to £40,977, the bulk of the product being shipped from Victoria to the United Kingdom, the United States, and Germany. Large quantities of the crude oil are used locally in flotation processes in connexion with the recovery of gold and other minerals.

(ii) *Sandalwood Oil.* The distillation of oil from Western Australian sandalwood has been characterized by improvement both in quality and in quantity within recent years. It is claimed that the Western Australian oil is at least as valuable medicinally as the well-known Mysore oil, besides having an extensive use in the manufacture of perfumes. Overseas exports of essential oils from Western Australia amounted in 1927–28 to £38,919, in 1928–29 to £63,307, in 1929–30 to £77,510, in 1930–31 to £56,170, and in 1931–32 to £59,301. The bulk of the product consisted of sandalwood oil which was shipped principally to the United Kingdom, Eastern States of Australia, Germany, etc.

(iii) *Tan Barks.* The forests of Australia are capable of yielding a wealth of tannin materials, many species of eucalyptus and other genera containing varying proportions of tannin, chiefly in the bark, but in the wood and twigs also. Although many of these species contain higher percentages of tannin than is found in the bark of oak, chestnut and hemlock, formerly the chief source of tannin material in the northern hemisphere, scattered distribution has resulted in the richest tan-bearing species only being used in Australia. These are :—Golden wattle (*Acacia pycnantha*), black or green wattle (*Acacia decurrens* or *mollissima*), mallet (*Eucalyptus astringens*).

In pre-war days the production of wattle bark was more than sufficient for local requirements, and an export trade was built up. The supply diminished during the six years ending 1926–27, and Australia imported on the average about 2,900 tons each year from Natal, where the plantations were originally started from Australian seed. During the past four years, however, the excess of exports over imports averaged 3,235 tons, valued at £35,370, the chief exporting State being South Australia. The other valuable tan bark, mallet (*Eucalyptus astringens*) of Western Australia, is not extensively used in Australian tanneries, but is exported to Europe and other countries, where it is used for producing a tannin extract. A brief account of the work done by the Council for Scientific and Industrial Research in connexion with tanning materials will be found in Official Year Book No. 22, page 743. The production of extract from the bark of karri, (*Eucalyptus diversicolor*), of which very large quantities are available at karri sawmills, has passed the experimental stage, and private enterprise has recently started production on a commercial scale. The experimental work in kino impregnated marri (*Eucalyptus calophylla*) bark is not yet complete. The production of tan bark in Australia is estimated at about 25,000 tons per annum.

3. **Value of Production.**—Owing to the lack of complete information concerning hewn timber, referred to on a previous page, coupled with the difficulty in arriving at accurate values in respect of firewood, the figures showing total value of forest production inserted in the next table must be regarded as estimates.

**VALUE OF FOREST PRODUCTION.—AUSTRALIA.**

Production.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
Total ..	10,339,000	9,450,000	9,103,000	6,488,000	7,703,000

**§ 7. Commercial Uses of Principal Australian Timbers.**

1. **General.**—The uses of the more important Australian timbers are many and various, and are indicated in previous issues of this work. (See Official Year Book No. 6, pp. 454-6; and Official Year Book No. 10, Section III., § 7 and 8.)

A list of Australian timbers best known on the local markets appeared in Official Year Book No. 20, p. 713. [Further references are made in "Timber and Forest Products of Queensland (E. H. F. Swain), published in 1928.]

2. **Lack of Uniformity in Nomenclature.**—Unfortunately the vernacular names applied to the gums, ironbarks, etc., in the various States, and even in different parts of the same State, do not always refer to identical timbers. The resulting confusion has not only been productive of loss, but it has, to some extent, prejudicially affected the timber trade. This subject is referred to at some length in the special article "Australian Eucalyptus Timbers," in Section III., § 7 and 8, in Official Year Book No. 10. At the Forestry Conferences alluded to above, the matter came up for special consideration, and steps were taken to establish a uniform nomenclature.

**§ 8. Oversea Trade.**

1. **Imports.**—(i) *Dressed Timber.* The quantity and value of timber imported into Australia during the four years 1928-29 to 1931-32 inclusive are shown according to countries of origin in the following tables:—

**DRESSED TIMBER.—IMPORTS, AUSTRALIA.**

Country of Origin.	Quantity.				Australian Currency Values.			
	1928-29.	1929-30.	1930-31.	1931-32.	1928-29.	1929-30.	1930-31.	1931-32.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ..	8,117	3,693	1,848	264	303	131	201	38
Canada ..	7,361,669	8,952,360	3,920,447	2,105,195	80,590	96,132	43,238	26,899
Other British Countries ..	212,733	104,437	92,498	25,116	2,124	898	982	248
Norway ..	36,184,991	22,459,088	3,200,306	1,712,394	391,159	212,505	34,836	15,936
Sweden ..	25,934,266	43,501,713	2,389,990	1,308,711	290,814	406,001	25,988	14,756
United States ..	7,851,388	8,022,251	3,952,219	53,001	86,289	88,836	34,978	1,359
Other Foreign Countries	358,136	1,278,267	285,008	165,327	7,312	17,154	5,902	3,524
Total ..	77,911,300	84,321,809	13,842,316	5,370,008	858,591	821,717	146,125	62,760

The figures in the table above are exclusive of items such as architraves, veneers, etc., quantities for which are either not shown, or are expressed in dissimilar units in the Customs entries. The total value of the items so excluded amounted to £39,894 in 1931-32, including plywood, veneered or otherwise, £1,958.

The bulk of the imports of dressed timber comes from Norway, Sweden, and the United States. Practically the whole of this timber consists of softwoods—deal and pine—used for lining, weatherboards, flooring, shelving, doors, box-making, etc.

(ii) *Undressed Timber.* Australian imports of undressed timber for the latest available four years are given hereunder :—

**UNDRESSED TIMBER, INCLUDING LOGS.(a)—IMPORTS, AUSTRALIA.**

Country of Origin.	Quantity.				Value(b).			
	1928-29.	1929-30.	1930-31.	1931-32.	1928-29.	1929-30.	1930-31.	1931-32.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom	502,310	97,258	1,635,051	72,162	10,496	9,591	13,283	8,211
Canada	12,199,691	43,715,830	21,299,710	75,835,435	97,384	305,569	95,504	352,720
India	442,651	62,123	30,148	37,933	14,246	2,647	2,124	1,695
Malaya (British)	149,388	169,360	101,577	92,688	2,113	1,452	878	849
New Zealand	37,320,809	37,172,537	15,918,061	23,177,441	484,856	459,095	215,809	296,538
Other British Countries	2,926,161	3,540,928	2,238,999	1,280,271	28,567	31,806	23,238	12,843
Japan	7,512,930	7,344,925	978,626	311,900	146,576	149,085	16,914	3,371
Netherlands East Indies	1,582,775	1,269,866	..	..	9,301	9,921	..	..
Norway	565,474	153,229	88,325	27,902	6,676	1,262	1,036	169
New Caledonia	1,461,433	1,181,507	911,724	139,775	12,719	11,622	11,710	1,557
Philippine Islands	3,943,533	5,779,971	433,041	93,185	60,056	79,219	6,620	670
Sweden	3,512,105	4,147,499	66,791	537,808	33,576	38,184	801	4,452
United States	250,803,732	233,538,575	61,561,589	18,585,996	2,144,665	1,811,759	312,623	110,034
Other Foreign Countries	165,646	287,739	1,235,299	1,408,034	3,366	4,407	9,596	9,161
Total	323,088,698	338,461,347	106,498,941	121,600,530	3,054,597	2,915,619	710,136	802,270

(a) Exclusive of timber not measured in super. feet.

(b) Australian currency values.

By far the larger proportion of the undressed timber imports consists of softwoods such as oregon, redwood, hemlock, western red cedar and yellow pine from the United States and Canada; kauri, rimu, and white pine from New Zealand; and red and white deals from Norway and Sweden. Amongst the hardwoods imported, the principal are oak from the United States of America and Japan, teak from India, and furniture woods from the Pacific Islands.

2. *Exports.*—The quantity and value of undressed timber exported from 1927-28 to 1931-32 are given below, the countries of destination being also shown :—

**UNDRESSED TIMBER, INCLUDING LOGS.(a)—EXPORTS, AUSTRALIA.**

Country to which Exported.	Quantity.					Value.				
	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	£	£	£	£	£
United Kingdom	7,751	9,191	11,722	12,399	13,173	85,024	104,314	127,469	141,746	153,315
Canada	213	529	212	125	40	4,338	10,226	5,087	2,498	682
Ceylon	6,679	4,069	12,013	10,328	6,700	67,056	46,051	120,873	104,668	65,952
Hong Kong	184	478	28	820	355	2,818	5,813	440	7,307	2,126
India	10,946	6,124	1,391	32	..	119,192	70,202	15,607	316	..
Malaya (British)	4,840	574	39	103	23	49,879	5,745	410	1,147	473
Mauritius	1,380	1,240	382	1,017	408	13,796	12,434	3,840	10,160	4,093
New Zealand	18,350	23,041	24,256	22,671	7,675	262,422	308,057	318,671	271,244	83,467
Pacific Islands—										
Fiji	1,480	1,155	1,297	813	510	23,484	18,932	21,834	12,987	7,408
Territory of New Guinea	489	650	356	92	429	8,835	10,898	6,269	1,293	4,772
Other Islands	1,027	1,003	840	624	316	18,260	16,515	14,496	9,284	4,848
Papua	247	136	149	80	105	4,818	2,709	3,197	1,223	1,932
South African Union	41,519	24,981	17,447	5,843	8,646	467,922	269,522	188,678	65,972	83,187
Other British Countries	..	..	..	..	129	..	..	..	..	1,287
Africa	..	..	..	..	..	..	..	..	..	..
Portuguese East	..	..	..	..	193	..	..	..	..	2,343
Belgium	82	1,230	1,246	528	615	852	12,579	12,460	5,713	6,132
China	5	2,006	89	5,292	3,670	77	20,521	1,018	51,703	23,513
Egypt	355	..	1,039	..	..	3,793	..	10,385	..	..
Germany	..	..	..	..	176	..	..	..	..	1,869
Japan	7	219	50	..	38	155	3,380	768	..	801
Netherlands	..	..	..	..	1,036	..	..	..	..	10,491
Pacific Islands—										
New Caledonia	12	33	23	..	88	233	642	378	..	..
Other Islands	176	309	144	68	..	2,979	4,674	2,364	1,212	1,613
U.S. of America	1,480	6,427	5,737	1,332	3,039	26,313	105,352	85,860	22,897	42,453
Other Foreign Countries	1,786	9,211	3,901	1,000	54	19,757	96,928	42,569	11,581	421
Total	99,008	92,606	82,361	63,167	47,418	1,182,603	1,125,494	982,673	722,951	503,178

(a) Exclusive of timber not measured in sup. feet.

The bulk of the exports of undressed timber was consigned to South Africa, New Zealand, India, and the United Kingdom, and consisted largely of the Western Australian hardwoods, jarrah and karri, which have earned an excellent reputation for such purposes as railway sleepers, harbour works, wood paving, etc. Considerable quantities of pole, pile and girder timber are also exported from New South Wales to New Zealand.

3. Classification of Imports and Exports.—(i) *General.* The quantities of timber classified according to varieties imported and exported during the year 1931-32 are given in the next table:—

**TIMBER, VARIETIES IMPORTED AND EXPORTED.—QUANTITIES, AUSTRALIA, 1931-32.**

Description.	Unit of Quantity.	Imports.	Exports.	Excess of Imports over Exports.
Dressed .. .. .	Sup. ft.	5,370,008	708,093	4,661,915
Undressed, including logs .. .. .	"	121,600,530	47,418,389	74,182,141
Architraves, mouldings, etc. .. .. .	lin. ft.	12,114	37,856	-25,742
Plywood, veneered or otherwise .. .. .	sq. ft.	281,816	(b)	(a)
Palings .. .. .	No.	..	120,196	-120,196
Pickets .. .. .	"	..	..	..
Shingles .. .. .	"	49,242	..	49,242
Staves—				
Dressed, etc. .. .. .	"	578,291	..	578,291
Undressed .. .. .	"	1,425,763	..	1,425,763
Laths—				
For blinds .. .. .	"	(a)	..	..
Other .. .. .	"	..	..	..
Doors .. .. .	"	5	(a)	(a)
Wood pulp .. .. .	ton	25,783	(b)	(a)
Veneers .. .. .	—	(a)	(b)	(a)
Spokes, rims, felloes, etc. .. .. .	—	(a)	(a)	(a)
Other .. .. .	—	..	..	..

(a) Quantity not available. (b) Exports not recorded separately.  
NOTE.—The minus sign (—) denotes an excess of exports.

Similar particulars relative to the values of imports and exports during the year 1931-32 are shown hereunder:—

**TIMBER, VARIETIES IMPORTED AND EXPORTED.—VALUES, (b) AUSTRALIA, 1931-32.**

Description.	Imports.	Exports.	Excess of Imports over Exports.
	£	£	£
Dressed .. .. .	62,761	9,989	52,772
Undressed, including logs .. .. .	802,270	503,178	299,092
Architraves, mouldings, etc. .. .. .	139	409	-270
Plywood, veneered or otherwise .. .. .	2,495	(a)	2,495
Palings .. .. .	..	1,231	-1,231
Pickets .. .. .	..	..	..
Shingles .. .. .	139	..	139
Staves—			
Dressed, etc. .. .. .	32,375	..	32,375
Undressed .. .. .	10,423	..	10,423
Laths—			
For blinds .. .. .	..	..	..
Other .. .. .	..	..	..
Doors .. .. .	10	857	-847
Wood pulp .. .. .	243,135	(a)	243,135
Veneers .. .. .	15,340	(a)	15,340
Spokes, rims, felloes, etc. .. .. .	469	830	-361
Other .. .. .	2,500	..	2,500
Total .. .. .	1,172,056	516,494	655,562

(a) Exports not recorded separately. (b) Australian currency values.  
NOTE.—The minus sign (—) denotes an excess of exports.

(ii) *Sandalwood.* A considerable quantity of sandalwood is exported, principally from Western Australia to Hong Kong and China, where it is highly prized and largely used for artistic and ceremonial purposes. Particulars for the past five years are as follows:—

## SANDALWOOD.—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.					Value.				
	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	ton.	ton.	ton.	ton.	ton.	£	£	£	£	£
Hong Kong ..	4,856	5,432	2,482	50,193	1,286	142,890	156,086	57,688	62,741	38,068
India ..	314	352	288	1,621	209	11,434	12,310	9,437	2,585	6,270
Malaya (British) ..	397	150	63	520	115	13,610	4,418	1,716	770	3,370
Other British Countries ..	13	17	15	220	7	470	594	424	330	213
China ..	822	3,486	737	6,599	649	25,170	103,485	19,521	6,363	12,651
Other Foreign Countries ..	46	33	37	120	78	1,052	1,345	641	180	2,342
<b>Total ..</b>	<b>6,448</b>	<b>9,470</b>	<b>3,622</b>	<b>59,273</b>	<b>2,344</b>	<b>194,626</b>	<b>278,238</b>	<b>89,427</b>	<b>72,969</b>	<b>62,914</b>

(iii) *Tan Bark.* Tan bark figures both as an export and import in the Australian trade returns. The table hereunder refers to exports:—

## TAN BARK.—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.					Value.				
	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
United Kingdom ..	1,505	11,153	..	1,138	2,298	922	5,488	..	510	978
New Zealand ..	27,070	17,934	22,038	14,415	41,260	21,431	12,496	14,109	8,100	19,570
Other British Possessions ..	22	20	2	..	20	11	12	3	..	9
Germany ..	15,414	26,466	41,567	30,059	35,441	10,086	15,256	21,266	14,097	17,133
Other Foreign Countries ..	2,538	1,231	6,433	24,745	10,042	1,061	546	3,226	10,527	4,599
<b>Total ..</b>	<b>46,549</b>	<b>56,804</b>	<b>70,040</b>	<b>70,357</b>	<b>89,061</b>	<b>33,511</b>	<b>33,798</b>	<b>38,604</b>	<b>33,234</b>	<b>42,289</b>

The exports of tan bark from Australia during the past five years consisted largely of mallet bark from Western Australia. The shipments of this bark, exported mainly to Germany, are not so large as in pre-war days, owing to the cutting out of supplies. A considerable improvement, however, was shown during the past four years. A vigorous policy of reforestation is now in operation, and an increased permanent annual export may be expected in the near future. New Zealand took 46 per cent. of the total exports on the basis of values. Wattle bark is exported chiefly from South Australia.

A comparison of the imports and exports of tan bark during the last five years is given in the next table :—

## TAN BARK.—IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	cwt.	cwt.	cwt.	cwt.	cwt.
<b>QUANTITIES—</b>					
Imports .. .. .	5,114	1,562	1,936	596	21
Exports .. .. .	46,549	56,804	70,040	70,357	89,061
Excess of exports over imports	41,435	55,242	68,104	69,761	89,040
	£	£	£	£	£
<b>VALUES—</b>					
Imports .. .. .	2,633	755	950	(a) 266	(a) 13
Exports .. .. .	33,511	33,798	38,604	33,234	42,289
Excess of exports over imports	30,878	33,043	37,654	32,968	42,276

NOTE.—The minus sign (—) denotes excess of imports.

(a) Australian currency values.

The imports consist almost exclusively of wattle bark from the plantations in South Africa. One variety of Australian wattle is found to flourish in the sandy belts near the coast, but it is the *Acacia decurrens*, var. *mollis*, which is chiefly relied upon for the production of wattle bark in the South African plantations. Seed has been tried from New South Wales, Tasmania and Victoria, but it is stated that most of the seed is obtained from the best wattle bark areas in eastern Tasmania and western Victoria.

Two reasons are given to account for the success of the industry in South Africa. (a) It is found that the treeless, grassy highlands of Natal are specially suitable for wattle culture, and the trees can therefore be grown in rows and economically attended to, while the necessary bark sheds and other appurtenances can be placed in the most advantageous positions. (b) There is an abundance of cheap and efficient native labour.

(iv) *Other Tanning Substances.* Considerable quantities of tanning substances other than bark are annually imported into Australia. The total value of the importations in 1931-32 was £42,292, and was composed as follows :—Wattle bark extract, £290; quebracho extract, £12,560; other extract, £9,285; and valonia, myrobalans, catch, etc., £20,157.

## CHAPTER XXI.

## FISHERIES.\*

## § 1. General.

1. **Fish Stocks.**—Australia possesses an abundant and varied fish fauna, which embraces both tropical and temperate varieties and includes destructive as well as valuable species. In rivers and lakes both indigenous and imported varieties thrive. The latter have been introduced and acclimatized for industrial and sporting purposes by Governments and angling societies. Exploitation of the fishing areas is controlled by governmental authority. In some cases the minimum size of the fish to be taken is fixed, and in other cases the taking of some kinds is prohibited during periods prescribed according to the necessity.

2. **Progress of Industry.**—(i) *Transport and Marketing.* Despite the abundance of edible fish, the progress of the fishery industry in Australia has been slow, and transport and marketing of the proved supplies have not been satisfactorily dealt with.

In New South Wales, as shown in § 5 herein and § 6 of this Chapter in Official Year Book No. 17, the matter of exploiting trawlable fish was undertaken by the State Government, which also took steps to improve the conditions under which ordinary coastal fishing is carried on. In Queensland, State trawling was undertaken in 1919, and good trawling areas have been located and charted between Cape Moreton and Caloundra.

(ii) *Economic Investigations.* Although valuable work has been carried out by the State Governments in the way of experiment and culture, much yet remains to be done before the industry is at all commensurate in extent with the industrial progress or consuming capacities of Australia. All live fish imported into Australia are examined on shipboard in order to prevent the importation of undesirable fish. With the object of ascertaining the movements of oceanic fishes, and of estuarine fishes which make periodical oceanic migrations, reports are furnished regarding the various kinds of fishes, etc., and their movements along the coast. Details regarding the activities of the States in fish-culture were given in Official Year Book No. 6, pp. 471-2. By arrangement with the Commonwealth Fisheries Department some years ago members of the staff of the Australian Museum, Sydney, accompanied the F.I.S. *Endeavour* on various cruises. Specimens were collected, mounted for scientific purposes, and distributed to other Australian Museums, a considerable number being put aside for the Commonwealth Fishery Museum. As pointed out in § 4, however, this vessel was lost with all hands in 1914, and has not since been replaced.

With the object of reviewing the potentialities of the fishing industry of Australia, the Development and Migration Commission convened a meeting of State and Commonwealth representatives. The Conference, which was held in Melbourne during September, 1927, affirmed:—

- (1) The importance of establishing a Marine Biological Institution to study the scientific problems connected with Australian fisheries, and to collect and disseminate authoritative information and give advice on matters concerning the fisheries.
- (2) The desirability of establishing an experimental trawling unit to explore the fisheries resources of Australia.

Committees were formed to deal with important problems concerning the preservation, transportation, marketing, and distribution of fish, canning and curing of fish, the production of fish by-products, factors of destruction in fisheries, the development of the oyster industry, etc. The reports submitted by these Committees to a further conference held in July, 1929, were adopted and forwarded to the Federal and State Governments,

\* A specially contributed article dealing with the Marine and Fresh Water Fisheries of Australia appeared as § 6 of this Chapter in Official Year Book No. 17 (*vide pp. 752 to 767 therein*).

with a recommendation that the necessary action be taken to carry out the procedure outlined therein. It was recommended that the Commonwealth Government undertake the investigation work, and a sum of £20,000 was placed on the estimates for 1933-34 for this purpose. It is proposed to expend this amount in (i) procuring an up-to-date vessel specially designed for exploratory work in connexion with pelagic or surface swimming fish; (ii) carrying out experiments in conjunction with private enterprise in connexion with canning of Australian fish; (iii) carrying out tests in conjunction with private enterprise to determine the best methods of curing and preserving fish, especially the more common varieties; and (iv) co-operating with State authorities in the study of systems of distribution of fish in each State, with a view to the improvement of existing transport and marketing arrangements. The establishment of by-products industries for the treatment of inedible fish and the production therefrom of fish meal and oil is also being considered. It is hoped that this will assist in the cheapening of fresh fish as well as in the economic development of the industry. The Commonwealth Director of Development is entrusted with the carrying out of the programme.

3. **Consumption of Fish.**—It has been said that the Australians are not an "ichthyophagous" race, seeing that the annual consumption of fish per head of population in Great Britain is set down at 42 lbs., while in Australia it has been estimated at only 13 lbs. The heavy imports of dried and preserved fish indicate, however, that there is scope for the development of the industry, which now seems to be ill-managed, the price to the consumer being high, while the fisherman's gain is uncertain, and the system of distribution lacks method.

4. **Oyster Fisheries.**—Natural oyster beds exist on the foreshores in the shallow waters of inlets and estuaries in several parts of Australia. By husbanding the natural crop, and by judicious transplanting, the output has been very materially augmented. The areas are leased by the Government to private persons, lengths of foreshore being taken up under oyster leases. In New South Wales and Queensland the industry has thriven, and small yields are obtained in South Australia, Victoria, and Tasmania.

5. **Pearl-Shell, Pearls, Bêche-de-Mer, etc.**—(i) *General.* Pearl-shelling is carried on in the tropical waters of Queensland, the Northern Territory, and Western Australia. The pearl oyster inhabits the northern and western coastal waters from Cape York to Shark Bay, a length of shore of over 2,000 miles. The shells are marketed in considerable quantities, and pearls are obtained in Queensland, Western Australia and the Northern Territory. The fishing is generally conducted with the aid of diving apparatus in water varying from 4 to 20 fathoms in depth. In Queensland and the Northern Territory the bêche-de-mer industry is carried on, and tortoise-shell is obtained on the coasts. Experiments have been made in cultivating the pearl oyster on suitable banks. In October, 1911, a pearl weighing 178 grains, and valued at £3,000, was obtained at Broome. Further details regarding pearl-shelling are given in Official Year Book No. 6, p. 463. Trochus-shell to the value of £76,116, £71,714, £44,515, £44,682 and £32,532 was exported from Australia during 1927-28, 1928-29, 1929-30, 1930-31 and 1931-32 respectively.

(ii) *Royal Commission on Pearl-shelling Industry.* In accordance with the "White Australia" policy it was originally determined that the employment of Asiatic labour in the pearl-shelling industry should be restricted, and ultimately cease, and it was proposed that after 31st December, 1913, permits to bring in Asiatics for the pearling-fleet should no longer be issued. In view, however, of the disorganization of the industry occasioned by the war, the time was extended to the 30th June, 1918, after which date permits to introduce Asiatic labour were to be granted only in cases where the diver and tender of a boat were Europeans. The Royal Commission appointed in March, 1912, presented its final report in 1916. The Commissioners stated that, though it might be practicable, they did not consider it advisable or profitable to attempt to transfer the industry from Asiatics to Europeans. They further stated that, while the labour now employed is almost entirely Asiatic, they did not consider that the "White Australia" policy would be weakened or imperilled by allowing the industry to continue as at present conducted.



### § 2. The Fishing Industry.

1. Boats and Men Engaged, and Take.—(i) *General Fisheries.* The returns have been compiled from particulars supplied by the State Departments, and while the data do not generally lend themselves to presentation on a uniform basis, the principal facts have been incorporated in the tables hereunder :—

#### GENERAL FISHERIES, 1931.

State or Territory.	No. of Boats Engaged.	Value of Boats and Equip-ment.	No. of Men Em-ployed.	Total Take of—		Value of Take.	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	cwt.	doz.	£	£
New South Wales ..	1,466	261,476	3,633	197,748	8,597	553,695	(c) 63,696
Victoria .. .. .	843	115,637	1,518	104,547	13,468	146,365	6,734
Queensland .. ..	916	71,514	1,818	73,920	(d) 10,042	136,116	(e) 7,585
South Australia ..	900	150,000	1,200	(b) 125,000	(a)	6180,000	(f)
Western Australia ..	258	54,100	551	36,917	16,371	103,367	6,134
Tasmania .. .. .	269	57,450	351	23,948	56,635	46,375	33,980
Northern Territory	5	1,000	5	150	..	420	..
<b>Total .. .. .</b>	<b>4,657</b>	<b>711,177</b>	<b>9,076</b>	<b>562,230</b>	<b>105,113</b>	<b>1,166,338</b>	<b>118,129</b>

(a) Not available.  
and 3,994 dozen crabs.  
with fish.

(b) Estimate.  
(d) Crabs.

(c) Including £50,800, the value of 8,893 cwt. prawns  
(e) Including 134 turtles valued at £200.

(f) Included

Returns for the past five years are given in the table below :—

#### GENERAL FISHERIES.—AUSTRALIA.

Particulars.	1927.	1928.	1929.	1930.	1931.
No. of boats engaged .. ..	4,843	5,213	4,546	4,681	4,657
No. of men employed .. ..	7,987	8,600	8,979	9,293	9,076
Fish obtained—					
Quantity .. .. . cwt.	443,984	546,949	650,518	613,859	562,230
Value .. .. . £	1,139,218	1,435,427	1,439,355	1,269,735	1,166,338
Lobsters obtained—Value	£ 1140,439	1155,890	1151,208	1133,950	1118,129

(a) Exclusive of South Australia.

(ii) *Edible Oyster Fisheries.* Edible oyster fisheries are of small dimensions outside New South Wales and Queensland. During 1931, the available returns show the following takes :—New South Wales, 38,616 cwt., value £55,165; Queensland, 11,329 cwt., value £16,143. In Tasmania the scallop is far more important than the oyster. In 1931, the scallops taken in Tasmania were valued at £4,530.

Returns for Australia for the last five years are given in the appended table :—

#### EDIBLE OYSTER FISHERIES.—(a) AUSTRALIA.

Particulars.	1927.	1928.	1929.	1930.	1931.
No. of boats engaged .. ..	813	835	808	790	724
No. of men employed .. ..	790	833	804	741	681
Oysters obtained—					
Quantity .. .. . cwt.	67,422	64,991	70,773	55,214	50,350
Value .. .. . £	129,215	121,358	134,223	106,422	b 76,108

(a) Exclusive of South Australia.

(b) Including £4,530 for scallops in Tasmania.

(iii) *Pearls, Pearl-shell and Bêche-de-mer.* Figures regarding the production, trade, etc., for these items, so far as they are ascertainable, are given hereunder. As regards pearls, for obvious reasons no correct estimate can be obtained of the value of those found. Pearl-shell (*Margaritifera*) is widely distributed in North Australian waters over an area facing some thousands of miles of coastline, though not intensively over the whole distance. The north-west beds are the most prolific, but those around and to the north of Cape York are also of importance. There is need for further investigation into the occurrence of this valuable shell, as well as of trochus, green snail, window-pane shell (*Placuna*), the various types of trepang or bêche-de-mer (*Holothuria*), both in tropical Australian waters and those of Papua and the mandated area of New Guinea. Particulars as returned for the year 1931 are as follow :—

## PEARL, PEARL-SHELL, AND BÊCHE-DE-MER FISHERIES, (a) 1931.

State or Territory.	Number of Boats Engaged.	Value of Boats and Equip-ment.	Number of Men Em-ployed.	Quantity of Pearl-shell obtained.	Value of Pearl-shell obtained.	Value of Pearls obtained. (b)	Value of Bêche-de-mer obtained.	Value of Tortoise shell obtained.
	No.	£	No.	Tons.	£	£	£	£
Queensland (c) ..	91	94,650	1,129	469	76,197	..	33,437	264
Western Australia (c)	132	54,318	836	616	98,690	4,415	267	363
Northern Territory	18	18,000	144	225	45,000	3,000	14,587	15
Australia ..	241	166,968	2,109	1,310	219,887	7,415	48,291	642

(a) No pearl-shelling industry in New South Wales, Victoria, South Australia, and Tasmania. (b) Incomplete; as returned. (c) Also trochus-shell to the value of £33,168 in Queensland and £266 in Western Australia.

The figures for tortoise-shell and trochus-shell as returned are defective, as the necessary information is not collected in full detail. In the following summary of production during the past five years, export figures of Australian origin are inserted for both of these items :—

## PEARL, PEARL-SHELL, AND BÊCHE-DE-MER FISHERIES.—AUSTRALIA.

Particulars.	1927.	1928.	1929.	1930.	1931.
No. of boats engaged ..	297	307	289	258	241
No. of men employed ..	2,062	2,407	2,334	1,977	2,109
Pearl-shell obtained—					
Quantity .. tons	2,243	2,212	3,112	1,295	1,310
Value .. £	332,739	345,227	455,578	251,448	219,887
Pearls obtained (a)—					
Value .. £	22,863	29,615	23,017	8,672	7,415
Bêche-de-mer obtained—					
Quantity .. tons	(b)	(b)	(b)	(b)	(b)
Value .. £	14,693	17,893	24,706	14,784	48,291
Tortoise-shell exported—					
Value .. £	2,894	3,113	693	921	1,112
Trochus-shell exported—					
Value .. £	76,116	71,714	44,515	44,682	32,532

(a) Incomplete; as returned.

(b) Not returned.

2. *Fish Preserving.*—To encourage the industry, the Federal Parliament provided a bounty of ½d. per lb. for fish preserved as prescribed during the ten years 1907–8 to 1916–17. This amounted to only £3,005 during the period, or at the rate of £300 per annum, failed to develop the industry, and was not renewed on its expiration in 1916–17. Consideration of a further attempt to develop this branch of the fishing industry is now receiving the attention of the Commonwealth Government. Details of the proposals are shown in § 1 hereinbefore.

3. State Revenue from Fisheries.—The revenue from fisheries in each State during the year 1931 is given hereunder:—

## FISHERIES.—REVENUE, 1931.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales ..	1,510	10,348	138	200	12,196
Victoria .. ..	1,257	118	274	2	1,651
Queensland .. ..	3,099	2,022	61	72	5,254
South Australia ..	1,694	..	..	..	1,694
Western Australia ..	1,580	250	175	257	2,262
Tasmania .. ..	897	103	..	6	1,006
Northern Territory ..	297	1	..	..	298
Total .. ..	10,334	12,842	648	537	24,361

Similar particulars for Australia for the last five years are given in the following table:—

## FISHERIES.—REVENUE, AUSTRALIA.

Particulars.	1927.	1928.	1929.	1930.	1931.
	£	£	£	£	£
Licences .. ..	11,769	12,864	11,614	11,177	10,334
Leases .. ..	16,531	16,498	16,332	14,681	12,842
Fines and Forfeitures ..	748	1,216	1,105	877	648
Other Sources .. ..	739	760	942	557	537
Total .. ..	29,787	31,338	29,993	27,292	24,361

## § 3. Oversea Trade in Fishery Products.

1. Imports of Fish.—The development of the local fishing industry leaves much to be desired, as is evident from the large imports. For the last five years the imports were as follow:—

## FISH.—IMPORTS, AUSTRALIA.

Classification.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Fresh (oysters) ..	{ cwt.	1,488	1,308	508	3,793	140
	{ £	1,157	958	420	(c) 2,049	(c) 60
Fresh, or preserved by cold process	{ cwt.	75,835	72,866	67,503	43,370	33,277
	{ £	232,894	221,999	206,357	(c) 127,907	(c) 97,364
Potted .. ..	{ cwt.	(a)	(a)	(a)	4,515	4,448
	{ £	148,424	158,797	137,046	(c) 85,959	(c) 84,431
Preserved in tins ..	{ cwt.	209,791	252,379	250,306	117,198	129,275
	{ £	1,141,493	1,265,510	1,342,016	(c) 565,594	(c) 563,789
Smoked, dried, and n.e.i.	{ cwt.	13,837	14,007	13,280	9,702	5,345
	{ £	51,723	48,430	46,556	(c) 30,643	(c) 18,485
Total .. ..	{ cwt.	(b) 300,951	(b) 340,560	(b) 331,597	178,578	172,485
	{ £	1,575,691	1,695,694	1,732,395	(c) 812,152	(c) 764,129

(a) Not available.

(b) Exclusive of potted fish.

(c) Australian currency values.

Tinned fish constitutes by far the largest proportion of the imports, most of it consisting of salmon from Canada, the United States of America, Norway, and the United Kingdom. The potted fish comes chiefly from the United Kingdom, which also supplied a proportion of the fresh fish imported in 1931-32; the bulk of the remainder coming from New Zealand and the Union of South Africa. The small import of oysters is supplied by New Zealand.

2. Exports of Fish.—The exports of fish are comparatively insignificant. During the year 1931-32, they amounted to 1,152 cwt. valued at £5,233, and during the previous five years the average annual exports were—704 cwt. for £5,188.

3. Exports of Pearl and Other Shell.—The exports of pearl, tortoise, and trochus-shell, of Australian origin, are given hereunder for the five years 1927-28 to 1931-32 :—

PEARL, TORTOISE, AND TROCHUS-SHELL.—EXPORTS, AUSTRALIA.

Article.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Pearl-shell	cwt.	44,119	45,058	58,503	48,353	26,779
	£	337,469	339,016	450,615	354,992	194,351
Tortoise-shell	lb.	4,506	4,311	1,541	2,160	1,949
	£	2,894	3,113	693	921	1,112
Trochus-shell	cwt.	21,968	18,814	11,184	14,056	10,228
	£	76,116	71,714	44,515	44,682	32,532

The bulk of the pearl-shell exported during 1931-32 was consigned to the United States of America and the United Kingdom, the respective values of the shipments amounting to £161,397 and £31,978, while trochus-shell to the value of £32,357 was dispatched to Japan.

§ 4. The Commonwealth Department of Fisheries.

In 1907 the Commonwealth Government decided to demonstrate what might be attained commercially by the application of modern methods in fishery. A Federal Investigation Ship, the *Endeavour*, was constructed specially for the work, and a Director of Fisheries was appointed. Experimental cruises were undertaken, which showed that Australia possesses an asset of considerable value in her sea fisheries. The *Endeavour* was unfortunately lost at sea with all on board at the end of 1914. A description of the trawling grounds discovered, data regarding oceanography to the east of Australia, and a list of the publications of the Department will be found on pp. 333 to 335 of Year Book No. 14.

In accordance with the recommendations of the Australian Fisheries Conference of 1927-29 the Commonwealth Government has decided to continue investigations, and as already stated, financial provision is being made in the Estimates of 1933-34.

§ 5. Trawling in Australian Waters.

The State Trawling Industry was established in New South Wales in 1915, and fishing operations were conducted with seven steel steam trawlers. The catches were landed at Sydney and Newcastle, and the fish distributed through retail shops, of which there were fourteen in the metropolitan area, one in Newcastle, and five in country towns. Early in the year 1923 the Government discontinued trawling operations, as the venture was not a commercial success. The operations of the trawlers, however, revealed some of the richest trawling areas in the world, and these localities are being successfully exploited by private enterprise.

## CHAPTER XXII.

### MANUFACTURING INDUSTRY.

[NOTE.]—In all tables relating to employees—except where specially mentioned—“Number of Employees” includes working proprietors.

#### § 1. Number and Classification of Factories.

1. **Number of Factories in each State.**—The following table gives the number of factories in each State for the years specified.

##### FACTORIES.—NUMBER IN EACH STATE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1927-28 ..	8,362	8,245	2,118	1,860	1,398	792	22,775
1928-29 ..	8,465	8,197	2,156	1,844	1,469	785	22,916
1929-30 ..	8,208	8,195	2,172	1,814	1,466	845	22,700
1930-31 ..	7,544	8,199	2,104	1,644	1,455	805	21,751
1931-32 ..	7,397	8,204	2,013	1,662	1,490	891	21,657

2. **Classification of Factories, Australia.**—The next table shows the number of factories in Australia for the years specified, classified in the industrial groups agreed upon by the Conference of Statisticians in 1930. This classification superseded the grouping which had been used since 1902. The definition of a factory adopted at the Conference of Statisticians in 1902 is, however, still used, viz., “Any factory, workshop or mill where four or more persons are employed or power is used.” Details in regard to some of the principal industries included in the table will be found in § 9 hereinafter.

##### FACTORIES.—CLASSIFICATION, AUSTRALIA.

Class of Industry.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
I. Treatment of Non-metalliferous Mine and Quarry Products .. .. .	376	362	374	361	349
II. Bricks, Pottery, Glass, &c. .. .. .	537	530	520	368	313
III. Chemicals, Dyes, Explosives, Paint, Oils, and Grease .. .. .	505	495	493	515	544
IV. Industrial Metals, Machines, Implements, and Conveyances .. .. .	5,345	5,452	5,469	5,362	5,376
V. Precious Metals, Jewellery and Plate .. .. .	264	273	264	242	240
VI. Textiles and Textile Goods .. .. .	542	546	557	520	515
VII. Skins and Leather .. .. .	466	444	451	460	485
VIII. Clothing .. .. .	4,278	4,337	4,186	3,915	3,822
IX. Food, Drink and Tobacco .. .. .	4,289	4,304	4,274	4,251	4,344
X. Woodworking and Basketware .. .. .	2,514	2,508	2,444	2,144	2,077
XI. Furniture, Bedding, &c. .. .. .	1,169	1,139	1,071	954	910
XII. Paper, Stationery, Printing, Bookbinding, &c. .. .. .	1,556	1,562	1,592	1,601	1,611
XIII. Rubber .. .. .	201	219	245	267	279
XIV. Musical Instruments .. .. .	55	56	54	46	41
XV. Miscellaneous Products .. .. .	234	249	256	274	285
XVI. Heat, Light and Power .. .. .	444	440	450	471	466
Total .. .. .	22,775	22,916	22,700	21,751	21,657

Despite the stimulus of high tariff protection the number of factories has declined each year since 1928-29. This result has been brought about through the elimination of some of the weaker enterprises on account of the depression. Allowance must also be made for a certain amount of amalgamation which has taken place during the period.

CLASSIFICATION OF FACTORIES ACCORDING TO NUMBER OF EMPLOYEES. 649

3. Classification of Factories, States, 1931-32.—The following table shows the number of factories in each State in 1931-32, classified according to the nature of the industry :—

FACTORIES.—CLASSIFICATION, STATES, 1931-32.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
	No.	No.	No.	No.	No.	No.	No.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	119	138	25	28	24	15	349
II. Bricks, Pottery, Glass, &c. ..	131	92	25	23	30	12	313
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	230	197	23	47	26	21	544
IV. Industrial Metals, Machines, Im- plements and Conveyances ..	1,956	2,101	349	400	408	162	5,376
V. Precious Metals, Jewellery and Plate ..	70	115	18	17	12	8	240
VI. Textiles and Textile Goods ..	128	302	34	28	13	10	515
VII. Skins and Leather ..	181	207	42	24	23	8	485
VIII. Clothing ..	1,373	1,736	210	251	192	60	3,822
IX. Food, Drink and Tobacco ..	1,280	1,367	670	460	330	237	4,344
X. Woodworking and Basketware ..	660	595	294	117	149	262	2,077
XI. Furniture, Bedding, &c. ..	287	351	84	65	72	51	910
XII. Paper, Stationery, Printing, Book- binding, &c. ..	607	625	146	110	100	23	1,611
XIII. Rubber ..	92	115	8	29	24	11	279
XIV. Musical Instruments ..	15	16	1	4	5	..	41
XV. Miscellaneous Products ..	102	125	26	12	17	3	285
XVI. Heat, Light, and Power ..	166	122	58	47	65	8	466
Total .. ..	7,397	8,204	2,013	1,662	1,490	891	21,657

§ 2. Classification of Factories according to Number of Employees.

1. States, 1931-32.—The following table shows, for each State, the number of factories classified according to the number of hands employed in 1931-32 :—

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1931-32.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF FACTORIES.							
Under 4 ..	2,877	3,370	521	490	758	318	8,334
4 ..	684	717	218	197	106	111	2,033
5 to 10 ..	1,841	1,968	626	540	347	318	5,640
11 to 20 ..	870	927	288	202	134	79	2,500
21 to 50 ..	692	768	214	152	105	42	1,973
51 to 100 ..	228	239	66	58	29	10	630
Over 100 ..	205	215	80	23	11	13	547
Total .. ..	7,397	8,204	2,013	1,662	1,490	891	21,657

Since 1921-22, the number of factories employing under four hands has increased from 3,447 to 8,334. This increase, which has been fairly consistent throughout the decade, might arise from the creation of new establishments or from the introduction of electric or other power into establishments formerly on a manual basis, which would thereby become technically factories. In 1921-22 these factories represented 19.1 per cent. of all factories and employed 2.0 of all factory employees, and in 1931-32 they represented 38.5 of the factories and employed 4.5 per cent. of the hands. The factories employing four hands increased in numbers but fell in proportion from 9.9 per cent. to 9.4 per cent. of the total, and the number of hands employed in these factories increased both actually and relatively during the decade. All groups from five hands

upwards have declined both in numbers and in regard to hands employed relatively as well as actually. The average number of employees over all factories was 21.9 in 1921-22 but had fallen to 16.2 per cent. in 1931-32. If the factories employing under four hands were omitted, the average number of employees per factory would be respectively 26.6 in 1921-22 and 25.1 in 1931-32.

The numbers of persons employed in the several groups of factories are shown in the following table.

The relative importance of large and small factories is more conclusively illustrated by a classification of hands employed according to the size of factory in which they work.

**FACTORIES.—CLASSIFICATION OF EMPLOYEES, ACCORDING TO SIZE OF FACTORY, 1931-32—continued.**

No. of Persons Employed in Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>AVERAGE NUMBER OF HANDS EMPLOYED.</b>							
Under 4 ..	5,523	5,862	1,114	1,031	1,361	684	15,575
4 ..	2,736	2,868	872	788	424	444	8,132
5 to 10 ..	12,531	13,368	4,270	3,636	2,338	2,145	38,288
11 to 20 ..	12,738	13,664	4,178	3,020	1,917	1,173	36,690
21 to 50 ..	21,689	23,807	6,730	4,892	3,391	1,437	61,946
51 to 100 ..	15,780	16,637	4,624	3,928	2,080	646	43,695
Over 100 ..	61,253	54,338	16,537	7,239	2,716	3,803	145,886
<b>Total ..</b>	<b>132,250</b>	<b>130,544</b>	<b>38,325</b>	<b>24,534</b>	<b>14,227</b>	<b>10,332</b>	<b>350,212</b>

2. Australia, 1927-28 to 1931-32.—The percentage of employees in factories with more than 100 hands on the total for all factories, increased up to the year 1926-27, but declined to 41.66 per cent. in 1931-32.

**FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, AUSTRALIA.**

Year.	Establishments Employing on the Average—							
	20 hands and under.		21 to 100 hands.		101 hands and upwards.		Total.	
	Es-tablish-ments.	Em-ployees.	Es-tablish-ments.	Em-ployees.	Es-tablish-ments.	Em-ployees.	Es-tablish-ments.	Em-ployees.
1927-28—								
Number ..	18,502	116,930	3,566	148,901	707	198,365	22,775	464,196
Average per establishment ..	..	6.32	..	41.76	..	280.57	..	20.38
Percentage on total ..	81.24	25.19	15.66	32.08	3.10	42.73	100.00	100.00
1928-29—								
Number ..	18,714	115,457	3,477	144,127	725	201,607	22,916	461,191
Average per establishment ..	..	6.17	..	41.45	..	278.08	..	20.13
Percentage on total ..	81.66	25.03	15.17	31.25	3.17	43.72	100.00	100.00
1929-30—								
Number ..	18,688	110,704	3,338	136,457	674	183,386	22,700	430,547
Average per establishment ..	..	5.92	..	40.88	..	272.09	..	18.97
Percentage on total ..	82.33	25.71	14.70	31.69	2.97	42.60	100.00	100.00
1930-31—								
Number ..	18,562	103,077	2,645	106,678	544	144,271	21,751	354,026
Average per establishment ..	..	5.55	..	40.33	..	265.20	..	16.28
Percentage on total ..	85.34	29.12	12.16	30.13	2.50	40.75	100.00	100.00
1931-32—								
Number ..	18,507	98,685	2,603	105,641	547	145,886	21,657	350,212
Average per establishment ..	..	5.33	..	40.58	..	266.70	..	16.17
Percentage on total ..	85.45	28.18	12.02	30.16	2.53	41.66	100.00	100.00

## § 3. Power used in Factories.

1. States, 1931-32.—The following table shows the number of factories using steam, gas, oil, electricity, or water power, and the horse-power used in 1931-32 :—

## FACTORIES.—HORSE-POWER USED, 1931-32.

State.	Number of Establishments.			Horse-power Used.					
	Using Power.	Others.	Total.	Steam.	Gas.	Oil.	Electricity.	Water.	Total.
	No.	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
N.S.W. ..	7,039	358	7,397	420,500	11,075	43,071	260,864	28,578	764,088
Victoria ..	7,617	587	8,204	203,901	8,937	14,234	158,279	31,433	416,784
Queensland ..	1,726	287	2,013	174,911	12,188	17,640	42,179	307	247,225
S. Australia ..	1,539	123	1,662	114,339	5,047	11,094	43,417	..	173,897
W. Australia ..	1,375	115	1,490	58,905	4,396	14,362	26,487	2	104,152
Tasmania ..	839	52	891	4,324	63	1,705	59,586	80,055	145,733
Australia ..	20,135	1,522	21,657	976,880	41,706	102,106	590,812	140,375	1,851,879

Factories in Australia include electric light and power works. Most of the power in these works is, however, used in generating electric power and light, and the power so produced is counted again under the heading of electricity. The actual amount of duplication cannot be given for all States, but a fair measure of the amount of power used in factories (in the common sense) is given by deducting the total of Class XVI., Heat, Light and Power, from the gross total for all factories. This is done in the last column of the table below. It must not be inferred, however, that the whole of the deduction is a duplication, as portion of it represents the production of light for general purposes, while an appreciable amount of power is used on farms and in private houses.

2. Australia, 1927-28 to 1931-32.—The following table shows the horse-power used in connexion with factories in Australia in each of the last five years :—

## FACTORIES.—HORSE-POWER USED, AUSTRALIA.

Year.	Number of Establishments.			Horse-power Used.					
	Using Power.	Others.	Steam.	Gas.	Oil.	Electricity.	Water.	Total (a).	
	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	Gross.	Less Heat Light and Power Works.
1927-28 ..	19,926	2,849	879,082	52,351	43,133	507,163	74,580	1,556,309	730,454
1928-29 ..	20,304	2,612	932,483	49,781	50,197	537,670	109,183	1,679,314	753,991
1929-30 ..	20,456	2,244	1,101,741	43,695	60,629	568,289	114,828	1,889,182	769,576
1930-31 ..	19,976	1,775	1,003,382	41,415	69,774	597,984	115,862	1,828,417	745,689
1931-32 ..	20,135	1,522	976,880	41,706	102,106	590,812	140,375	1,851,879	809,703

(a) See preceding paragraph.

The last column of the above table, which may be called roughly the net power used in factories, shows an average increase of about 16,000 horse-power per annum or rather over 2 per cent. per annum for the last five years. The net horse-power per employe increased from 1.4 in 1924-25 to 1.6 in 1928-29, but the decline in persons employed in 1931-32 raised the proportion to 2.40 horse-power per employe in that year. The corresponding figure for the United States of America was 4.5.



3. **Classes of Industry.**—The next table shows the horse-power used in factories in each State during the year 1931–32. On account of the adoption of the new classification of factories referred to in § 1.3 *ante*, comparable figures for previous years are not readily available.

**FACTORIES.—HORSE-POWER USED IN EACH CLASS, 1931–32.**

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	22,237	23,195	2,704	2,470	2,110	5,846	58,562
II. Bricks, Pottery, Glass, &c. ..	8,778	9,069	1,840	1,242	1,642	543	23,114
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	10,556	10,825	1,551	5,225	2,431	537	31,125
IV. Industrial Metals, Machines, Implements and Conveyances ..	138,099	36,767	11,453	14,269	8,594	41,236	250,418
V. Precious Metals, Jewellery and Plate ..	525	915	58	140	19	24	1,681
VI. Textiles and Textile Goods ..	13,370	22,198	2,767	2,023	544	2,292	43,194
VII. Skins and Leather ..	5,890	5,978	725	347	618	138	13,696
VIII. Clothing ..	5,210	8,427	811	718	605	133	15,904
IX. Food, Drink and Tobacco ..	72,123	52,534	67,201	15,549	11,860	5,254	224,521
X. Woodworking and Basket-ware ..	20,140	15,199	11,017	4,317	6,974	4,699	62,346
XI. Furniture, Bedding, etc. ..	4,712	4,166	1,711	1,742	1,060	574	13,965
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	12,717	14,805	3,302	1,717	1,819	483	34,843
XIII. Rubber ..	14,402	12,825	476	106	82	3,727	31,618
XIV. Musical Instruments ..	1,639	372	5	96	9	..	2,121
XV. Miscellaneous Products ..	1,048	1,048	77	206	138	78	2,595
Total less Class XVI. ..	331,446	218,323	105,698	50,167	38,505	65,564	809,703
XVI. Heat, Light and Power ..	432,642	198,461	141,527	123,730	65,647	80,169	1,042,176
Grand Total ..	764,088	416,784	247,225	173,897	104,152	145,733	1,851,879

**§ 4. Employment in Factories.**

1. **Total Number Employed.**—Each person employed in and about a factory is counted as a factory employee, and the figures relating to employment include, therefore, proprietors who work in their own business as well as "outworkers" (see subsection 5 (ii) hereinafter). Employment has been classified as follows:—(i) Working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) engine-drivers and fremen; (v) skilled and unskilled workers in the factories, mills, or workshops; (vi) carters and messengers; and (vii) others.

Commencing with the year 1928–29 the number of persons employed has been computed in accordance with a resolution of the Conference of Statisticians held in 1928, and the figures refer to the average number of persons employed over the whole year rather than the average over the period worked. Employment figures for the years prior to 1928–29 have been recomputed on this basis for purposes of comparison. The tables relating to Classification of Factories according to the Number of Employees (see § 2 *ante*) are, however, on the old basis. In all other tables relating to employment, average salaries and wages paid, output per employee, etc., the factor used is the average obtained in accordance with the above-mentioned resolution.

The following table shows, for each year from 1927-28 to 1931-32 inclusive, (a) the average numbers of persons (including both sexes and all ages) employed in manufacturing industries in each State, (b) the percentage of the numbers employed in each State on the total numbers employed in Australia; and (c) the numbers employed per ten thousand of the mean population in each State and Australia :—

## FACTORIES.—EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
AVERAGE NUMBER.							
1927-28 ..	178,094	156,348	44,711	39,044	20,420	11,111	449,728
1928-29 ..	180,806	156,568	45,931	36,807	20,804	10,466	450,482
1929-30 ..	162,913	151,009	42,624	32,185	19,643	10,820	419,194
1930-31 ..	127,591	126,016	37,901	23,886	14,620	8,829	338,843
1931-32 ..	126,368	128,265	35,799	23,834	13,392	9,000	336,658

## PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
1927-28 ..	39.60	34.76	9.95	8.68	4.54	2.47	100.00
1928-29 ..	40.14	34.76	9.99	8.17	4.62	2.32	100.00
1929-30 ..	38.86	36.02	10.17	7.68	4.69	2.58	100.00
1930-31 ..	37.65	37.19	11.19	7.05	4.31	2.61	100.00
1931-32 ..	37.54	38.10	10.63	7.08	3.98	2.67	100.00

## PER 10,000 OF POPULATION.

1927-28 ..	727	888	486	673	498	485	711
1928-29 ..	729	880	484	635	495	476	703
1929-30 ..	658	850	458	555	471	494	654
1930-31 ..	510	704	400	410	348	400	523
1931-32 ..	502	711	371	407	318	403	516

2. Rates of Increase, 1927-28 to 1931-32.—The percentage of increase or decrease on the average number of persons employed in the preceding year is shown below for each of the years specified.

## FACTORY EMPLOYEES.—PERCENTAGE OF INCREASE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	%	%	%	%	%	%	%
1927-28 ..	-7.08	-7.93	1.33	-4.94	5.24	4.60	-5.43
1928-29 ..	1.52	0.14	0.72	-5.73	1.88	-5.81	0.17
1929-30 ..	-9.90	-3.55	-5.35	-12.56	-5.58	3.38	-6.95
1930-31 ..	-21.70	-16.56	-11.08	-25.76	-25.57	-18.40	-19.20
1931-32 ..	-0.96	1.78	-5.55	-0.22	-8.40	1.94	-0.64

NOTE.—The minus sign indicates decrease.

3. Employees in Classes of Industry, Australia, 1927-28 to 1931-32.—The table hereunder gives the average numbers of persons employed in factories under each group in Australia in the years 1927-28 to 1931-32 inclusive :—

**FACTORY EMPLOYEES.—CLASSES, AUSTRALIA.**

Class of Industry.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
I. Treatment of non-metalliferous mine and quarry products ..	8,055	7,692	6,889	4,536	3,885
II. Bricks, pottery, glass, etc. ..	13,738	12,990	11,085	5,684	5,200
III. Chemicals, dyes, explosives, paint, oils and grease ..	13,662	14,079	13,364	11,784	12,058
IV. Industrial metals, machines, implements and conveyances ..	127,706	130,321	116,869	89,506	82,688
V. Precious metals, jewellery and plate ..	2,180	2,191	2,073	1,701	1,670
VI. Textiles and textile goods ..	26,536	28,117	29,383	26,228	30,553
VII. Skins and leather ..	8,263	7,879	7,663	6,583	7,846
VIII. Clothing ..	80,950	81,770	74,002	60,069	61,864
IX. Food, drink and tobacco ..	69,968	68,617	67,189	62,294	62,455
X. Woodworking and basketware ..	30,241	26,775	24,169	15,628	14,319
XI. Furniture, bedding, etc. ..	14,110	13,852	11,899	7,770	7,249
XII. Paper, stationery, printing, book-binding etc. ..	32,948	33,837	33,095	29,441	29,052
XIII. Rubber ..	7,187	7,223	6,804	4,592	5,051
XIV. Musical instruments ..	1,713	1,895	1,658	1,067	800
XV. Miscellaneous products ..	2,629	2,920	3,172	3,388	3,827
XVI. Heat, light and power ..	9,842	10,324	9,880	8,567	8,141
<b>Total .. ..</b>	<b>449,728</b>	<b>450,482</b>	<b>419,194</b>	<b>338,843</b>	<b>336,658</b>

\* The number employed in factories, after being almost constant for the three years ending 1928-29, thereafter declined. In 1929-30, the decrease amounted to 31,288, or 7 per cent.; in 1930-31 to 80,351 or 19 per cent.; and in 1931-32 to 2,185 or 0.6 per cent. The only other decline in numbers recorded prior to the present depression was in the war years, when there was a decrease of 6 per cent. spread over three years.

Detailed examination of the returns for the years 1931-32 and 1927-28 reveals that the decline in employment was more severe in the industries connected with building, i.e., Class II. Bricks, etc., Class X. Woodworking, and Class XI. Furniture, Bedding, etc.—where the employment declined approximately 54 per cent. Those least affected were connected with Food, Drink, etc., Chemicals, Dyes, etc., and Skins and Leather. Class VI. Textile and Textile Goods showed a considerable improvement, the increase in employment in 1931-32 over 1927-28 being 4,000 or 15 per cent. Class XV. also showed a slight advance.

4. Employees in Classes of Industry, States, 1931-32.—The following table gives a classification of employees in manufacturing industries in each State in 1931-32 :—

**FACTORY EMPLOYEES.—CLASSES, STATES, 1931-32.**

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
I. Treatment of non-metalliferous mine and quarry products ..	1,638	1,317	312	221	199	198	3,885
II. Bricks, pottery, glass, etc. ..	2,391	1,781	350	283	306	89	5,200
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,134	4,855	341	1,133	469	126	12,058
IV. Industrial metals, machines, implements and conveyances ..	38,978	24,250	6,365	7,595	3,404	2,096	82,688
V. Precious metals, jewellery and plate ..	476	936	89	105	41	23	1,670
VI. Textiles and textile goods ..	9,988	17,176	882	693	351	1,463	30,553
VII. Skins and leather ..	3,277	3,272	600	416	221	60	7,846
VIII. Clothing ..	19,679	31,511	4,682	3,267	2,129	596	61,864
IX. Food, drink, and tobacco ..	20,059	20,095	12,895	4,762	2,764	1,880	62,455
X. Woodworking and basketware ..	3,839	4,288	3,114	1,026	1,119	933	14,319
XI. Furniture, bedding, etc. ..	2,527	2,520	992	569	381	260	7,249
XII. Paper, stationery, printing, bookbinding, etc. ..	11,334	10,526	3,378	1,792	1,283	739	29,052
XIII. Rubber ..	1,786	2,340	495	142	79	209	5,051
XIV. Musical instruments ..	540	205	7	27	21	..	800
XV. Miscellaneous products ..	1,765	1,262	250	231	152	167	3,827
XVI. Heat, light and power ..	2,957	1,931	1,047	1,572	473	161	8,141
<b>Total .. ..</b>	<b>126,368</b>	<b>128,265</b>	<b>35,799</b>	<b>23,834</b>	<b>13,392</b>	<b>9,000</b>	<b>336,658</b>

The decline in employment compared with 1930-31 for Australia as a whole amounted to 0.6 per cent. Western Australia showed a loss of 8 per cent.; Queensland, 6 per cent.; New South Wales, 1 per cent.; South Australia, 0.2 per cent.; while Victoria and Tasmania each showed an improvement of 2 per cent.

5. *Employees According to Nature of Employment.*—(i) *General.* In the following table the average numbers of persons employed in each State in 1931-32 are classified according to the nature of their employment :—

## FACTORY EMPLOYEES.—NATURE OF EMPLOYMENT, 1931-32.

State.	Average Number of Persons Employed.						Total.
	Working Pro-prietors.	Managers and Overseers.	Accountants and Clerks.	Engine-drivers and Firemen.	Workers, Skilled & Unskilled. (a)	Carters, Messengers and Others.	
New South Wales ..	5,781	5,404	8,215	1,994	103,241	1,733	126,368
Victoria ..	6,791	5,118	5,976	1,555	107,465	1,360	128,265
Queensland ..	1,525	1,594	2,453	1,629	26,136	2,462	35,799
South Australia ..	1,291	1,169	1,821	418	18,552	583	23,834
Western Australia	850	676	895	369	10,206	396	13,392
Tasmania ..	508	500	666	165	6,902	259	9,000
Australia ..	16,746	14,461	20,026	6,130	272,502	6,793	336,658

(a) Including Outworkers.

(ii) *Outworkers.* The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and technically embraces only those to whom work is given out by factory owners to be done in the employees' own homes. Individuals working for themselves are not included. The following table gives particulars of the average number of outworkers connected with factories in each State in each of the past five years.

## FACTORIES.—OUTWORKERS.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1927-1928 ..	333	380	40	51	5	67	876
1928-1929 ..	288	240	44	41	2	22	637
1929-1930 ..	217	182	49	28	2	31	509
1930-1931 ..	122	136	29	15	3	23	328
1931-1932 ..	108	140	27	12	3	2	292

(a) In all tables relating to number of hands employed in factories, outworkers are included.

The Factories Acts in each State contain provisions regulating the employment of outworkers. Records of outwork, specifying the names and remuneration of workers, and stating the places where the work is done, must be kept by factory proprietors. Fuller information regarding the operation of the Factories Acts will be found in Official Year Book No. 16, pp. 540 to 566.

### § 5. Sex Distribution in Factories.

1. **Employment of Females.**—In all the States the employment of female labour in factories is regulated by Acts of Parliament. More extended reference to this matter will be found in Official Year Book No. 16, pp. 540 to 566.

2. **Distribution of Employees according to Sex.**—(i) *General.* In New South Wales the ratio of the number of females employed in factories to the number of males during 1886 was about one to seven; in 1891 one to six; in 1903 it became about one to four; and is now less than one to three. In Victoria the ratio of females to males during the year 1886 was about one to five. Five years later (1891) it was somewhat less, but in 1896 had increased to about one to three, and at present is more than one to two. In the remaining States the ratio was roughly one female employed to every five males, while that for Australia as a whole was two to five. The employment of women is, however, mainly confined to a few trades.

The increased proportion of females in factories during the last five years is due to the fact that those factories in which females are employed in relatively large numbers have been affected less as regards the number of employees than other industries have been by the industrial depression. The industries which employ the largest proportions of females are Classes VI., VIII., IX. and XII., and the numbers engaged in these classes, taken together, have fallen by 12.6 per cent. between 1927-28 and 1931-32, whereas the numbers engaged in all other industries, employing smaller proportions of females, declined during the same time by 36.2 per cent.

(ii) *Average Number of Males and Females Employed, 1927-28 to 1931-32.* The next table shows the average number of male and female employees in factories in each State for the five years ending 1931-32.

#### FACTORIES.—MALES AND FEMALES EMPLOYED.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
MALES.					
New South Wales .. ..	134,488	135,813	122,006	93,868	90,682
Victoria .. ..	105,366	104,648	100,135	82,949	81,618
Queensland .. ..	37,381	37,107	35,141	31,144	29,149
South Australia .. ..	32,214	30,385	26,485	19,332	18,932
Western Australia .. ..	16,710	16,993	15,921	11,729	10,535
Tasmania .. ..	8,730	8,164	8,547	6,922	6,999
<b>Australia .. ..</b>	<b>334,889</b>	<b>333,110</b>	<b>308,235</b>	<b>245,944</b>	<b>237,915</b>
FEMALES.					
New South Wales .. ..	43,606	44,993	40,907	33,723	35,686
Victoria .. ..	50,982	51,920	50,874	43,067	46,647
Queensland .. ..	7,330	7,924	7,483	6,757	6,650
South Australia .. ..	6,830	6,422	5,700	4,554	4,902
Western Australia .. ..	3,710	3,811	3,722	2,891	2,857
Tasmania .. ..	2,381	2,302	2,273	1,907	2,001
<b>Australia .. ..</b>	<b>114,839</b>	<b>117,372</b>	<b>110,959</b>	<b>92,899</b>	<b>98,743</b>

The maximum number of employees in factories was reached in 1926-27 when 452,184 persons were employed, of whom 337,433 were males, and 114,751 were females. Since that year there has been a decrease, amounting in 1931-32 to 99,518 or 29.49 per cent. in the case of males, and to 16,008 or 13.95 per cent. in respect of females.

3. **Rate of Variation for each Sex.**—The percentages of annual increase or decrease in the years indicated on the average number of males and females employed in factories are shown below :—

**PERCENTAGES OF ANNUAL INCREASE, MALE AND FEMALE FACTORY EMPLOYEES.**

State.	1926-27— 1927-28.	1927-28— 1928-29.	1928-29— 1929-30.	1929-30— 1930-31.	1930-31— 1931-32.
<b>MALES.</b>					
	%	%	%	%	%
New South Wales .. ..	-0.69	0.99	-10.17	-23.06	- 3.42
Victoria .. ..	-0.83	-0.68	- 4.31	-17.16	- 1.60
Queensland .. ..	0.71	-0.79	- 5.30	-11.37	- 6.41
South Australia .. ..	-5.46	-5.68	-12.84	-27.01	- 2.07
Western Australia .. ..	4.71	1.69	- 6.31	-26.33	-10-18
Tasmania .. ..	1.32	-6.48	4.69	-19.01	1.10
<b>Total .. ..</b>	<b>-0.75</b>	<b>-0.53</b>	<b>- 7.47</b>	<b>-20.21</b>	<b>- 3.26</b>
<b>FEMALES.</b>					
New South Wales .. ..	-0.77	3.18	- 9.08	-17.56	5.82
Victoria .. ..	-0.72	1.84	- 2.01	-15.35	8.31
Queensland .. ..	4.67	8.10	- 5.57	- 9.70	- 1.58
South Australia .. ..	-2.41	-5.97	-11.24	-20.11	7.64
Western Australia .. ..	7.72	2.72	- 2.36	-22.33	- 1.18
Tasmania .. ..	18.69	-3.32	- 1.26	-16.10	4.93
<b>Total .. ..</b>	<b>0.77</b>	<b>2.20</b>	<b>- 5.46</b>	<b>- 16.28</b>	<b>6.29</b>

NOTE.—The minus sign indicates decrease.

4. **Masculinity of Employees in Factories.**—The extent to which females are employed in the factories of Australia may perhaps be more clearly shown by giving the masculinity of employees for each State for a series of years. The following table furnishes particulars for the years specified.

**MASCULINITY(a) OF FACTORY EMPLOYEES.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1927-28 .. ..	308	207	510	472	450	367	292
1928-29 .. ..	302	202	468	473	446	355	284
1929-30 .. ..	298	197	470	465	428	376	278
1930-31 .. ..	278	193	461	425	406	363	265
1931-32 .. ..	254	175	438	386	369	350	241

(a) Number of males per 100 females.

During the five years covered by the table above there has been a decrease in masculinity in all the States. The decline was smallest in Victoria, where the greatest number of females is employed, and in Tasmania. The cause of the increasing proportion of women has been referred to in 2 ante.

5. **Employment of Females in Particular Industries.**—A preponderance of women workers occurs in a few trades, of which the more important are comprised in Classes VI., VIII., IX., and XII., viz., in connexion with textiles, clothing, food, drink and tobacco, and paper, stationery, printing and bookbinding, etc. The following tables show the average number of females employed in each of these classes in 1931-32 and

the percentages of the average number so employed on the total average number of females employed in all classes :—

**FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, AND PERCENTAGES ON AVERAGE TOTAL EMPLOYED, 1931-32.**

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
<b>AVERAGE NUMBER.</b>							
VI. Textiles and textile goods ..	6,174	10,898	402	260	196	961	18,891
VIII. Clothing ..	13,937	22,407	3,412	2,406	1,587	388	44,137
IX. Food and drink ..	6,199	4,995	1,159	813	463	356	13,985
XII. Paper, stationery, &c. ..	3,248	2,900	787	460	302	129	7,826
All other classes ..	6,128	5,447	890	993	309	167	13,904
<b>Total ..</b>	<b>35,686</b>	<b>46,647</b>	<b>6,650</b>	<b>4,902</b>	<b>2,857</b>	<b>2,001</b>	<b>98,743</b>
<b>PERCENTAGES ON AVERAGE TOTAL NUMBER OF FEMALE EMPLOYEES.</b>							
VI. Textiles and textile goods ..	17.30	23.36	6.05	5.30	6.86	48.02	19.13
VIII. Clothing ..	39.05	48.03	51.31	49.08	55.55	19.39	44.70
IX. Food and drink ..	17.37	10.71	17.43	16.59	16.20	17.79	14.16
XII. Paper, stationery, etc. ..	9.10	6.22	11.83	9.38	10.57	6.45	7.93
All other classes ..	17.18	11.68	13.38	19.05	10.82	8.35	14.08
<b>Total ..</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

The largest proportion of females is engaged in one or other of the four classes of industry indicated, Class VIII. being the most important. The classification of the employment of females in the several industries in that class, and the relation of their number to that of the males so employed, are shown in the following table :—

**FEMALES EMPLOYED IN EACH INDUSTRY IN CLASS VIII. 1931-32.**

Industry.	New South Wales.			Victoria.			Other States.		
	Males	Females.	Femi- nity. (a)	Males.	Females.	Femi- nity. (a)	Males.	Females.	Femi- nity. (a)
Tailoring and slop clothing ..	1,377	5,226	380	1,525	4,738	311	1,112	3,492	314
Waterproof and oil-skin clothing ..	9	12	133	69	157	228	..	..	..
Dressmaking ..	27	1,164	4,311	349	5,569	1,596	34	1,480	4,353
Millinery ..	56	782	1,396	129	1,323	1,026	13	421	3,238
Shirts, collars and underclothing ..	236	2,579	1,093	518	4,117	795	105	1,376	1,310
Stays and corsets ..	33	541	1,639	76	548	721	4	21	525
Handkerchiefs, ties and scarves ..	72	494	686	44	339	770	..	..	..
Hats and caps ..	507	996	196	448	810	181	49	61	122
Gloves ..	..	..	..	23	74	322	..	..	..
Boots and shoes ..	2,039	1,822	89	4,658	3,998	86	1,060	723	68
Boot repairing (in- cluding bespoke work) ..	949	23	2.42	552	10	1.81	353	29	8
Boot accessories ..	86	24	28	372	141	38	..	..	..
Umbrellas and walk- ing sticks ..	34	61	179	33	62	188	10	12	120
Dyeworks and clean- ing (including re- novating and repairing) ..	311	185	59	258	200	78	138	171	124
Other ..	6	28	467	50	321	642	3	7	233
<b>Total ..</b>	<b>5,742</b>	<b>13,937</b>	<b>243</b>	<b>9,104</b>	<b>22,407</b>	<b>246</b>	<b>2,881</b>	<b>7,793</b>	<b>270</b>

(a) Number of females per 100 males.

**§ 6. Child Labour in Factories.**

1. **Conditions of Child Labour.**—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. Reference to the legislation regarding the employment of child labour

in factories will be found in Official Year Book No. 16, pp. 540 to 566. The object of the restrictions imposed is to assure amongst other things that a proper period shall be devoted to primary education, and that the early years of toil shall not exhaust the worker before the attainment of full growth.

2. **Average Number of Children Employed, 1927-28 to 1931-32.**—In the returns for the various States, the term "child" is taken to denote any person under sixteen years of age. The following table shows the average number of children of each sex employed in manufacturing industries in the years specified.

## CHILDREN EMPLOYED IN FACTORIES.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
MALES.					
New South Wales .. ..	4,016	3,983	3,322	1,851	1,924
Victoria .. ..	4,231	4,209	3,748	2,543	2,615
Queensland .. ..	1,272	1,254	1,212	950	920
South Australia .. ..	1,073	883	654	411	509
Western Australia .. ..	677	647	575	324	344
Tasmania .. ..	343	290	261	203	185
Australia .. ..	11,612	11,266	9,772	6,282	6,497
FEMALES.					
New South Wales .. ..	4,747	5,085	4,196	2,757	3,263
Victoria .. ..	3,992	4,298	4,019	3,361	4,089
Queensland .. ..	850	921	906	619	631
South Australia .. ..	763	679	529	399	453
Western Australia .. ..	297	276	226	149	161
Tasmania .. ..	304	265	252	205	169
Australia .. ..	10,953	11,524	10,128	7,490	8,766
TOTAL.					
New South Wales .. ..	8,763	9,068	7,518	4,608	5,187
Victoria .. ..	8,223	8,507	7,767	5,904	6,704
Queensland .. ..	2,122	2,175	2,118	1,569	1,551
South Australia .. ..	1,836	1,562	1,183	810	962
Western Australia .. ..	974	923	801	473	505
Tasmania .. ..	647	555	513	408	354
Australia .. ..	22,565	22,790	19,900	13,772	15,263

3. **Percentage of Children on Total Number of Employees.**—The number of juvenile workers in factories reached its maximum in 1926-27 when the number was 23,903 (12,582 males and 11,321 females), representing 5.29 per cent. of all factory employees. In 1931-32 the number of children employed was 15,263 or 4.53 per cent. of all employees. The latter figures show some increase both actually and relatively over the immediately preceding year. This increase was very largely among females in the textile and clothing industry.

## PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF FACTORY EMPLOYEES.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	%	%	%	%	%
New South Wales .. ..	4.92	5.02	4.61	3.61	4.10
Victoria .. ..	5.26	5.43	5.14	4.69	5.23
Queensland .. ..	4.75	4.81	4.97	4.14	4.33
South Australia .. ..	4.70	4.24	3.68	3.39	4.04
Western Australia .. ..	4.77	4.44	4.08	3.24	3.77
Tasmania .. ..	5.82	5.30	4.74	4.62	3.93
Australia .. ..	5.02	5.06	4.75	4.06	4.53



4. Industries Employing Child Labour.—The employment of children is largely confined to a limited number of industries, the most important of which are specified in the next table, which shows the average number employed in 1931–32.

CHILDREN EMPLOYED.—VARIOUS INDUSTRIES, 1931–32.

Class.	Industry.	N.S.W.		Victoria.		Q'land.		S. Aust.		W. Aust.		Tas.		Australia.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
II.	Earthenware, China, Porcelain, and Terra-Cotta	24	..	29	7	1	5	6	..	2	..	..	..	62	12
III.	Chemicals, Drugs and Medicines	45	65	9	28	..	..	7	18	3	..	1	..	65	111
IV.	Smelting, Converting, Refining and Rolling of Iron and Steel	122	2	132	14	16	..	48	10	..	..	..	..	318	26
"	Engineering (not Marine or Electrical)	44	..	61	8	22	..	24	3	9	..	2	..	162	11
"	Electrical Installations, Cables and Apparatus	46	25	55	21	2	..	5	..	3	..	..	..	111	46
"	Motor Vehicles and Cycles. (1) Repairs	39	..	57	..	23	..	17	2	18	1	3	..	157	3
"	Galvanized Ironworking and Tinsmithing	81	19	133	43	19	..	32	..	23	..	2	..	290	62
VI.	Cotton	26	58	9	45	2	..	..	..	..	..	..	..	37	103
"	Wool, Worsted and Shoddy	143	355	301	673	10	31	29	16	1	3	34	76	518	1154
"	Hosiery and Other Knitted Goods	27	296	124	607	3	12	..	5	3	10	..	6	157	936
"	Rope and Cordage	10	14	65	51	5	..	3	..	..	..	..	..	83	65
VII.	Tanning, Currying and Leather Dressing	35	1	75	2	19	..	6	..	9	..	..	..	144	3
"	Bags, Trunks and Other Leather Goods	21	79	20	28	13	11	1	16	4	..	..	..	59	134
VIII.	Tailoring and Slop Clothing	43	354	38	290	31	160	6	16	11	76	1	18	130	914
"	Dressmaking	1	123	13	516	2	48	1	81	..	25	..	8	17	801
"	Millinery	..	78	9	129	..	6	..	37	..	3	..	..	9	253
"	Shirts, Collars and Underclothing	7	415	24	333	3	88	1	40	..	40	..	8	35	924
"	Hats and Caps	21	111	32	39	..	2	..	..	..	2	..	..	53	154
"	Boots and Shoes	118	218	181	370	17	42	21	23	35	6	5	4	377	663
"	Boot Repairing	14	1	19	..	11	3	5	..	3	1	..	..	52	5
IX.	Bakeries (including Cakes and Pastry)	28	5	48	4	29	11	11	2	12	1	36	36	164	59
"	Biscuits	49	106	88	26	2	10	16	32	14	7	..	..	169	181
"	Sugar Confectionery (including Chocolate)	48	225	36	91	12	39	7	16	..	8	..	..	103	379
"	Butter Factories, Creameries, etc.	5	..	32	25	18	1	2	2	1	..	1	..	59	28
"	Condiments, Coffee and Spices	25	51	13	10	..	..	22	3	8	..	..	..	68	64
"	Tobacco, Cigars, Cigarettes and Snuff	..	1	6	10	..	..	..	..	5	7	..	..	11	18
X.	Sawmills (Town and Forest)	16	..	26	..	93	1	6	..	5	..	6	..	152	1
XI.	Billiard Tables, Cabinet and Furniture making and Upholstery	46	7	62	5	32	5	28	..	10	3	5	..	177	20
XII.	Papermaking, etc.	43	147	5	..	..	..	..	..	..	..	..	..	48	147
"	Envelopes, Stationery, Paper Boxes, Bags, etc.	..	..	37	110	17	10	7	18	2	6	..	..	63	144
"	Newspapers and Periodicals	40	1	20	2	83	2	..	..	12	1	11	..	166	6
"	General Printing and Bookbinding (not including Government)	90	73	118	53	34	24	20	10	9	2	4	1	275	163
XIII.	Tyres, Motor and Cycle	19	31	10	18	1	..	5	3	9	..	9	3	53	55

5. Apprenticeship.—In all the States Acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

### § 7. Salaries and Wages Paid and Value of Production.

[NOTE.]—In all tables relating to Salaries and Wages paid in Factories the amounts given are exclusive of sums drawn by working proprietors.

1. *General.*—The importance of the manufacturing industries of Australia is indicated by the fact that the total value of the output for 1931–32 was £281,645,785 of which amount the sum of £161,199,245 represents the value of the materials used, and £9,464,710 the value of the power, fuel and light used. The difference between the sum of the two latter amounts and the value of the output, viz., £110,981,830 represents the value of production as defined by the Conference of Statisticians at Sydney in 1925, i.e., “The value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production.” The total amount of salaries and wages paid in factories in 1931–32 was £55,931,818. This figure shows a decline of £6,523,041, or 10.5 per cent., as compared with the total for the previous year.

2. *Salaries and Wages Paid.*—(i) *Total Amount, 1931–32.* The total amount of salaries and wages paid in the year 1931–32 in various classes of factories in Australia is shown in the following table:—

#### SALARIES AND WAGES PAID IN FACTORIES, 1931–32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	388,793	242,230	52,805	47,255	38,479	38,657	808,219
II. Bricks, Pottery, Glass, etc. ..	439,475	295,546	44,892	35,672	52,785	13,874	873,244
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,032,110	865,768	57,487	212,773	103,197	21,912	2,293,247
IV. Industrial Metals, Machines, Implements and Conveyances ..	7,844,984	4,143,955	1,101,651	1,290,169	634,441	397,739	15,412,939
V. Precious Metals, Jewellery and Plate ..	66,592	135,961	11,423	13,739	5,914	2,450	236,079
VI. Textiles and Textile Goods ..	1,403,436	2,141,503	122,246	88,560	41,981	172,041	3,969,767
VII. Skins and Leather ..	581,335	523,472	83,928	52,222	36,456	7,502	1,284,915
VIII. Clothing ..	2,234,129	3,571,100	463,059	304,911	220,284	57,748	6,851,231
IX. Food, Drink and Tobacco ..	3,975,173	3,694,723	2,586,168	793,421	527,577	328,623	11,905,685
X. Woodworking and Basketware ..	663,833	707,555	464,883	160,197	199,716	120,938	2,317,122
XI. Furniture, Bedding, etc. ..	382,204	314,306	143,131	73,694	53,893	25,848	993,076
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,239,261	1,788,009	713,081	303,749	273,623	131,283	5,449,006
XIII. Rubber ..	350,840	367,603	62,911	16,587	8,557	37,148	843,646
XIV. Musical Instruments ..	119,036	31,268	1,271	3,111	4,099	..	159,385
XV. Miscellaneous Products ..	254,321	181,619	31,207	29,931	20,309	21,760	539,147
XVI. Heat, Light and Power ..	784,491	449,427	248,746	360,065	113,773	38,608	1,995,110
Total ..	22,751,013	19,454,045	6,188,889	3,786,056	2,335,684	1,416,131	55,931,818

(ii) *Totals and Averages, 1927–28 to 1931–32.* The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for the years 1927–28 to 1931–32. The average wage paid is not comparable with that shown in similar tables in Official Year Books issued prior to No. 23, 1930, on account of the change in method of computing the average number of hands employed as explained heretofore. The figures are exclusive of working proprietors and of the amounts drawn by them:—

## SALARIES AND WAGES PAID IN FACTORIES.—TOTAL AND AVERAGE PER ANNUM PER EMPLOYEE.

Year.	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
1927-28	Total amount paid ..	37,818,141	30,030,352	9,140,223	8,164,238	4,210,675	2,001,690	91,365,319
	Average per employee ..	220.75	201.83	212.33	217.34	216.60	189.30	212.12
1928-29	Total amount paid ..	38,544,687	29,466,767	9,097,624	7,609,813	4,373,090	1,894,927	90,986,908
	Average per employee ..	221.371	197.41	209.45	215.11	220.87	189.80	210.63
1929-30	Total amount paid ..	34,875,995	28,387,840	8,690,872	6,579,186	4,154,980	2,028,160	84,717,033
	Average per employee ..	222.67	197.07	211.80	213.62	222.32	195.80	210.97
1930-31	Total amount paid ..	25,200,290	21,359,491	7,098,106	4,368,868	2,886,884	1,541,220	62,454,859
	Average per employee ..	206.83	179.29	195.26	192.67	210.26	183.28	193.88
1931-32	Total amount paid ..	22,751,013	19,454,045	6,188,889	3,786,056	2,335,684	1,416,131	55,931,818
	Average per employee ..	188.67	160.15	180.57	167.95	186.23	166.76	174.84

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VIII., comprising a heavy percentage of women and children. The highest average wages per employee in 1931-32 were paid in New South Wales, and Western Australia. This statement is true of male employees also, but the average wage for female employees is higher in Victoria than in Western Australia (see IV. following).

The increase in rates of salaries and wages reached its maximum in 1927-28 when the average amounted to £212.12, as compared with £210.63 in 1928-29, £210.97 in 1929-30, £193.88 in 1930-31 and £174.84 in 1931-32. The fall in the cost of living on which the rates of wage are chiefly based began in the last quarter of 1929-30, and has since continued, with consequent reductions in the rates of wage. The average salary and wage fell approximately 10 per cent. in 1931-32 as compared with 1930-31 and 18 per cent. as compared with the peak year of 1927-28.

(iii) *Earnings of Males and Females, 1931-32.* The following table shows the approximate amount paid in salaries and wages to males and females in each class of industry in each State in the year 1931-32:—

## SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
MALES.							
I. Treatment of Non-metalliferous Mine and Quarry Products ..	383,363	239,476	51,864	46,885	37,611	38,137	797,336
II. Bricks, Pottery, Glass, etc. ..	416,383	286,557	43,742	35,490	52,062	13,784	848,018
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	864,713	689,189	52,756	197,921	98,620	20,007	1,923,206
IV. Industrial Metals, Machines, Implements and Conveyances ..	7,661,850	4,036,122	1,082,076	1,265,538	626,506	392,163	15,064,255
V. Precious Metals, Jewellery and Plate ..	60,378	124,318	10,865	13,407	5,755	2,450	217,173
VI. Textiles and Textile Goods ..	765,418	1,157,343	90,698	68,089	27,384	92,988	2,201,920
VII. Skins and Leather ..	529,574	476,089	78,385	38,733	32,731	6,940	1,162,452
VIII. Clothing ..	951,641	1,496,214	203,284	114,983	78,116	29,130	2,873,368
IX. Food, Drink and Tobacco ..	3,329,284	3,207,538	2,495,470	734,117	485,567	299,367	10,551,343
X. Woodworking and Basketware ..	649,300	696,680	457,470	156,619	199,030	118,927	2,278,026
XI. Furniture, Bedding, etc. ..	335,175	264,980	134,293	67,944	50,319	24,948	877,659
XII. Paper, Stationery, Printing, Book-binding, etc. ..	1,919,684	1,511,403	636,323	263,785	240,035	117,897	4,689,127
XIII. Rubber ..	304,325	287,457	40,174	15,405	8,199	34,771	690,331
XIV. Musical Instruments ..	103,929	30,237	1,271	2,949	4,699	..	143,085
XV. Miscellaneous Products ..	203,440	153,222	28,503	25,392	16,454	21,274	448,285
XVI. Heat, Light and Power ..	780,512	448,529	244,734	346,381	113,151	38,378	1,971,685
<b>Total ..</b>	<b>19,258,969</b>	<b>15,105,354</b>	<b>5,651,908</b>	<b>3,393,638</b>	<b>2,076,239</b>	<b>1,251,161</b>	<b>46,737,269</b>

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES,  
1931-32—continued.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
I. Treatment of Non-metalliferous Mine and Quarry Products ..	£ 5,430	£ 2,754	£ 941	£ 370	£ 868	£ 520	£ 10,883
II. Bricks, Pottery, Glass, etc. ..	14,092	8,989	1,150	182	723	90	25,226
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	167,397	176,579	4,731	14,852	4,577	1,905	370,041
IV. Industrial Metals, Machines, Implements and Conveyances ..	183,134	107,833	19,575	24,631	7,935	5,576	348,684
V. Precious Metals, Jewellery and Plate ..	6,214	11,643	558	332	159	..	18,906
VI. Textiles and Textile Goods ..	638,018	984,160	31,548	20,471	14,597	79,053	1,767,847
VII. Skins and Leather ..	51,761	47,383	5,543	13,489	3,725	562	122,463
VIII. Clothing ..	1,282,488	2,074,886	259,775	189,928	142,168	28,618	3,977,863
IX. Food, Drink and Tobacco ..	645,889	487,185	90,698	59,304	42,010	29,256	1,354,342
X. Woodworking and Basketware ..	14,533	10,875	7,413	3,578	686	2,011	39,096
XI. Furniture, Bedding, etc. ..	47,029	49,326	8,838	5,750	3,574	900	115,417
XII. Paper, Stationery, Printing, Book-binding, etc. ..	319,577	276,606	76,758	39,964	33,588	13,386	759,879
XIII. Rubber ..	46,515	80,146	22,737	1,182	358	2,377	153,345
XIV. Musical Instruments ..	15,107	1,031	..	162	..	..	16,300
XV. Miscellaneous Products ..	50,881	28,397	2,704	4,539	3,855	486	90,862
XVI. Heat, Light and Power ..	3,979	898	4,012	13,684	622	230	23,425
Total ..	3,492,044	4,348,691	536,981	392,418	259,445	164,970	9,194,549

(iv) Total and Average Earnings of Males and Females, 1927-28 to 1931-32.

Particulars for the last five years are given in the table hereunder :—

## SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
1927-28. Amount paid ..	£ 32,929,659	£ 24,268,920	£ 8,388,158	£ 7,471,581	£ 3,814,908	£ 1,790,152	£ 78,663,378
Per cent. on total ..	87.07	80.81	91.77	91.52	90.60	89.43	86.10
Average per employee ..	£ 257.11	£ 246.31	£ 234.24	£ 242.65	£ 241.80	£ 218.07	£ 248.00
1928-29. Amount paid ..	£ 33,508,975	£ 23,684,594	£ 8,351,045	£ 6,955,931	£ 3,970,744	£ 1,678,420	£ 78,149,709
Per cent. on total ..	86.94	80.38	91.79	91.41	90.80	88.57	85.89
Average per employee ..	£ 258.68	£ 241.51	£ 234.71	£ 239.74	£ 247.57	£ 217.89	£ 247.35
1929-30. Amount paid ..	£ 30,228,967	£ 22,688,606	£ 7,824,824	£ 5,997,151	£ 3,755,353	£ 1,818,960	£ 72,313,861
Per cent. on total ..	86.68	79.92	90.03	91.15	90.38	89.69	85.36
Average per employee ..	£ 260.41	£ 241.87	£ 232.69	£ 238.47	£ 250.17	£ 224.65	£ 247.85
1930-31. Amount paid ..	£ 21,605,432	£ 16,998,124	£ 6,487,633	£ 3,951,464	£ 2,601,295	£ 1,379,849	£ 53,023,797
Per cent. on total ..	85.73	79.58	91.40	90.45	90.11	89.53	84.90
Average per employee ..	£ 244.36	£ 221.68	£ 218.64	£ 217.40	£ 239.04	£ 211.86	£ 230.20
1931-32. Amount paid ..	£ 19,258,969	£ 15,105,354	£ 5,651,908	£ 3,393,638	£ 2,076,239	£ 1,251,161	£ 46,737,269
Per cent. on total ..	84.65	77.65	91.32	89.64	88.89	88.35	83.56
Average per employee ..	£ 225.99	£ 200.27	£ 204.08	£ 191.61	£ 213.43	£ 192.28	£ 210.26

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES—  
*continued.*

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
1927-28. Amount paid .. £	4,888,482	5,761,432	752,065	692,657	395,767	211,538	12,701,941
Per cent. on total ..	12.93	19.19	8.23	8.48	9.40	10.57	13.90
Average per employee £	113.06	114.64	103.92	102.27	108.04	89.45	111.88
1928-29. Amount paid .. £	5,035,712	5,782,173	746,579	653,882	402,346	216,507	12,837,199
Per cent. on total ..	13.06	19.62	8.21	8.59	9.20	11.43	14.11
Average per employee £	112.96	112.94	95.05	102.78	107.01	94.92	110.63
1929-30. Amount paid .. £	4,647,028	5,699,234	866,048	582,035	399,627	209,200	12,403,172
Per cent. on total ..	13.32	20.08	9.97	8.85	9.62	10.31	14.64
Average per employee £	114.61	113.44	116.92	103.02	108.65	92.53	112.98
1930-31. Amount paid .. £	3,594,858	4,361,367	610,473	417,404	285,589	161,371	9,431,062
Per cent. on total ..	14.27	20.42	8.60	9.55	9.89	10.47	15.10
Average per employee £	107.56	102.73	91.40	92.78	100.28	85.11	102.74
1931-32. Amount paid .. £	3,492,044	4,348,691	536,981	392,418	259,445	164,970	9,194,549
Per cent. on total ..	15.35	22.35	8.68	10.36	11.11	11.65	16.44
Average per employee £	98.74	94.43	81.61	81.21	92.20	83.11	94.18

(v) *Managers, Overseers, and Other Employees.* A further analysis of salaries and wages paid is given in the following table, the amounts paid to managers, overseers, etc., being differentiated from those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases.

SALARIES AND WAGES.—MANAGERS, OVERSEERS, AND OTHER FACTORY  
EMPLOYEES, AUSTRALIA, 1931-32.

Class of Industry.	Salaries and Wages Paid to—						
	Managers, Overseers, Accountants, and Clerks.		All Other Employees.		All Employees.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	157,640	9,598	639,696	1,285	797,336	10,883	808,219
II. Bricks, pottery, glass, etc. ..	171,664	11,991	676,354	13,235	848,018	25,226	873,244
III. Chemicals, dyes, explosives, paint, oils and grease ..	514,079	88,532	1,409,127	281,509	1,923,206	370,041	2,293,247
IV. Industrial metals, machines, implements and conveyances ..	2,267,886	189,525	12,796,369	159,159	15,064,255	348,684	15,412,939
V. Precious metals, jewellery and plate ..	26,711	5,530	190,462	13,376	217,173	18,906	236,079
VI. Textiles and textile goods ..	463,942	97,160	1,737,978	1,670,687	2,201,920	1,767,847	3,969,767
VII. Skins and leather ..	159,980	16,915	1,002,472	105,548	1,162,452	122,463	1,284,915
VIII. Clothing ..	460,579	261,020	2,412,789	3,716,843	2,873,368	3,977,863	6,851,231
IX. Food, drink and tobacco ..	2,175,179	292,861	8,376,164	1,061,481	10,551,343	1,354,342	11,905,685
X. Woodworking and basketware ..	370,198	30,086	1,907,828	9,010	2,278,026	39,096	2,317,122
XI. Furniture, bedding, etc. ..	120,087	24,329	757,572	91,088	877,659	115,417	993,076
XII. Paper, stationery, printing and book-binding, etc. ..	942,377	183,725	3,746,750	576,154	4,689,127	759,879	5,449,006
XIII. Rubber ..	153,087	17,251	537,244	136,064	690,331	153,315	843,646
XIV. Musical instruments ..	38,649	8,979	104,436	7,321	143,085	16,300	159,385
XV. Miscellaneous products ..	85,351	18,865	362,934	71,997	448,285	90,862	539,147
XVI. Heat, light and power ..	470,158	22,379	1,501,527	1,046	1,971,685	23,425	1,995,110
Total ..	8,577,567	1,278,746	38,159,702	7,915,803	46,737,269	9,194,549	55,931,818
Average paid per employee	346.96	130.95	193.15	90.09	210.26	94.18	174.84

3. Value of Power, Fuel and Light Used.—(i) *Total Amount, 1931-32.* The expenditure by factories on power, fuel and light is of considerable importance; in 1931-32 it amounted to £9,464,710, a decline of £919,085 as compared with the previous year. The following table shows the value of power, fuel and light used in the different classes of industry in 1931-32:—

VALUE OF POWER, FUEL AND LIGHT USED(a) IN FACTORIES, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	139,445	117,868	18,487	15,264	21,490	35,648	348,202
II. Bricks, Pottery, Glass, etc. ..	134,291	100,472	12,714	11,463	12,369	6,314	277,623
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	165,222	158,251	9,958	41,732	21,024	4,528	400,715
IV. Industrial Metals, Machines, Implements and Conveyances ..	1,181,735	322,828	56,315	265,151	44,731	260,074	2,130,834
V. Precious Metals, Jewellery and Plate ..	4,234	8,475	750	1,046	189	188	14,882
VI. Textiles and Textile Goods ..	135,883	249,546	15,613	17,385	6,204	43,771	468,402
VII. Skins and Leather ..	70,198	74,754	7,159	2,463	5,244	988	160,806
VIII. Clothing ..	73,311	118,260	11,748	10,909	6,284	1,999	222,511
IX. Food, Drink and Tobacco ..	749,370	692,184	376,970	166,908	114,874	56,088	2,156,394
X. Woodworking and Basketware ..	46,594	42,833	26,824	10,100	15,910	17,012	159,273
XI. Furniture, Bedding, etc. ..	18,414	19,634	7,211	4,993	2,684	1,555	54,491
XII. Paper, Stationery, Printing, Book-binding, etc. ..	114,958	133,380	29,724	14,334	11,253	6,646	310,295
XIII. Rubber ..	68,270	104,313	4,698	2,239	1,724	10,810	192,054
XIV. Musical Instruments ..	9,211	1,229	8	130	29	..	10,607
XV. Miscellaneous Products ..	16,597	11,828	1,029	1,679	974	495	32,602
XVI. Heat, Light and Power ..	1,301,592	548,936	187,293	183,018	299,074	5,106	2,525,019
<b>Total ..</b>	<b>4,229,325</b>	<b>2,704,791</b>	<b>766,501</b>	<b>748,814</b>	<b>564,057</b>	<b>451,222</b>	<b>9,464,710</b>

(a) Including lubricants and water.

(ii) *Total Amount, 1927-28 to 1931-32.* The next table gives the sums expended on power, fuel and light during the past five years:—

VALUE OF POWER, FUEL AND LIGHT USED IN FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
1927-28 ..	6,791,285	3,712,886	1,032,303	1,366,853	586,965	483,685	13,073,977
1928-29 ..	6,773,214	3,641,148	1,006,627	1,287,729	624,031	550,657	13,883,406
1929-30 ..	6,471,071	3,714,072	950,194	1,255,146	617,758	594,513	13,602,754
1930-31 ..	4,727,673	2,836,126	875,330	855,289	552,100	537,277	10,383,795
1931-32 ..	4,229,325	2,704,791	766,501	748,814	564,057	451,222	9,464,710

4. Value of Materials Used.—(i) *Total Amount, 1931-32.* The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1931-32 was £161,199,245, representing 57.23 per cent. of the value of the final output. (See next sub-section.) The table

hereunder shows the value of the materials used in various classes of industry in each State:—

VALUE OF MATERIALS USED IN FACTORIES, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	696,669	427,259	68,627	46,926	53,507	59,352	1,352,340
II. Bricks, Pottery, Glass, etc. ..	265,023	155,386	19,643	27,740	36,503	9,424	513,719
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,520,396	3,242,287	276,815	986,478	826,255	111,261	9,963,492
IV. Industrial Metals, Machines, Implements and Conveyances ..	15,150,735	4,717,427	940,215	2,501,481	500,769	767,313	24,577,940
V. Precious Metals, Jewellery and Plate ..	49,689	148,734	7,727	15,038	3,026	247	224,461
VI. Textiles and Textile Goods ..	2,958,545	5,030,273	1,136,282	394,729	119,216	359,431	9,998,476
VII. Skins and Leather ..	2,567,663	2,237,944	297,565	112,031	130,259	22,991	5,368,453
VIII. Clothing ..	3,861,705	7,227,147	646,440	385,679	432,704	80,199	12,633,874
IX. Food, Drink and Tobacco ..	25,581,092	23,235,167	18,971,249	5,846,624	3,064,019	1,277,359	77,975,510
X. Woodworking and Basketware ..	1,747,234	1,050,227	716,735	489,100	379,082	187,331	4,569,709
XI. Furniture, Bedding, etc. ..	721,981	612,497	190,627	112,463	104,232	28,866	1,770,666
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,051,608	2,534,934	479,240	380,855	234,349	84,902	6,765,888
XIII. Rubber ..	891,916	1,105,150	93,363	35,894	14,142	117,350	2,257,815
XIV. Musical Instruments ..	140,647	49,679	600	2,451	214	..	193,591
XV. Miscellaneous Products ..	450,875	365,534	26,906	45,689	32,587	20,017	941,608
XVI. Heat, Light and Power ..	900,923	724,553	143,282	198,530	86,886	37,529	2,091,703
Total ..	63,556,701	52,864,198	24,015,316	11,581,708	6,017,750	3,163,572	161,199,245

The greatest value of materials used was in Class IX., "Food, Drink and Tobacco," the total being £77,975,510. The next in order of importance was Class IV., "Industrial Metals, Machines, Implements and Conveyances", in which raw materials valued at £24,577,940 were used. The minimum value appears in Class XIV., "Musical Instruments," the total being only £193,591.

(ii) *Total Amount, 1927-28 to 1931-32.* The following table gives the value of materials used in factories for the past five years:—

VALUE OF MATERIALS USED IN FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1927-28 ..	102,807,287	70,954,166	28,620,664	20,571,650	8,579,656	4,083,837	233,617,260
1928-29 ..	104,897,920	71,231,036	29,882,434	19,821,262	8,736,849	4,369,065	238,938,566
1929-30 ..	93,931,937	67,837,659	28,005,241	18,080,989	8,685,647	4,403,714	220,945,187
1930-31 ..	64,232,090	51,175,701	26,018,866	11,387,054	6,520,142	2,770,793	162,104,646
1931-32 ..	63,556,701	52,864,198	24,015,316	11,581,708	6,017,750	3,163,572	161,199,245

5. *Total Value of Output.*—(i) *Total, 1931-32.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1931-32 is shown in the following table. The figures given represent not only the increase in value due to the process of manufacture, but include also the value of the raw materials, and the power, fuel and light used. The difference between the sum of the values of the materials and the fuel and light used, and the total output (see subsection 6 hereof) is the real value of factory production.

## TOTAL VALUE OF OUTPUT OF FACTORIES, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	1,507,116	1,149,881	205,611	149,366	177,960	198,405	3,388,339
II. Bricks, pottery, glass, etc. ..	1,128,002	761,035	115,281	92,602	123,914	36,600	2,257,434
III. Chemicals, dyes, explosives, paint, oils, and grease ..	9,014,371	5,901,862	508,431	1,522,330	1,183,157	155,471	18,285,622
IV. Industrial metals, machines, implements and conveyances ..	27,729,982	11,410,910	2,682,291	4,544,650	1,474,936	1,670,140	49,512,909
V. Precious metals, jewellery and plate ..	165,110	389,328	29,136	40,357	14,001	4,728	642,660
VI. Textiles and textile goods ..	5,276,383	9,270,428	1,322,181	548,953	206,009	771,992	17,395,946
VII. Skins and leather ..	3,574,978	3,314,377	443,759	189,826	198,126	36,791	7,757,857
VIII. Clothing ..	7,575,103	13,153,939	1,403,706	861,724	785,405	181,554	23,961,431
IX. Food, drink and tobacco ..	36,784,735	32,852,938	24,915,260	7,728,744	4,563,344	1,983,895	108,828,916
X. Woodworking and basketware ..	2,869,959	2,229,107	1,435,388	770,665	683,077	409,020	8,397,216
XI. Furniture, bedding, etc. ..	1,324,399	1,193,938	418,118	228,923	202,336	73,223	3,440,937
XII. Paper, stationery, printing, book-binding, etc. ..	7,202,698	5,883,590	1,737,830	918,800	673,128	281,083	16,697,129
XIII. Rubber ..	1,696,488	2,161,171	166,258	72,515	39,295	182,337	4,318,064
XIV. Musical instruments ..	258,793	100,983	3,116	7,433	6,538	..	376,863
XV. Miscellaneous products ..	976,836	771,323	78,689	114,881	70,141	56,622	2,068,492
XVI. Heat, light and power ..	7,354,554	2,843,807	1,450,118	1,500,601	785,574	381,316	14,315,970
Total ..	114,439,507	93,388,617	36,915,173	19,292,370	11,186,941	6,423,177	281,645,785

(ii) Totals, 1927-28 to 1931-32. The following statement shows the value of output of factories in each State in the five years ended 1931-32 :-

## TOTAL VALUE OF OUTPUT OF FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1927-28 ..	181,403,084	128,465,317	46,462,840	35,426,174	16,998,184	8,238,410	476,994,009
1928-29 ..	185,298,575	127,897,463	47,641,536	33,677,368	17,454,430	8,475,916	420,445,288
1929-30 ..	167,250,618	122,811,099	45,085,938	30,312,784	16,891,482	8,560,452	390,912,373
1930-31 ..	118,483,536	93,425,795	40,422,858	19,997,455	12,353,353	6,115,567	290,798,564
1931-32 ..	114,439,507	93,388,617	36,915,173	19,292,370	11,186,941	6,423,177	281,645,785

6. Value of Production.—The value of production for any industry was defined by the Conference of Statisticians at Sydney in 1925, as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production."

In accordance with this definition, a rule was adopted for the valuation of factory production by deducting from the value of the output the cost of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation. All these, except depreciation, are included in the items "Value of materials used" and "Value of fuel used" as defined above. On account of the difficulty in obtaining accurate figures for depreciation, it was agreed that no deduction should be made on this account until more satisfactory data were available. The value of production as given in the following tables is obtained, therefore, by deducting "Value of materials used" and "Value of fuel used" from the value of the output.

The figure thus calculated is, therefore, not the net value of production. The deduction for depreciation should probably be about 8 per cent. on the capital value, or approximately £18,200,000 in 1931-32. Many miscellaneous expenses, also, such as insurance and advertising, were not taken into account. Hence, it must not be inferred that when wages and salaries are deducted from value of production, the whole of the "surplus" is available for interest and profit.



(i) *Total in Classes, 1931-32.* The following table shows the value of production in 1931-32 in each State for the various classes of factories:—

VALUE OF PRODUCTION, 1931-32.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	671,002	604,754	118,497	87,176	102,963	103,405	1,687,797
II. Bricks, Pottery, Glass, etc. ..	728,688	505,177	82,924	53,399	75,042	20,862	1,466,092
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,328,753	2,501,324	221,658	494,120	335,878	39,682	7,921,415
IV. Industrial Metals, Machines, Implements and Conveyances ..	11,397,512	6,370,655	1,685,761	1,778,018	929,436	642,753	22,804,135
V. Precious Metals, Jewellery and Plate ..	111,187	232,119	20,659	24,273	10,786	4,293	403,317
VI. Textiles and Textile Goods ..	2,181,955	3,990,609	170,286	136,839	80,589	368,790	6,929,068
VII. Skins and Leather ..	937,117	1,001,679	139,035	75,332	62,623	12,812	2,228,598
VIII. Clothing ..	3,640,087	5,808,532	745,518	465,136	346,417	99,356	11,105,046
IX. Food, Drink and Tobacco ..	10,454,273	8,925,587	5,567,041	1,715,212	1,384,451	650,448	28,697,012
X. Woodworking and Basketware ..	1,076,131	1,136,047	691,829	271,465	288,085	204,677	3,668,234
XI. Furniture, Bedding, etc. ..	584,004	561,807	220,280	111,467	95,420	42,802	1,615,780
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,036,132	3,215,276	1,228,866	523,611	427,526	189,535	9,620,946
XIII. Rubber ..	736,302	951,708	68,297	34,382	23,429	54,177	1,868,195
XIV. Musical Instruments ..	108,935	50,075	2,508	4,852	6,295	..	172,665
XV. Miscellaneous Products ..	509,364	393,961	50,754	67,513	36,580	36,110	1,094,282
XVI. Heat, Light and Power ..	5,152,039	1,570,318	1,119,543	1,119,053	399,614	338,681	9,699,248
Total ..	46,653,481	37,819,628	12,133,356	6,961,848	4,605,134	2,808,383	110,981,830

(ii) *Totals and Averages, 1927-28 to 1931-32.* The value of production and the amount per employee and per head of population are shown in the following table for the years specified:—

FACTORIES.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
VALUE.							
	£	£	£	£	£	£	£
1927-28 ..	71,804,512	53,798,265	16,809,873	13,487,671	7,831,563	3,670,888	167,402,772
1928-29 ..	73,627,441	53,025,279	16,752,475	12,568,377	8,093,550	3,556,194	167,623,316
1929-30 ..	66,847,610	51,259,368	16,130,503	10,976,649	7,588,077	3,562,225	156,364,432
1930-31 ..	49,523,773	39,413,968	13,528,662	7,755,112	5,281,111	2,807,497	118,310,123
1931-32 ..	46,653,481	37,819,628	12,133,356	6,961,848	4,605,134	2,808,383	110,981,830
PER EMPLOYEE.(a)							
	£	£	£	£	£	£	£
1927-28 ..	403	344	376	345	384	330	372
1928-29 ..	407	339	372	341	389	340	372
1929-30 ..	410	339	378	341	386	329	373
1930-31 ..	388	313	357	325	361	318	349
1931-32 ..	369	295	339	292	344	312	330
PER HEAD OF POPULATION.							
	£	£	£	£	£	£	£
1927-28 ..	29.92	30.89	18.69	23.43	19.96	17.01	26.85
1928-29 ..	30.11	30.11	18.27	21.69	19.94	16.43	26.45
1929-30 ..	26.98	28.84	17.33	18.92	18.21	16.26	24.38
1930-31 ..	19.81	22.01	14.27	13.32	12.56	12.72	18.27
1931-32 ..	18.53	21.00	12.59	11.90	10.92	12.57	17.01

(a) Including Working Proprietors.

7. Value of Output and Cost of Production.—As the total value of the output for Australia for 1931-32 was estimated at £281,645,785, there remained, after payment of £161,199,245, the value of the materials used, of £55,931,818 for salaries and wages, and of £9,464,710 for fuel, the sum of £55,050,012 to provide for all other expenditure and profits. The following table gives corresponding particulars for each State expressed absolutely, and as percentages on the total value of the output for the year 1931-32 :—

**FACTORIES.—VALUE OF OUTPUT AND COST OF PRODUCTION, 1931-32.**

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest and Profits.	Total value of Output.
<b>VALUE AND COST, ETC.</b>					
	£	£	£	£	£
New South Wales ..	63,556,701	4,229,325	22,751,013	23,902,468	114,439,507
Victoria ..	52,864,198	2,704,791	19,454,045	18,365,583	93,388,617
Queensland..	24,015,316	766,501	6,188,889	5,944,467	36,915,173
South Australia ..	11,581,708	748,814	3,786,056	3,175,792	19,292,370
Western Australia ..	6,017,750	564,057	2,335,684	2,260,450	11,186,941
Tasmania ..	3,163,572	451,222	1,416,131	1,392,252	6,423,177
Australia ..	161,199,245	9,464,710	55,931,818	55,050,012	281,645,785

**PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE**

	%	%	%	%	%
New South Wales ..	55.54	3.70	19.88	20.88	100.00
Victoria ..	56.60	2.90	20.83	19.67	100.00
Queensland..	65.06	2.08	16.76	16.10	100.00
South Australia ..	60.04	3.88	19.62	16.46	100.00
Western Australia ..	53.79	5.04	20.88	20.29	100.00
Tasmania ..	49.25	7.02	22.05	21.68	100.00
Australia ..	57.23	3.36	19.86	19.55	100.00

(a) Including the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.

(b) Including lubricants and water.

**§ 8. Value of Land, Buildings, Plant, and Machinery.**

1. General.—For some years prior to 1929-30 the capital value of land, buildings, plant and machinery had increased rapidly, but latterly these values have contracted from £245,695,920 in 1929-30 to £228,119,701 in 1931-32.

The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1931-32 :—

VALUE OF LAND, BUILDINGS, PLANT, AND MACHINERY, 1931-32.

Value of—	N.S.W.	Victoria.	Q'land.	S.A.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	46,462,828	34,868,960	8,980,620	8,032,264	5,470,954	2,774,698	106,590,324
Plant and machinery	50,277,992	33,481,615	15,743,919	9,624,637	5,945,468	6,455,746	121,529,377
Total ..	96,740,820	68,350,575	24,724,539	17,656,901	11,416,422	9,230,444	228,119,701

The values recorded in this section are generally the values apportioned in the books of the individual firms. Depreciation on a generous scale has been allowed for in most cases. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.

2. Value of Land and Buildings.—(i) *Total, Australia, 1927-28 to 1931-32.* The appended table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1927-28 to 1931-32 inclusive :—

VALUE OF LAND AND BUILDINGS.—AUSTRALIA.

Class of Industry.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	2,471,346	2,545,729	2,565,373	2,561,418	2,392,522
II. Bricks, pottery, glass, etc. ..	2,903,116	3,019,723	3,020,979	2,405,960	1,992,755
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,491,497	5,687,978	5,986,996	5,866,714	5,779,483
IV. Industrial metals, machines, implements and conveyances ..	27,346,706	28,293,793	28,957,846	27,679,331	25,582,740
V. Precious metals, jewellery and plate ..	682,038	659,734	658,936	557,662	510,746
VI. Textiles and textile goods	4,653,315	4,879,036	5,065,228	4,884,218	4,739,366
VII. Skins and leather ..	1,879,955	1,862,509	1,936,107	1,873,402	1,778,219
VIII. Clothing ..	12,786,472	13,094,838	12,539,163	10,697,755	9,334,049
IX. Food, drink and tobacco	25,092,521	26,385,520	26,996,483	26,760,444	26,676,269
X. Woodworking and basketware ..	4,623,841	4,633,459	4,514,789	3,866,980	3,601,684
XI. Furniture, bedding, etc.	2,888,080	2,955,609	2,733,336	2,283,528	1,978,384
XII. Paper, stationery, printing, bookbinding, etc.	9,310,538	9,526,079	9,974,734	9,764,623	9,187,481
XIII. Rubber ..	1,612,280	1,878,848	2,250,302	2,213,432	2,078,335
XIV. Musical instruments ..	450,506	466,710	444,875	391,144	313,313
XV. Miscellaneous products ..	689,174	895,617	923,403	1,037,221	1,028,693
XVI. Heat, light and power ..	7,145,008	7,870,879	9,499,679	9,366,777	9,616,285
Total ..	110,026,393	114,656,061	118,068,229	112,210,609	106,590,324

(ii) *Value in each State, 1931-32.* The following table gives similar information for each State for 1931-32 :—

VALUE OF LAND AND BUILDINGS.—STATES, 1931-32.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metaliferous mine and quarry products ..	1,132,443	766,277	101,363	140,216	57,748	194,475	2,392,522
II. Bricks, pottery, glass, etc. ..	1,095,142	630,811	77,578	76,757	92,553	19,914	1,992,755
III. Chemicals, dyes, explosives, paint, oils and grease ..	2,278,985	2,273,398	120,440	467,857	542,475	96,328	5,779,483
IV. Industrial metals, machines, implements and conveyances ..	12,626,847	7,171,494	1,476,635	2,348,280	1,284,005	675,479	25,582,740
V. Precious metals, jewellery and plate ..	169,791	239,385	26,721	35,889	21,255	17,705	510,746
VI. Textiles and textile goods ..	1,484,371	2,582,965	170,382	137,034	76,289	288,325	4,739,366
VII. Skins and leather ..	651,096	862,600	77,344	55,523	117,990	13,666	1,778,219
VIII. Clothing ..	3,456,709	4,216,439	507,593	605,397	428,114	119,797	9,334,049
IX. Food, drink and tobacco ..	9,865,424	7,837,884	4,286,119	2,285,560	1,564,892	836,390	26,676,269
X. Woodworking and basketware ..	1,525,447	949,862	433,734	264,487	300,110	128,044	3,601,684
XI. Furniture, bedding, etc. ..	761,334	742,331	174,891	136,304	114,028	49,496	1,978,384
XII. Paper, stationery, printing, book-binding, etc. ..	4,052,336	2,977,402	892,090	685,329	474,517	105,807	9,187,481
XIII. Rubber ..	955,674	804,442	55,184	73,870	47,780	141,385	2,078,335
XIV. Musical instruments ..	191,651	99,849	850	13,113	7,850	..	313,313
XV. Miscellaneous products ..	511,875	323,843	78,931	73,079	32,176	8,789	1,028,693
XVI. Heat, light and power ..	5,793,793	2,389,978	500,765	633,569	309,172	79,098	9,616,285
Total ..	46,462,828	34,868,960	8,980,620	8,032,264	5,470,954	2,774,698	106,590,324

(iii) *Value in each State, 1927-28 to 1931-32.* The total value of factory land and buildings at the end of each year from 1927-28 to 1931-32 is given hereunder.

VALUE OF LAND AND BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1927-28 ..	49,414,310	34,761,340	9,123,821	8,786,280	5,381,864	2,558,778	110,026,393
1928-29 ..	51,375,003	36,184,460	9,665,239	8,934,405	5,808,539	2,688,415	114,656,061
1929-30 ..	53,785,319	36,988,485	9,690,313	8,937,039	5,670,214	2,996,859	118,068,229
1930-31 ..	49,822,312	36,218,384	9,355,106	8,418,702	5,656,833	2,739,272	112,210,609
1931-32 ..	46,462,828	34,868,960	8,980,620	8,032,264	5,470,954	2,774,698	106,590,324

A decline of £5.6 million on the previous year's figures occurred in 1931-32, the returns for New South Wales showing a loss of nearly £3.4 million and for Victoria a loss of £1.4 million. Prior to 1929-30 the increase in the value of land and buildings was uninterrupted, rising from £23 million in 1903 to £118 million in 1929-30, a growth of £95 million in 27 years. During the past two years, however, there was a decline of £12 million, i.e., to £106.6 million.

3. Value of Plant and Machinery.—(i) *Total, Australia, 1927-28 to 1931-32.* The following table shows for Australia as a whole the approximate value of plant and machinery used in factories in each of the years specified.

VALUE OF PLANT AND MACHINERY.—AUSTRALIA.

Class of Industry.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	£	£	£	£	£
I. Treatment of non-metaliferous mine and quarry products ..	4,996,010	5,029,438	4,926,370	5,959,537	5,773,446
II. Bricks, pottery, glass, etc. ..	3,140,732	3,158,347	3,093,832	2,331,332	1,974,507
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,247,463	5,566,514	5,814,275	5,738,555	5,729,195
IV. Industrial metals, machines, implements and conveyances ..	25,863,988	26,528,636	26,797,812	25,385,254	24,665,290
V. Precious metals, jewellery and plate ..	147,984	136,632	150,733	139,827	139,441
VI. Textiles and textile goods ..	6,184,214	5,986,828	6,181,931	5,935,393	5,638,054
VII. Skins and leather ..	830,170	783,886	902,544	862,012	916,685
VIII. Clothing ..	2,443,769	2,456,949	2,399,668	2,174,238	2,211,284
IX. Food, drink and tobacco	27,645,444	28,281,311	28,261,873	28,948,702	28,176,453
X. Woodworking and basketware ..	4,862,571	4,650,821	4,384,656	3,762,029	3,498,591
XI. Furniture, bedding, etc. ..	850,378	895,732	898,333	732,590	672,169
XII. Paper, stationery, printing, bookbinding, etc. ..	8,187,155	8,422,027	8,317,935	7,768,633	7,310,058
XIII. Rubber ..	1,744,011	1,871,976	2,275,808	2,175,851	2,029,401
XIV. Musical instruments ..	197,703	218,124	210,365	189,854	162,496
XV. Miscellaneous products ..	232,547	326,758	349,512	493,597	507,754
XVI. Heat, light and power ..	28,653,676	30,378,809	32,662,044	31,900,293	32,124,553
Total ..	121,227,815	124,692,788	127,627,691	124,497,697	121,529,377

Up to the year 1929-30 there had been a steady and substantial net increase amounting in all to £15 million for the previous four years, or an annual average of £3.8 million. In 1930-31, however, there was a decrease of £3.2 million, and in 1931-32 a further decline of £2.9 million.

(ii) *Value in each State, 1927-28 to 1931-32.* The figures in the previous table refer to Australia as a whole. In the following table results are shown for each State, and until 1929-30 the increase was general throughout the States. During the past two years, however, as pointed out above a total decrease of £6.1 million was recorded, the chief losses being in New South Wales and Victoria.

VALUE OF PLANT AND MACHINERY.—STATES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1927-28 ..	50,489,675	32,745,680	16,592,358	9,421,202	5,553,295	6,425,605	121,227,815
1928-29 ..	51,305,710	33,724,910	16,719,349	10,382,257	6,154,115	6,346,447	124,692,788
1929-30 ..	53,515,368	35,022,535	15,723,983	10,286,674	6,112,186	6,966,945	127,627,691
1930-31 ..	50,865,884	34,771,687	16,100,004	10,182,855	6,134,766	6,442,501	124,497,697
1931-32 ..	50,277,992	33,481,615	15,743,919	9,624,637	5,945,468	6,455,746	121,529,377

(iii) *Value according to Industry, 1931-32.* The following table shows the value of plant and machinery used in factories in each State during 1931-32, classified according to industry.

VALUE OF PLANT AND MACHINERY.—INDUSTRIES, 1931-32.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	3,232,611	1,526,487	189,456	353,342	148,990	322,560	5,773,446
II. Bricks, pottery, glass, etc. ..	1,084,466	585,441	88,623	77,691	106,071	32,215	1,974,507
III. Chemicals, dyes, explosives, paint, oils and grease ..	1,563,441	2,385,089	102,122	826,791	791,983	59,769	5,729,195
IV. Industrial metals, machines, implements and conveyances ..	14,317,792	4,832,200	1,123,693	2,294,971	821,866	1,274,768	24,665,290
V. Precious metals, jewellery and plate ..	49,702	71,669	4,946	9,234	2,259	1,631	139,441
VI. Textiles and textile goods ..	1,758,315	3,059,520	183,141	198,951	111,627	326,500	5,638,054
VII. Skins and leather ..	346,571	447,713	41,580	22,410	51,992	6,419	916,685
VIII. Clothing ..	709,177	1,221,113	115,817	84,091	67,054	14,032	2,211,284
IX. Food, drink and tobacco ..	8,443,282	6,481,984	9,553,129	1,742,707	1,494,333	461,018	28,176,453
X. Woodworking and basketware ..	942,666	857,313	590,666	175,788	736,286	195,872	3,498,591
XI. Furniture, bedding, etc. ..	239,957	210,326	87,218	69,461	43,954	21,253	672,169
XII. Paper, stationery, printing, book-binding, etc. ..	3,127,494	2,522,244	633,086	572,943	345,288	109,003	7,310,058
XIII. Rubber ..	821,567	1,000,460	15,907	13,640	11,674	106,153	2,029,401
XIV. Musical instruments ..	121,802	34,587	128	5,018	961	..	162,496
XV. Miscellaneous products ..	222,077	237,099	13,434	14,009	14,701	6,434	507,754
XVI. Heat, light and power ..	13,297,072	8,008,370	3,000,973	3,163,590	1,196,429	3,458,119	32,124,553
<b>Total</b> ..	<b>50,277,992</b>	<b>33,481,615</b>	<b>15,743,919</b>	<b>9,624,637</b>	<b>5,945,468</b>	<b>6,455,746</b>	<b>121,529,377</b>

### § 9. Individual Industries.

I. **General.**—The preceding pages afford a general view of the development of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account in respect of all industries, particular industries which are of special importance by reason of the number of persons employed, the number of factories, the amount of capital invested therein, the value of the production, or other features of special interest, are dealt with hereunder. In cases where there are only one or two establishments of a particular class in any State, returns of output are not published, in order to avoid disclosing information as to the operations of individual concerns.

Reference has already been made to the change in method of computing the average number of persons employed in manufacturing industries. (See § 4 *ante*.) In the following tables relating to individual industries the number of employees shown in each case for the years 1928-29 onward have been computed by the new method, while those for the year 1927-28 are on the old basis and therefore somewhat in excess of the average for the twelve months.

2. Tanning, Currying and Leather Dressing.—(i) *Details for each State, 1931-32.* In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser class of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

**TANNING, CURRYING, AND LEATHER DRESSING, 1931-32.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. ..	65	50	15	8	7	2	146
Number of employees .. ..	1,192	1,626	284	117	66	40	3,336
Actual horse-power of engines used ..	3,119	3,775	617	304	(a)	(a) b	8,312
Approx. value of land and buildings £	245,214	421,535	31,301	20,126	(a)	(a) b	763,950
Approx. value of plant and machinery £	160,276	282,716	27,536	16,347	(a)	(a) b	519,579
Wages paid .. ..	234,633	293,433	42,303	19,402	(a)	(a) b	609,305
Value of fuel used .. ..	£ 26,434	39,933	4,629	1,830	(a)	(a) b	74,653
Value of materials used .. ..	£ 961,368	1,112,671	169,890	44,654	(a)	(a) b	2,359,842
Total value of output .. ..	£ 1,422,301	1,669,760	232,369	71,852	(a)	(a) b	3,509,078
Value of production .. ..	£ 434,499	518,056	57,850	25,368	(a)	(a) b	1,074,583

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Development in Australia, 1927-28 to 1931-32.* The development of the tanning industry during the years stated is shown in the following table:—

**TANNING, CURRYING AND LEATHER DRESSING.—AUSTRALIA.**

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories .. ..	142	142	143	148	146
Number of employees .. ..	3,607	(a) 3,688	(a) 3,572	(a) 2,885	(a) 3,336
Actual horse-power of engines used ..	8,041	8,379	8,224	7,948	8,312
Approx. value of land and buildings £	835,376	835,135	824,415	804,063	763,950
Approx. value of plant and machinery £	669,575	628,295	603,083	545,250	519,579
Wages paid .. ..	825,841	828,078	812,772	595,155	609,305
Value of fuel used .. ..	£ 87,748	82,788	81,660	68,733	74,653
Value of materials used .. ..	£ 3,835,412	4,027,700	3,071,761	2,132,437	2,359,842
Total value of output .. ..	£ 5,435,810	5,593,756	4,467,175	3,183,138	3,509,078
Value of production .. ..	£ 1,512,650	1,483,268	1,313,754	981,968	1,074,583

(a) See § 9. i.

A slight improvement is recorded for the year 1931-32 as compared with 1930-31. The number employed increased by 450, and the value of output and production also showed a small advance.

(iii) *Raw Material Used and Production, 1931-32.* The quantities of raw material used and leather produced in tanneries in each State are shown in the following table:—

**TANNERIES.—RAW MATERIAL USED AND PRODUCTION, 1931-32.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides .. .. No.	449,931	725,847	96,161	39,117	35,879	8,320	1,355,255
Skins—							
Calf .. ..	481,424	375,424	99,935	962	368	..	958,113
Goat .. ..	363,764	301,052	26,876	409	461	..	692,592
Sheep .. ..	1,702,052	411,420	154,803	115,742	3,505	18,500	2,406,082
Marsupial .. ..	..	52,320	20,435	1,455	8,387	4,300	86,897
Reptile .. ..	7,140	9,576	4	..	..	..	16,720
Other .. ..	1,927,621	298,298	375	538	..	..	2,226,832
Bark used—							
Wattle .. .. ton	9,119	8,058	1,641	668	196	240	19,922
Other .. ..	146	2,120	98	88	411	..	2,863
Tanning extract used .. lb.	1,464,650	876,067	(a)	162,176	605,131	(a) b	3,108,024
Leather made—							
Sole .. ..	9,180,632	11,465,893	2,003,782	933,903	998,579	366,080	24,948,869
Harness .. ..	659,135	520,341	387,862	112,629	65,537	..	1,745,504
Upholstery .. .. sq. ft.	..	1,019,842	..	9,415	..	..	1,029,257
Patent and other .. ..	6,094,406	9,578,412	862,040	234,373	102,100	..	16,871,531
Waxed kip and other .. lb.	46,636	364,964	198,223	91,806	35,720	..	737,349
Dressed from skins—							
Calf .. .. sq. ft.	3,865,207	3,490,856	694,703	2,763	2,227	..	8,055,756
Goat .. ..	1,389,775	1,226,867	(a)	646	2,300	..	2,619,588
Sheep .. ..	6,894,512	2,413,609	201,880	(a)	8,200	..	9,518,201
Marsupial .. .. No.	..	(c) 171,920	39,061	..	6,320	..	(b)

(a) Not available.

(b) Incomplete.

(c) Square feet.

3. Soap and Candle Factories.—(i) *Details for each State, 1931-32.* The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained; the manufacture of soap is, however, the more important. The following table gives particulars of soap and candle factories in each State for the year 1931-32 :—

## SOAP AND CANDLE FACTORIES, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. ..	26	21	10	5	4	2	68
Number of employees .. ..	986	683	180	170	56	31	2,106
Actual horse-power of engines used ..	1,242	618	192	409	(a)	(a) b	2,579
Approx. value of land and buildings ..	£ 320,188	£ 197,183	£ 39,924	£ 85,455	(a)	(a) b	£ 667,948
Approx. value of plant and machinery ..	£ 269,894	£ 227,535	£ 27,753	£ 73,251	(a)	(a) b	£ 617,932
Wages paid .. ..	£ 196,924	£ 112,574	£ 26,292	£ 30,515	(a)	(a) b	£ 384,410
Value of fuel used .. ..	£ 28,636	£ 34,385	£ 2,484	£ 3,671	(a)	(a) b	£ 72,439
Value of materials used .. ..	£ 708,624	£ 505,136	£ 86,907	£ 103,011	(a)	(a) b	£ 1,436,457
Total value of output .. ..	£ 1,355,089	£ 1,038,525	£ 197,771	£ 166,587	(a)	(a) b	£ 2,875,670
Value of production .. ..	£ 617,829	£ 499,004	£ 108,380	£ 59,905	(a)	(a) b	£ 1,316,774

(a) Particulars not available for publication. (b) Including Western Australia and Tasmania.

(ii) *Development in Australia, 1927-28 to 1931-32.* The next table gives similar particulars for the last five years as regards Australia as a whole :—

## SOAP AND CANDLE FACTORIES.—AUSTRALIA.

Items.	1927-28.a	1928-29.a	1929-30.a	1930-31.c	1931-32.
Number of factories .. ..	66	67	62	56	68
Number of employees .. ..	2,362	(b) 2,333	(b) 2,148	(b) 1,985	(b) 2,106
Actual horse-power and engines used ..	3,084	3,550	2,595	2,202	2,579
Approx. value of land and buildings ..	£ 743,823	£ 701,125	£ 681,818	£ 650,000	£ 667,948
Approx. value of plant and machinery ..	£ 689,718	£ 718,611	£ 654,647	£ 604,767	£ 617,932
Wages paid .. ..	£ 473,550	£ 489,341	£ 426,608	£ 388,558	£ 384,410
Value of fuel used .. ..	£ 98,745	£ 100,555	£ 82,239	£ 71,395	£ 72,439
Value of materials used .. ..	£ 1,988,098	£ 2,133,004	£ 1,797,688	£ 1,448,411	£ 1,486,457
Total value of output .. ..	£ 3,452,912	£ 3,661,958	£ 3,143,838	£ 2,768,214	£ 2,875,670
Value of production .. ..	£ 1,366,069	£ 1,428,399	£ 1,263,911	£ 1,248,408	£ 1,316,774

(a) Including other small establishments in Western Australia. (b) See § 9. i.

(c) Excluding Western Australia.

(iii) *Raw Material Used and Production, 1927-28 to 1931-32.* The following statement shows the quantities of certain raw material used and the production in soap and candle factories in Australia for the years specified :—

## SOAP AND CANDLE FACTORIES.—RAW MATERIAL USED, AND PRODUCTION, AUSTRALIA.

Particulars.	1927-28.a	1928-29.	1929-30.	1930-31.	1931-32.
Tallow used .. .. cwt.	502,903	548,112	491,603	467,446	503,501
Alkali used .. .. "	204,003	226,156	219,648	187,408	249,858
Coconut oil used .. .. gal.	807,941	1,012,246	920,531	905,234	959,817
Soap made .. .. cwt.	1,020,192	1,130,947	1,026,373	976,771	964,476
Candles made .. .. "	66,091	70,526	49,812	51,582	55,110

(a) Exclusive of Western Australia.



The output for the year 1931-32 comprised the following quantities of soap :— Household, 780,545 cwt. ; toilet, 96,336 cwt. ; sand, 70,756 cwt. ; soft, 10,757 cwt. ; and other, 6,082 cwt.

4. Saw-mills, etc.—(i) *Details for States, 1931-32.* The most important industry in Class X. is that of saw-milling. As separate particulars of forest saw-mills are not available for some of the States, both forest and other saw-mills, as well as plywood and bark mills, have been combined in the following table :—

**SAW-MILLS, FOREST AND OTHER ; PLYWOOD AND BARK MILLS, 1931-32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	352	260	215	34	83	208	1,161
Number of employees ..	1,585	2,265	2,458	501	886	643	8,338
Actual horse-power of engines <i>  </i> used .. .. .	12,520	8,434	9,129	1,787	6,121	3,566	42,557
Approximate value of land <i>  </i> and buildings ..	£ 709,456	446,492	307,025	152,072	233,861	53,461	1,902,367
Approximate value of plant <i>  </i> and machinery ..	£ 572,246	571,323	509,600	108,153	700,425	150,027	2,611,864
Wages paid .. .. .	£ 283,982	367,793	366,799	88,685	170,104	80,988	1,358,351
Value of fuel used ..	£ 25,289	21,060	20,567	4,528	13,629	10,500	95,573
Value of materials used	£ 911,449	468,339	569,381	269,488	309,100	124,138	2,651,895
Total value of output	£ 1,392,363	1,072,678	1,110,373	421,591	555,258	268,294	4,820,557
Value of production	£ 455,625	583,279	520,425	147,575	232,529	133,656	2,073,089

(ii) *Development in Australia, 1927-28 to 1931-32.* The development of forest and other saw-mills, etc., since 1927-28 is shown in the following table. Joinery works have been excluded in the last two years.

**SAW-MILLS, FOREST AND OTHER.—AUSTRALIA.**

Items.	1927-28. (b)	1928-29. (b)	1929-30. (b)	1930-31.	1931-32.
Number of establishments .. .. .	2,168	2,164	2,109	1,160	1,161
Number of employees .. .. .	27,399	(a) 24,975	(a) 20,957	(a) 9,079	(a) 8,338
Actual horse-power of engines used	69,912	68,330	69,301	44,024	42,557
Approx. value of land and buildings	£ 3,878,828	3,877,292	3,802,885	1,989,580	1,902,367
Approx. value of plant and machinery	£ 4,428,949	4,184,260	3,950,279	2,824,431	2,611,864
Wages paid .. .. .	£ 5,571,162	5,017,539	4,477,491	1,675,640	1,358,351
Value of fuel used .. .. .	£ 221,108	204,033	202,329	99,321	95,573
Value of materials used .. .. .	£ 10,751,059	10,139,429	8,471,366	2,935,028	2,651,895
Total value of output .. .. .	£ 19,705,157	18,178,153	15,605,706	5,512,150	4,820,557
Value of production .. .. .	£ 8,732,990	7,834,691	6,932,011	2,457,801	2,073,089

(a) See § 9. 1.

(b) Including joinery works.

The effect of the depression is reflected in the decreases in the returns for the last four years. The saw-mill output of native timber declined from 740 million super. feet in 1925-26 to 485 million super. feet in 1929-30 to 267 million super. feet in 1930-31 and 237 million super. feet in 1931-32. Further reference is made to the saw-milling industry in Chapter XX.—Forestry.

5. **Agricultural Implement Works.**—(i) *General.* The manufacture of agricultural implements is of particular interest, owing to the fact that it was one of the first to which it was sought to apply the so-called "New Protection." The articles manufactured include stripper-harvesters, header harvesters or reaper threshers, strippers, reapers and binders, stump-jump and other ploughs, harrows, disc and other cultivators, winnowers, corn-shellers and baggers, drills, kerosene and petrol engines, and other implements employed in agriculture. The stripper harvester, which combines the stripper with a mechanism for winnowing and bagging grain, is an Australian invention, and is universally employed in the wheat-growing areas.

(ii) *Details for States, 1931-32.* The following table gives details respecting agricultural implement works in each State for the year 1931-32:—

**AGRICULTURAL IMPLEMENT WORKS, 1931-32.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	26	71	5	31	6	..	139
Number of employees .. ..	326	1,627	201	410	70	..	2,634
Actual horse-power of engines used .. ..	419	2,378	22	1,058	217	..	4,094
Approx. value of land and buildings £	111,672	291,190	41,899	145,540	42,670	..	632,971
Approx. value of plant and machinery £	54,826	293,370	13,656	181,613	27,812	..	571,277
Wages paid .. ..	£ 66,652	274,973	30,993	54,015	14,409	..	441,102
Value of fuel used .. ..	£ 3,603	25,817	3,315	5,414	632	..	38,781
Value of materials used .. ..	£ 77,067	302,501	53,118	66,063	7,325	..	506,074
Total value of output .. ..	£ 167,069	707,159	102,862	145,337	24,422	..	1,146,849
Value of production .. ..	£ 86,399	378,841	46,429	73,860	16,405	..	601,994

(iii) *Development in Australia, 1927-28 to 1931-32.* This industry declined considerably during the war years, but great progress was made thereafter. The fall in world prices of agricultural products resulted, however, in a considerable slackening in employment and output during the past three years as compared with 1927-28. Details for the last five years are as follow:—

**AGRICULTURAL IMPLEMENT WORKS.—AUSTRALIA.**

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories .. ..	157	150	148	148	139
Number of employees .. ..	5,729	(a) 5,480	(a) 4,463	(a) 3,043	(a) 2,634
Actual horse-power of engines used .. ..	6,355	4,808	4,737	4,349	4,094
Approx. value of land and buildings £	789,966	771,805	756,954	694,049	632,971
Approx. value of plant and machinery £	682,270	662,119	640,800	602,018	571,277
Wages paid .. ..	£ 1,291,330	1,227,720	985,369	607,421	441,102
Value of fuel used .. ..	£ 87,996	77,642	68,320	44,280	38,781
Value of materials used .. ..	£ 1,335,986	1,266,128	919,842	596,002	506,074
Total value of output .. ..	£ 3,303,557	3,167,332	2,397,562	1,473,173	1,146,849
Value of production .. ..	£ 1,879,575	1,823,562	1,409,400	832,891	601,994

(a) See § 9. 1.

6. **Engineering Works.**—Formerly, it was impossible to show separate details for the engineering industry owing to the limited classification adopted by some of the States, but since 1926–27 these particulars have been obtained, and with one or two duplications of minor importance, the following figures may be considered as representative of the engineering industry excepting the marine and electrical branches.

**ENGINEERING WORKS, (a) 1931–32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	256	301	43	50	83	19	752
Number of employees ..	3,903	3,918	956	613	582	158	10,130
Actual horse-power of engines used ..	7,626	7,146	2,677	1,112	1,755	330	20,646
Approximate value of land and buildings ..	£ 1,308,593	1,209,814	181,495	106,245	208,659	46,135	3,060,941
Approximate value of plant and machinery ..	£ 1,141,733	1,219,621	247,304	146,502	186,045	38,768	2,979,973
Wages paid ..	734,523	745,649	157,957	78,127	113,888	23,147	1,853,291
Value of fuel used ..	£ 43,702	51,735	10,293	8,212	14,770	3,469	132,181
Value of materials used ..	£ 640,386	771,727	162,433	82,084	129,267	13,444	1,799,341
Total value of output ..	£ 1,677,662	1,941,453	480,830	212,229	328,234	51,084	4,691,492
Value of production ..	£ 993,574	1,117,991	308,104	121,933	184,197	34,171	2,759,970

(a) Excluding marine and electrical.

In addition to engineering works which supply ordinary requirements, many establishments manufacture special classes of machinery and implements. The manufacture of mining, smelting, and textile machinery and apparatus forms an important section of this industry.

7. **Smelting, Converting, Refining, and Rolling of Iron and Steel.**—The extension of the classification noted in the preceding sub-section has made possible the separate publication of details for the group of industries comprised herein. This grouping includes ironworks, foundries, the making of iron safes and doors, steel castings, iron bedsteads, sash weights, steel window frames and sashes, nuts and bolts, springs, horse-shoes, screws, lifts, tools, brickmakers' implements, and oxy-acetylene welding. Particulars for the year 1931–32 are as follow:—

**SMELTING, CONVERTING, REFINING, AND ROLLING OF IRON AND STEEL, 1931–32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	150	188	24	27	..	..	389
Number of employees ..	4,369	2,593	313	649	..	..	7,924
Actual horse-power of engines used ..	74,346	8,746	856	1,339	..	..	85,287
Approximate value of land and buildings ..	£ 1,989,034	616,660	55,594	106,912	..	..	2,768,200
Approximate value of plant and machinery ..	£ 5,365,216	636,763	111,985	64,383	..	..	6,178,347
Wages paid ..	£ 996,720	413,004	55,878	91,009	..	..	1,556,611
Value of fuel used ..	£ 599,864	60,975	7,072	9,286	..	..	677,197
Value of materials used ..	£ 4,897,804	471,018	68,350	92,553	..	..	5,529,725
Total value of output ..	£ 7,351,569	1,186,612	138,592	212,611	..	..	8,889,384
Value of production ..	£ 1,853,901	654,619	63,170	110,772	..	..	2,682,462

8. Railway and Tramway Workshops.—(i) *Details for each State, 1931-32.* The railway and tramway workshops which form an important item in Class IV. are chiefly State-owned institutions. The following table giving details concerning them includes, in addition, municipal establishments for manufacturing and repairing rolling-stock. Private institutions to the number of 7 in 1931-32, have, however, been excluded.

**TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC.,(a) 1931-32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	35	22	12	14	20	5	108
Number of employees ..	11,966	4,976	2,784	2,542	1,457	292	24,017
Actual horse-power of engines used ..	14,791	5,120	4,992	4,303	4,483	361	34,050
Approximate value of land and buildings ..	£ 2,585,969	£ 1,484,113	£ 585,306	£ 874,319	£ 479,938	£ 17,733	£ 6,027,378
Approximate value of plant and machinery ..	£ 2,209,244	£ 1,144,324	£ 394,423	£ 707,883	£ 395,037	£ 88,233	£ 4,939,144
Wages paid ..	£ 2,721,883	£ 1,015,174	£ 529,652	£ 463,897	£ 303,695	£ 60,872	£ 5,095,173
Value of fuel used ..	£ 91,148	£ 71,666	£ 14,833	£ 21,791	£ 14,948	£ 4,389	£ 218,795
Value of materials used ..	£ 1,608,929	£ 1,082,359	£ 263,806	£ 351,029	£ 146,502	£ 23,582	£ 3,476,207
Total value of output ..	£ 4,864,126	£ 2,494,578	£ 889,142	£ 920,380	£ 531,022	£ 83,584	£ 9,782,841
Value of production ..	£ 3,164,049	£ 1,340,553	£ 610,483	£ 547,569	£ 369,572	£ 55,613	£ 6,087,839

(a) Government and Municipal.

A railway workshop in the Northern Territory is chiefly engaged in making repairs to rolling-stock, etc., no new goods being manufactured. Particulars in regard to this establishment are not included in any of the tables in this chapter.

(ii) *Development in Australia, 1927-28 to 1931-32.* The following table shows the development of railway and tramway workshops in Australia since 1927-28 :—

**TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC.—  
AUSTRALIA.**

Items.	1927-28.	1928-29.	1929-30.	1930-31. (b)	1931-32. (b)
Number of factories ..	.. 122	.. 122	.. 120	.. 112	.. 108
Number of employees ..	.. 31,315	(a) 31,658	(a) 29,339	(a) 26,055	(a) 24,017
Actual horse-power of engines used ..	.. 31,810	.. 32,346	.. 31,600	.. 31,952	.. 34,050
Approx. value of land and buildings ..	£ 5,345,963	£ 5,836,151	£ 6,230,511	£ 6,393,435	£ 6,027,378
Approx. value of plant and machinery ..	£ 5,338,210	£ 5,726,039	£ 5,872,138	£ 5,329,478	£ 4,939,144
Wages paid ..	£ 7,967,515	£ 8,058,200	£ 7,599,005	£ 6,033,954	£ 5,095,173
Value of fuel used ..	£ 294,913	£ 322,936	£ 295,415	£ 239,782	£ 218,795
Value of materials used ..	£ 6,319,442	£ 6,667,634	£ 5,709,328	£ 3,930,683	£ 3,476,207
Total value of output ..	£ 16,338,583	£ 17,072,699	£ 15,615,590	£ 11,626,861	£ 9,782,841
Value of production ..	£ 9,724,228	£ 10,082,129	£ 9,610,847	£ 7,456,996	£ 6,087,839

(a) See § 9. 1.

(b) Government and Municipal only.

Up to recent years the growth of the railway and tramway systems, conjointly with heavy increases in passenger and goods traffic throughout Australia, resulted in corresponding activity in workshops engaged in the manufacture or repair of rolling-stock, etc. During the five years prior to 1929-30, the number of employees increased by more than 5,000, and the output rose from £12,384,177 to £17,072,699, but since that year there has been a decrease of over 5,000 employees, with a consequent heavy fall in output.

9. **Extracting and Refining of Other Metals and Alloys.**—The following table gives particulars of metal extraction and ore reduction works, other than those connected with iron and steel. The classification of these works is not uniform throughout the States, and the tabulation is, therefore, somewhat unsatisfactory. The returns do not include particulars of plants used on mines.

**EXTRACTING AND REFINING OF OTHER METALS AND ALLOYS, 1931-32.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories .. ..	0	5	8	1	..	2	25
Number of employees .. ..	618	39	145	918	..	994	2,714
Actual horse-power of engines used .. ..	7,896	53	989	(b)	..	(b)	c 51,550
Approx. value of land and buildings £ .. ..	205,812	14,805	4,291	(b)	..	(b)	c 690,855
Approx. value of plant and machinery £ .. ..	523,795	7,104	80,664	(b)	..	(b)	c 2,304,421
Wages paid .. ..	£ 168,115	6,137	35,229	(b)	..	(b)	c 708,511
Value of fuel used .. ..	£ 155,432	1,823	7,193	(b)	..	(b)	c 608,815
Value of materials used .. ..	£ 2,916,245	113,571	112,040	(b)	..	(b)	c 5,301,684
Total value of output .. ..	£ 3,598,072	129,467	136,127	(b)	..	(b)	c 7,324,786
Value of production .. ..	£ 526,395	14,073	16,894	(b)	..	(b)	c 1,414,287

(a) In Western Australia all the plants are worked on the mines, and are therefore not included.  
 (b) Information not available for publication. (c) Including South Australia and Tasmania.

10. **Bacon-curing Factories.**—(i) *Details for each State, 1931-32.* The table hereunder gives particulars of factories engaged in bacon-curing in each State for the year 1931-32 :—

**BACON-CURING FACTORIES, 1931-32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	22	20	8	9	7	7	73
Number of employees .. ..	286	501	526	204	62	41	1,620
Actual horse-power of engines used .. ..	1,027	2,160	1,523	506	272	135	5,623
Approximate value of land and buildings .. ..	£ 124,681	235,050	177,655	65,206	25,887	12,554	641,033
Approximate value of plant and machinery .. ..	£ 44,360	119,190	97,924	28,674	10,198	7,185	307,531
Wages paid .. ..	£ 83,666	107,643	115,516	39,520	13,575	6,329	366,249
Value of fuel used .. ..	£ 12,804	20,640	17,349	4,898	2,788	2,433	60,912
Value of materials used .. ..	£ 593,553	601,181	612,336	248,761	109,454	37,471	2,202,756
Total value of output .. ..	£ 748,059	848,367	947,895	328,416	136,579	53,589	3,062,905
Value of production .. ..	£ 141,702	226,546	318,210	74,737	24,337	13,685	799,237

(ii) *Quantity and Value of Production.* The number of pigs killed and the quantity and value of the production of bacon-curing factories in each State for the year 1931-32 are given hereunder :—

## BACON-CURING FACTORIES.—PIGS KILLED, AND PRODUCTION, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>PIGS KILLED.</b>							
Number .. ..	224,811	198,212	254,952	75,364	36,624	34,371	824,334
<b>PRODUCTS.</b>							
Bacon and ham .. lb.	19,442,931	16,833,907	19,639,692	26,408,730	23,240,306	1,160,630	66,726,196
Lard .. ..	470,669	853,108	1,083,818	267,208	115,480	69,651	2,859,934
<b>VALUE.</b>							
Bacon and ham .. £	650,420	625,020	649,585	227,461	118,642	43,447	2,314,575
Lard .. ..	11,283	21,880	23,303	5,648	2,857	2,514	67,485
Other products .. £	77,856	107,896	275,007	95,307	14,830	7,628	578,524

(a) A portion of the bacon and ham treated was imported or purchased.

Bacon and ham and other pig products are dealt with more fully in Chapter XIX., *Farmyard, Dairy, and Bee Products.*

11. **Butter, Cheese, and Condensed Milk Factories.**—(i) *Details for each State, 1931-32.* The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1931-32:—

## BUTTER, CHEESE, AND CONDENSED MILK FACTORIES, 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. ..	136	169	116	42	14	36	513
Number of employees .. ..	1,340	2,346	1,134	346	143	179	5,488
Actual horse-power of engines used .. ..	10,289	7,805	8,843	1,014	610	570	29,131
Approximate value of land and buildings .. .. £	693,527	1,019,348	541,512	167,907	74,103	48,848	2,545,245
Approximate value of plant and machinery .. .. £	823,159	986,617	687,438	103,262	60,644	54,609	2,715,729
Wages paid .. ..	338,987	509,885	239,284	57,737	28,533	27,783	1,202,209
Value of fuel used .. ..	87,035	139,411	48,016	14,725	7,194	7,166	303,547
Value of materials used .. ..	6,158,755	7,049,057	5,103,815	837,303	414,831	357,055	19,920,816
Total value of output .. ..	6,879,772	8,353,481	5,530,891	975,523	550,043	447,910	22,743,620
Value of production .. ..	633,982	1,165,013	385,060	123,495	128,018	83,689	2,519,257

(ii) *Development in Australia, 1927-28 to 1931-32.* The progress of this industry during the last five years is set out hereunder:—

## BUTTER, CHEESE, AND CONDENSED MILK FACTORIES.—AUSTRALIA.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories .. ..	563	523	509	506	513
Number of employees .. ..	5,520	(a) 5,441	(a) 5,276	(a) 5,129	(a) 5,488
Actual horse-power of engines used .. ..	22,668	24,219	25,223	26,843	29,131
Approx. value of land and buildings .. ..	2,392,225	2,366,789	2,538,589	2,530,861	2,545,245
Approx. value of plant and machinery .. ..	£ 2,604,018	£ 2,598,702	£ 2,735,185	£ 2,766,227	£ 2,715,729
Wages paid .. ..	£ 1,298,540	£ 1,289,000	£ 1,291,259	£ 1,228,100	£ 1,202,209
Value of fuel used .. ..	£ 342,404	£ 334,556	£ 355,811	£ 328,229	£ 303,547
Value of materials used .. ..	£ 20,529,240	£ 22,623,740	£ 21,791,835	£ 19,925,013	£ 19,920,816
Total value of output .. ..	£ 24,788,248	£ 26,365,690	£ 25,153,846	£ 23,200,709	£ 22,743,620
Value of production .. ..	£ 3,916,604	£ 3,407,394	£ 3,006,200	£ 2,947,467	£ 2,519,257

(a) See § 9. 1.

(iii) *Quantity and Value of Production.* The next table shows the quantity and value of butter, cheese, and condensed milk produced, and the quantity of milk used in butter, cheese, and condensed milk factories in each State for the year 1931-32 :—

**BUTTER, CHEESE AND CONDENSED MILK FACTORIES.—PRODUCTION, 1931-32.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>MILK USED (,000 OMITTED).</b>							
Butter factories .. gals.	250,358	289,571	201,267	27,104	16,372	17,741	802,413
Cheese factories .. "	6,939	7,423	11,008	4,752	..	885	31,007
Condensed milk factories .. "	(a)	7,995	(a)	(a)	(a)	..	(b) 7,995

<b>PRODUCTS (,000 OMITTED).</b>							
Butter .. .. lb.	118,448	127,982	95,051	13,829	8,348	7,016	370,674
Cheese .. .. "	6,477	7,657	11,016	5,095	..	875	31,120
Condensed and concentrated milk .. .. lb.	(a)	29,877	(a)	..	(a)	..	(b) 29,877
Powdered milk .. "	..	11,532	..	..	..	..	(b) 11,532

<b>VALUE (,000 OMITTED).</b>							
Butter .. .. £	6,347	6,914	5,197	798	536	418	20,210
Cheese .. .. £	234	317	338	155	..	27	1,071
Condensed and concentrated milk .. .. £	(a)	648	(a)	..	(a)	..	(b) 648
Powdered milk .. £	..	311	..	..	..	..	(b) 311

(a) Information not available for publication.

(b) Victoria only.

The butter, cheese, and condensed milk industries are dealt with more fully in the Chapter entitled "Farmyard, Dairy, and Bee Products."

12. *Meat and Fish Preserving Works.*—These industries are now of considerable importance. Works have been established at some of the seaports for the purpose of freezing produce chiefly for export, while insulated space for the carriage of frozen produce is provided by steamship companies trading between Australia and other parts of the world.

**MEAT AND FISH PRESERVING WORKS,(c) 1931-32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	9	21	8	1	3	4	46
Number of employees .. ..	306	1,015	1,279	2	224	8	2,834
Actual horse-power of engines used .. ..	296	4,287	7,634	(a)	690	(a)	b 12,918
Approximate value of land and buildings .. .. £	61,080	621,955	1,185,829	(a)	368,380	(a)	b2,240,131
Approximate value of plant and machinery .. .. £	23,264	364,785	672,119	(a)	383,319	(a)	b1,446,476
Wages paid .. .. £	59,948	181,582	372,142	(a)	52,196	(a)	b 666,974
Value of fuel used .. .. £	8,386	40,855	66,051	(a)	7,949	(a)	b 123,546
Value of materials used .. .. £	167,855	1,607,178	1,830,357	(a)	89,398	(a)	b3,697,362
Total value of output .. .. £	273,578	2,073,402	2,271,823	(a)	198,901	(a)	b4,822,412
Value of production .. .. £	97,337	425,369	375,415	(a)	101,554	(a)	b1,001,504

(a) Not available for publication.  
meat extracts.

(b) Including South Australia and Tasmania.

(c) Including

Particulars regarding the quantities and values of beef, mutton, and lamb preserved by cold process, exported from Australia over a series of years, will be found in Chapter XVII., *Pastoral Production*.

13. Bakeries.—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1931–32 is given in the table below.

**BAKERIES (INCLUDING CAKES AND PASTRY), 1931–32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	406	482	227	105	83	53	1,356
Number of employees .. ..	2,860	2,839	1,525	702	380	732	9,038
Actual horse-power of engines used .. ..	2,853	1,909	848	670	437	643	7,360
Approximate value of land and buildings .. ..	£ 1,558,426	1,030,860	365,712	254,655	142,986	301,691	3,654,330
Approximate value of plant and machinery .. ..	£ 497,307	377,371	159,206	86,528	40,372	66,884	1,227,668
Wages paid .. ..	£ 582,864	446,127	230,837	106,476	59,616	107,046	1,532,966
Value of fuel used .. ..	£ 90,707	82,256	28,426	16,734	8,918	15,347	242,388
Value of materials used .. ..	£ 1,650,919	1,415,935	640,096	324,810	175,258	237,205	4,442,283
Total value of output .. ..	£ 2,783,356	2,475,992	1,243,078	533,651	309,861	423,101	7,769,639
Value of production .. ..	£ 1,041,730	977,801	575,156	192,107	127,685	170,489	3,081,968

(a) Includes Biscuits and Confectionery.

14. Jam and Fruit Preserving, Pickles, Sauces, and Vinegar Factories.—(i) *Details for each State, 1931–32.* The subjoined table gives particulars of factories included in this class for the year 1931–32.

**JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1931–32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	36	43	12	15	8	7	121
Number of employees .. ..	931	1,751	608	406	49	355	4,130
Actual horse-power of engines used .. ..	1,727	2,097	212	328	82	1,265	5,711
Approximate value of land and buildings .. ..	£ 301,104	465,558	40,790	110,504	18,772	101,183	1,037,911
Approximate value of plant and machinery .. ..	£ 130,301	280,660	28,343	63,702	5,460	30,596	548,062
Wages paid .. ..	£ 149,652	265,190	52,838	53,016	5,501	91,715	617,912
Value of fuel used .. ..	£ 17,558	26,937	2,889	5,892	574	7,982	61,832
Value of materials used .. ..	£ 585,143	1,279,112	294,099	239,476	32,938	354,901	2,785,669
Total value of output .. ..	£ 975,203	1,958,124	371,107	346,077	44,901	515,576	4,210,988
Value of production .. ..	£ 372,502	652,075	74,119	100,709	11,389	152,693	1,363,487

(ii) *Development in Australia, 1927–28 to 1931–32.* Particulars in connexion with these establishments in Australia for the last five years are given hereunder.

**JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES.—AUSTRALIA.**

Items.	1927–28.	1928–29.	1929–30.	1930–31.	1931–32.
Number of factories .. ..	167	121	121	111	121
Number of employees .. ..	6,627	(a) 5,478	(a) 4,780	(a) 3,803	(a) 4,130
Actual horse-power of engines used .. ..	5,215	5,198	6,101	5,308	5,711
Approx. value of land and buildings .. ..	£ 1,177,963	1,058,445	1,064,661	984,464	1,037,911
Approx. value of plant and machinery .. ..	£ 748,888	601,229	567,833	546,362	548,062
Wages paid .. ..	£ 1,049,136	869,144	873,508	627,209	617,912
Value of fuel used .. ..	£ 92,373	78,422	83,634	61,588	61,832
Value of materials used .. ..	£ 3,703,161	3,030,762	3,290,268	2,354,034	2,785,669
Total value of output .. ..	£ 5,967,876	5,054,595	5,178,438	3,686,333	4,210,988
Value of production .. ..	£ 2,172,342	1,945,411	1,804,536	1,270,711	1,363,487

(a) See § 9. i.



The progress of the jam-making industry was very marked during the war years, when large quantities were exported overseas for the supply of army requirements. With the loss of this trade on the termination of the war, production declined considerably, and in 1931-32 amounted to only 81,903,647 lb., compared with 142,290,204 in 1918-19. The output of preserved fruit has greatly increased, and in 1931-32, 59,249,535 lb. were processed. The production of pickles and sauces, however, showed a further decline.

(iii) *Production.* The following table shows the quantity and value of jams, pickles and sauces manufactured in each State in 1931-32 :—

### JAMS, PRESERVED FRUIT, PICKLES AND SAUCES.—OUTPUT, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Jams .. .. lb.	16,629	33,477	7,763	9,091	531	14,413	81,904
Pulp .. .. "	4,317	14,928	825	5,982	353	6,992	33,397
Fruit, preserved .. "	7,164	39,770	5,515	2,960	9	3,831	59,249
Pickles .. .. pints	719	725	247	655	(a)	(a)	(b) 2,542
Sauces .. .. "	5,096	5,529	943	665	(a)	(a)	(b) 12,744
VALUE.							
Jams .. .. £	386,416	729,766	167,605	163,627	10,308	323,630	1,781,352
Pulp .. .. £	30,159	74,574	4,525	39,091	1,012	87,151	236,512
Fruit, preserved .. £	120,740	694,368	130,393	49,949	152	95,513	1,091,115
Pickles .. .. £	25,620	23,264	9,304	28,415	(a)	(a)	(b) 93,986
Sauces .. .. £	251,669	169,268	27,653	28,973	(a)	(a)	(b) 494,044

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

15. *Confectionery Factories.*—(i) *Details for each State, 1930-31.* At the close of the year 1900 there were in New South Wales 16 establishments, with 706 employees, and in Victoria 16 establishments, employing 731 persons, the plant and machinery in the former State being valued at £2,815, and in the latter at £19,070. The figures for the year 1931-32 given hereunder show the remarkable development since 1900 :—

### SUGAR CONFECTIONERY FACTORIES,(b) 1931-32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	63	118	10	17	11	4	223
Number of employes .. ..	2,675	2,572	461	338	207	17	6,270
Actual horse-power of engines used .. ..	4,598	6,200	867	575	264	70	12,574
Approximate value of land and buildings .. .. £	1,011,568	453,325	165,027	97,822	58,698	11,050	1,797,490
Approximate value of plant and machinery .. .. £	974,131	631,331	118,107	78,226	73,950	6,997	1,882,742
Wages paid .. .. £	382,020	358,529	56,779	32,211	31,028	995	861,562
Value of fuel used .. .. £	46,400	46,435	5,232	9,361	4,067	294	111,789
Value of materials used .. .. £	1,111,744	895,271	94,758	107,541	64,538	2,740	2,276,592
Total value of output .. .. £	2,148,985	1,646,320	236,707	166,563	194,115	5,966	4,398,656
Value of production .. .. £	990,841	704,614	136,717	49,661	125,510	2,932	2,010,275

(a) Ice Cream factories—Other Confectionery included in Bakeries. and Ice Cream.

(b) Including Chocolate

(ii) *Development in Australia, 1927-28 to 1931-32.* The growth of the confectionery industry during the last five years is exhibited in the following table :—

**SUGAR CONFECTIONERY FACTORIES.—AUSTRALIA.**

Items.	1927-28. (a)	1928-29. (a)	1929-30. (c)	1930-31. (d)	1931-32. (d)
Number of factories .. ..	293	320	254	220	223
Number of employees .. ..	8,616	(b) 8,386	(b) 7,260	(b) 6,241	(b) 6,270
Actual horse-power of engines used ..	14,241	12,737	12,432	11,014	12,574
Approx. value of land and buildings ..	£ 2,074,074	2,201,885	2,007,492	1,788,358	1,797,490
Approx. value of plant and machinery ..	£ 2,324,479	2,368,208	2,248,470	1,987,197	1,882,742
Wages paid .. ..	£ 1,365,241	1,335,997	1,167,654	931,991	861,562
Value of fuel used .. ..	£ 186,323	183,787	167,526	118,245	111,789
Value of materials used .. ..	£ 4,054,201	3,998,906	3,549,673	2,590,032	2,276,592
Total value of output .. ..	£ 7,300,429	7,455,428	6,567,759	4,832,952	4,398,656
Value of production .. ..	£ 3,059,905	3,272,735	2,850,560	2,124,675	2,010,275

(a) Including Biscuits and Bakeries in Tasmania. (b) See § 9. i. (c) Figures for Tasmania included in Bakeries. (d) See note (a) in table above.

The confectionery industry has expanded considerably during recent years, largely as a result of the stimulus afforded by the embargo placed on the importation of luxuries during the period of the war. The establishments engaged therein found employment for 6,270 persons in 1931-32, and the value of the output amounted to £4,398,656. The decline in the value of output, etc., since 1929-30 is due to the exclusion of the returns for Tasmania, which have been incorporated with bakeries to avoid disclosing confidential information. Production is sufficient to supply local requirements, and an export trade is being developed. Several large British manufacturers of confectionery have established branch works in Australia.

16. *Grain Milling.*—(i) *Details for States, 1931-32.* The following table shows the position of the flour-milling industry in each State in 1931-32 :—

**GRAIN MILLING, 1931-32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories ..	53	39	9	36	19	9	165
Number of employees ..	1,182	957	387	443	385	104	3,458
Actual horse-power of engines used ..	7,509	5,760	1,416	3,365	2,775	521	21,346
Approximate value of land and buildings ..	£ 760,852	476,250	156,036	202,820	228,633	59,934	1,884,525
Approximate value of plant and machinery ..	£ 776,444	508,905	203,532	321,521	253,647	44,537	2,108,586
Wages paid ..	£ 291,447	217,142	80,408	90,884	79,675	24,513	784,069
Value of fuel used ..	£ 79,838	52,346	14,482	27,219	20,024	4,595	204,504
Value of materials used ..	£ 3,582,629	2,806,382	848,372	1,085,368	983,269	208,739	9,604,759
Total value of output ..	£ 4,007,595	3,622,593	1,109,731	1,253,372	1,145,894	265,765	12,004,950
Value of production ..	£ 945,128	667,865	246,877	140,785	142,601	52,431	2,195,687

(a) The manufacture of cornflour, oatmeal, etc., was also carried on in some of these establishments.

(ii) *Production of Flour and By-products, 1927-28 to 1931-32.* The production of flour by the mills in each State for the years indicated was as follows :—

**GRAIN MILLING.—PRODUCTION OF FLOUR, AUSTRALIA.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)
1927-28 ..	400,363	367,383	53,858	122,107	127,246	21,675	1,092,632
1928-29 ..	449,011	390,286	54,433	137,202	119,550	21,277	1,171,759
1929-30 ..	432,472	364,682	61,102	138,115	120,595	19,899	1,136,865
1930-31 ..	449,439	369,966	71,994	136,346	132,090	19,863	1,179,698
1931-32 ..	490,662	396,257	77,376	155,215	131,165	19,540	1,270,215

(a) Tons of 2,000 lb.

The production of flour in Australia for the last year, viz., 1,270,215 tons, was valued at £9,292,926. In addition, 546,888 tons of bran and pollard, valued at £2,455,826, were made. The quantity of wheat ground was 61,310,630 bushels.

17. Sugar Mills.—(i) *Details for 1931-32.* The following table shows the position of the cane-crushing branch of the sugar-making industry in Queensland and New South Wales in 1931-32. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XVIII., *Agricultural Production.*

## SUGAR MILLS, 1931-32.

Items.	N.S.W.	Queensland.	Australia.
Number of factories .. .. .	3	35	38
Number of employes .. .. .	124	5,114	5,238
Actual horse-power of engines used ..	2,756	37,335	40,091
Approximate value of land and buildings £	134,000	765,306	899,306
Approximate value of plant and machinery £	540,813	6,599,847	7,140,660
Wages paid .. .. .	£ 62,261	1,140,989	1,203,250
Value of fuel used .. .. .	£ 9,144	109,235	118,379
Value of materials used .. .. .	£ 336,798	7,901,450	8,238,248
Total value of output .. .. .	£ 512,581	10,519,615	11,032,196
Value of production .. .. .	£ 166,639	2,508,930	2,675,569

The products of the sugar mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Part of the molasses produced is used for distillation, part is prepared for human consumption, part is turned into food-cake for cattle, part is used for manuring land, and the balance is either burnt as fuel or is allowed to run to waste. This latter quantity, however, is being reduced each year.

(ii) *Progress of Industry.* (a) *New South Wales.* The following table shows the progress of this industry in New South Wales since 1927-28 :—

## SUGAR MILLS.—NEW SOUTH WALES.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories ..	3	3	3	3	3
Number of employes ..	413	(a) 375	(a) 170	(a) 135	(a) 124
Cane crushed .. tons	208,612	147,414	174,110	160,209	179,153
Sugar produced .. tons	23,349	16,954	19,568	18,841	22,459
Molasses produced gals.	1,196,700	914,000	1,064,405	918,800	940,600

(a) See § 9. 1.

The concentration of cane-crushing in establishments fitted with modern machinery has caused the closing of the small home mill and thereby reduced the number of mills operating. The stability afforded the industry by the Government assistance referred to in the chapter dealing with Agriculture, has resulted in considerable progress in the cultivation of sugar-cane, and increased activity in milling. Particulars regarding cane crushed and sugar produced embodied in these tables refer to the quantities treated during the twelve months ending 30th June in each year, irrespective of the season in which the cane was grown. The figures relating to cane crushed and sugar produced shown hereunder, differ therefore, from those given in Chapter XVIII., *Agriculture*, which refer to harvest years.

(b) *Queensland.* Details for Queensland from 1911 and for the last four years are given hereunder.

## SUGAR MILLS.—QUEENSLAND, 1911 TO 1931-32.

Items.	1911.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories ..	49	35	35	35	35
Number of employees ..	4,295	(a) 6,077	(a) 5,459	(a) 5,138	(a) 5,114
Cane crushed .. tons	1,534,451	3,741,715	3,572,068	3,539,475	4,033,889
Sugar produced .. tons	173,296	516,081	513,551	514,296	579,222
Molasses—					
Sold to distillers and others .. gals.	2,393,669	5,676,821	5,854,398	4,529,352	3,282,351
Used as fodder .. gals.	789,564	2,524,136	2,382,192	2,342,609	2,940,551
Used as manure .. gals.	223,000	7,200	298,395	714,670	1,753,086
Run to waste .. gals.		3,044,889	2,253,083	1,311,453	910,418
Burnt as fuel .. gals.	1,847,333	5,131,726	4,202,588	4,354,350	7,075,965
In stock .. gals.	1,197,626	488,600	871,292	1,206,050	1,350,769
Total Molasses .. gals.	6,451,192	16,873,372	15,861,948	14,458,484	17,313,140

(a) See § 9. 1.

18. *Sugar Refineries.*—The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated on in the earlier years coming chiefly from Mauritius and the East. In 1931-32 there were two sugar refineries in each of the States of Victoria and Queensland, and one in each of the States of New South Wales, South Australia, and Western Australia. The quantity of raw sugar treated amounted to 298,876 tons, for a yield of 297,628 tons of refined sugar, valued at £10,518,284.

19. *Breweries.*—(i) *Details for each State, 1931-32.* The following table gives particulars concerning breweries in each State:—

## BREWERIES, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of breweries ..	5	9	9	6	8	4	41
Number of employees ..	811	1,041	339	240	362	89	2,882
Actual horse-power of engines used ..	5,427	4,011	1,928	1,358	1,975	648	15,347
Approx. value of land and buildings .. £	845,264	716,186	290,663	181,823	203,216	163,563	2,400,715
Approx. value of plant and machinery .. £	869,217	952,830	265,604	180,066	244,593	127,073	2,639,383
Wages paid .. £	226,194	362,327	94,518	76,329	106,863	23,408	889,639
Value of fuel used .. £	63,388	60,654	23,186	16,027	15,821	8,376	187,452
Value of materials used .. £	571,585	762,526	165,851	137,492	207,795	44,674	1,889,923
Total value of output .. £	1,911,468	1,751,407	469,380	344,659	518,022	138,089	5,133,025
Value of production .. £	1,276,495	928,227	280,343	191,140	294,406	85,039	3,055,650

(a) Includes malting.

(ii) *Development in Australia, 1927-28 to 1931-32.* The next table shows the progress of this industry for the last five years:—

### BREWERIES.—AUSTRALIA.

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of breweries .. ..	46	45	45	43	41
Number of employes .. ..	3,881	(a) 3,874	(a) 3,590	(a) 3,109	(a) 2,882
Actual horse-power of engines used ..	14,688	14,217	14,300	15,558	15,347
Approx. value of land and buildings ..	£ 2,347,851	2,476,207	2,457,428	2,447,942	2,406,715
Approx. value of plant and machinery ..	£ 2,853,623	2,912,078	2,956,907	2,865,987	2,639,383
Wages paid .. ..	£ 1,208,091	1,208,699	1,165,380	992,698	889,639
Value of fuel used .. ..	£ 272,151	295,908	276,199	230,958	187,452
Value of materials used .. ..	£ 3,318,521	3,310,659	2,887,251	2,146,331	1,889,923
Total value of output .. ..	£ 7,964,626	7,921,010	7,259,933	5,828,193	5,133,025
Value of production .. ..	£ 4,373,954	4,314,443	4,095,483	3,450,904	3,055,650

(a) See § 9. 1.

The main feature in the history of the brewing industry, which was established at an early date in Australia, was the change from the small local brewery in every township of moderate size to the large centralized city brewery. During the period embraced in the above table, however, the reduction in the number of establishments was mainly due to amalgamations. The value of the output of breweries in Australia decreased from £7,964,626 in 1927-28 to £5,113,025 in 1931-32, and the quantity of ale and stout brewed fell from 74,035,403 to 49,845,996 gallons during the same period. The consumption of ale and stout per head of the population remained fairly steady for several years at about 11.25 gallons. In 1929-30 the average fell to 10.25 gallons, in 1930-31 to 8.12 gallons, and in 1931-32 to 7.32 gallons.

(iii) *Materials Used and Production.* The table below shows the quantity of raw material used and the quantity and value of ale and stout brewed in each State during the year 1931-32.

### BREWERIES.—MATERIALS USED AND PRODUCTION, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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#### RAW MATERIAL USED.

Malt .. bushels	586,106	619,055	181,896	117,100	162,461	35,974	1,702,592
Hops .. lb.	539,455	545,609	146,330	120,150	140,604	27,028	1,519,176
Sugar .. cwt.	61,086	69,868	19,542	14,756	14,660	3,492	183,404

#### RAW MATERIAL USED PER 1,000 GALLONS OF ALE AND STOUT PRODUCED.

Malt .. bushels	33.79	33.10	34.44	33.80	37.21	52.83	34.16
Hops .. lb.	31.10	29.17	27.70	34.68	32.20	39.69	30.48
Sugar .. cwt.	3.52	3.74	3.70	4.26	3.36	5.13	3.70

#### ALE AND STOUT BREWED.

Quantity gallons	17,346,770	18,705,325	5,282,022	3,464,856	4,366,461	680,562	49,845,996
Value (a) .. £	1,892,617	1,751,407	469,380	341,384	513,822	72,395	5,041,005

(a) Exclusive of excise duty.

20. Distilleries.—Distilleries are located in all the States with the exception of Western Australia and Tasmania. The following information which has been extracted from returns furnished by the Excise Branch of the Department of Trade and Customs shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the year 1931-32:—Materials used; barley 352,878 bushels; rye 2,979 bushels; maize 6,468 bushels; molasses 648,459 cwt.; wine 8,221,188 gallons; raisins and currants 17,759 cwt.; spirits distilled from barley 936,063 gallons; from molasses 3,370,029 gallons; from wine 1,421,379 gallons; from other materials 954 gallons; total 5,728,423 gallons. The quantity of spirits denatured during the year was 2,120,451 gallons.

21. Tobacco, etc., Factories.—(i) *Details for each State, 1931-32.* During the year 1931-32 there were twenty-four establishments in which the manufacture of tobacco, cigars, and cigarettes was carried on. There were no factories engaged in this industry in Tasmania.

**TOBACCO, CIGAR, AND CIGARETTE FACTORIES, 1931-32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Number of factories .. ..	9	12	1	1	1	24
Number of employees .. ..	2,263	1,719			122	4,119
Actual horse-power of engines used .. ..	1,181	904	(a) 4	(a) 11	(a) b	2,133
Approx. value of land and buildings .. ..	£ 572,815	324,395	(a)	(a)	(a)	b 912,541
Approx. value of plant and machinery .. ..	£ 425,977	220,875	(a)	(a)	(a)	b 656,862
Wages paid .. ..	£ 454,421	327,319	(a)	(a)	(a)	b 800,702
Value of fuel used .. ..	£ 15,730	9,804	(a)	(a)	(a)	b 26,013
Value of materials used .. ..	£ 3,862,098	1,532,320	(a)	(a)	(a)	b 5,448,396
Total value of output .. ..	£ 4,834,876	2,343,746	(a)	(a)	(a)	b 7,299,324
Value of production .. ..	£ 957,048	800,113	(a)	(a)	(a)	b 1,824,915

(a) Not available for publication. (b) Including Queensland, South Australia and Western Australia.

(ii) *Development in Australia.* This industry was among the first to be established in Australia. In 1861, New South Wales had 11 factories, producing 177,744 lb. of manufactured tobacco; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1931-32 comprised—manufactured tobacco 81,238 lb., cigars 3,668 lb., and cigarettes 32,493 lb., while the quantities manufactured in Australian factories were respectively 14,084,193 lb., 225,128 lb., and 4,190,854 lb. The following tables show the development of the industry in Australia for the last five years:—

**TOBACCO, CIGAR, AND CIGARETTE FACTORIES.—AUSTRALIA.**

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories .. ..	23	23	23	22	24
Number of employees .. ..	4,217	(a) 4,137	(a) 4,096	(a) 4,154	(a) 4,119
Actual horse-power of engines used .. ..	1,684	1,946	1,986	2,009	2,133
Approx. value of land and buildings .. ..	£ 783,895	794,421	857,787	857,540	912,541
Approx. value of plant and machinery .. ..	£ 510,651	543,462	565,556	618,377	656,862
Wages paid .. ..	£ 818,985	808,865	818,342	807,348	800,702
Value of fuel used .. ..	£ 21,091	24,115	24,941	24,685	26,013
Value of materials used .. ..	£ 4,492,363	4,427,806	5,111,443	4,831,775	5,448,396
Total value of output .. ..	£ 6,817,391	6,812,791	7,523,114	6,842,394	7,299,324
Value of production .. ..	£ 2,303,037	2,360,870	2,386,730	1,985,934	1,824,915

**LEAF USED AND PRODUCTION.**

Leaf used .. ..	1,000 lb.	18,620.	19,136.	19,175.	16,456.	16,425.
Tobacco made .. ..	"	15,097.	15,678.	16,064.	14,242.	14,084.
Cigars made .. ..	"	399.	339.	307.	224.	225.
Cigarettes made .. ..	"	5,391.	5,358.	5,371.	4,225.	4,191.

(a) See § 9. 1.

The production of locally-grown leaf for many years was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw material. Increased duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 million lb. in 1929-30 to over 3 million lb. in 1930-31, with a resultant decrease in the amount of imported leaf used. In 1931-32, however, the quantity of local leaf used fell to 2.3 million lb. In this connexion, see item "Tobacco" in Chapter XVIII., Agricultural Production. The respective quantities of Australian and imported leaf used during 1931-32 were 2,349,041 lb., and 14,075,575 lb.

22. Woollen and Tweed Mills.—(i) *Details for each State, 1931-32.* The manufacture of woollens and tweeds was established at an early period in Australian history and was under Government control, the first record in New South Wales dating back to 1801, when a few blankets were made by convicts, while manufacture in Victoria dates from 1867. The following table gives particulars for the year 1931-32 :—

WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1931-32.

Items.	N.S.W. (c)	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. ..	15	34	15	9	2	6	81
Number of employees .. ..	3,882	7,144	603	499	106	1,373	13,607
Actual horse-power of engines used	8,472	15,530	(a)	(a)	(a)	2,246	30,298
Approx. value of land and buildings	£ 615,320	£ 1,143,730	(a)	(a)	(a)	265,850	£ 2,232,015
Approx. value of plant and machinery .. ..	£ 1,021,546	£ 1,650,695	(a)	(a)	(a)	310,120	£ 3,381,308
Wages paid .. ..	£ 609,911	£ 1,008,463	(a)	(a)	(a)	164,891	£ 1,945,879
Value of fuel used .. ..	£ 81,167	£ 166,378	(a)	(a)	(a)	42,604	£ 322,532
Value of materials used .. ..	£ 1,239,400	£ 2,200,887	(a)	(a)	(a)	347,041	£ 4,893,757
Total value of output .. ..	£ 2,146,026	£ 4,134,830	(a)	(a)	(a)	742,684	£ 8,452,029
Value of production .. ..	£ 825,459	£ 1,767,565	(a)	(a)	(a)	353,039	£ 3,235,740

(a) Information not available for publication. (b) Including Queensland, South Australia, and Western Australia. (c) Woolscouring not included.

(ii) *Development in Australia, 1927-28 to 1931-32.* The progress of woollen and tweed milling in Australia for the last five years is shown in the following table :—

WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING).—AUSTRALIA.

Items.	1927-28. (b)	1928-29. (b)	1929-30. (b)	1930-31.	1931-32.
Number of factories .. ..	57	53	58	92	81
Number of employees .. ..	11,638	(a) 11,430	(a) 11,843	(a) 11,551	(a) 13,607
Actual horse-power of engines used	23,158	24,748	26,407	27,453	30,298
Approx. value of land and buildings	£ 1,933,654	£ 1,984,124	£ 2,124,486	£ 2,305,858	£ 2,232,015
Approx. value of plant and machinery	£ 3,688,023	£ 3,487,795	£ 3,553,493	£ 3,567,670	£ 3,381,308
Wages paid .. ..	£ 1,755,538	£ 1,766,820	£ 1,780,514	£ 1,633,432	£ 1,945,879
Value of fuel used .. ..	£ 272,578	£ 270,995	£ 298,212	£ 301,428	£ 322,532
Value of materials used .. ..	£ 4,172,120	£ 4,363,482	£ 3,758,577	£ 3,756,418	£ 4,893,757
Total value of output .. ..	£ 7,601,435	£ 7,477,295	£ 6,964,160	£ 6,758,788	£ 8,452,029
Value of production .. ..	£ 3,156,737	£ 2,842,818	£ 2,907,371	£ 2,700,942	£ 3,235,740

(a) See § 9. 1.

(b) Excluding Woolscouring.

(iii) *Quantity and Value of Production.* The production consists chiefly of tweed cloths, flannels, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. Detailed particulars for the several States are not available for publication. The total length of tweed and cloth manufactured in Australia in 1931-32 was 16,631,833 yards. In New South Wales 5,548,430 yards, and in Victoria 10,111,143 yards of tweed and cloth were manufactured. The production of flannel amounted to 8,313,069 yards, while blankets, shawls, and rugs to the number of 439,605 were made. The output of yarn reported was 9,505,335 lb., most of which was produced in Victoria.

In addition to the woollen and tweed factories, there were 290 hosiery and knitting mills operating in Australia in 1931-32. These establishments provided employment for 12,470 persons, of whom 9,058 were females, and the value of their output amounted to £5,803,011.

Cotton ginning has been carried on intermittently in the Northern States, and the recent development in cotton growing has led to the establishment of modern ginning plants at convenient centres in Queensland. In New South Wales the first establishment for the manufacture of cotton goods was erected in 1923-24. There were nineteen establishments treating cotton in Australia in 1931-32, and these employed 1,659 hands, while the value of the output was £999,699.

23. *Boot Factories.*—(i) *Boot and Shoe Factories, 1931-32.* The boot and shoe industry holds an important place in regard to employment afforded and extent of output. The operations of these factories have been rather obscured in recent years by the inclusion of a large number of repair establishments in the returns, but this difficulty has been avoided by the collection of separate statistics for each industry, and in the following table the details relate to boot and shoe factories, as distinct from those devoted to repairing and bespoke work :—

## BOOT AND SHOE FACTORIES, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	92	176	17	15	8	5	313
Number of employees .. ..	3,861	8,656	921	432	316	114	14,300
Actual horse-power of engines used .. ..	1,574	2,835	265	266	216	58	5,214
Approx. value of land and buildings .. ..	£ 377,479	760,310	69,483	74,257	38,508	13,245	1,333,282
Approx. value of plant and machinery .. ..	£ 223,235	469,182	40,536	22,871	25,578	5,374	786,776
Wages paid .. ..	£ 543,899	1,223,181	118,256	54,887	41,725	15,551	1,997,499
Value of fuel used .. ..	£ 13,604	33,959	2,205	1,514	1,143	579	53,004
Value of materials used .. ..	£ 860,788	1,957,026	135,318	92,271	86,902	21,042	3,133,347
Total value of output .. ..	£ 1,634,148	3,773,432	296,183	160,733	142,226	49,072	6,055,794
Value of production .. ..	£ 759,756	1,782,447	158,660	66,948	54,181	27,451	2,849,443

(ii) *Boot Repairing, including Bespoke Work.* The introduction of small power plants in repairing shops has for statistical purposes brought this class of establishment within the meaning of a factory. These shops have spread rapidly throughout the Commonwealth, and in 1931-32 the number amounted to 1,168, in which 1,916 hands were employed. The sum of £120,507 was distributed in salaries and wages, and the output was valued at £629,452.



(iii) *Quantity and Value of Production.* The number and value of boots, shoes, and slippers made at factories in each State are shown in the following table :—

**BOOT AND SHOE FACTORIES.—OUTPUT, 1931-32.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Boots and shoes	3,173	7,570	536	344	353	73	12,049
Slippers	1,496	3,057	3	21	82	1	4,660
Uppers (a)	32	12	147	4	..	4	199
VALUE.							
Boots and shoes	£ 1,450,703	3,361,895	278,281	154,795	130,747	46,448	5,422,869
Slippers	£ 178,100	394,515	1,033	2,319	11,687	654	588,308
Uppers (a)	£ 10,123	5,106	16,367	2,224	187	1,280	35,287

(a) Made for other than factory use.

24. *Tailoring, and Slop Clothing Factories.*—(i) *Details for each State, 1931-32.* The importance of this industry in the several States is shown in the following table :—

**TAILORING AND SLOP CLOTHING FACTORIES, 1931-1932.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	326	387	95	100	73	25	1,006
Number of employees .. ..	6,603	6,263	2,132	801	1,369	302	17,470
Actual horse-power of engines used	663	596	157	118	89	24	1,647
Approx. value of land and buildings	£ 1,078,765	845,550	227,901	259,473	170,027	72,666	2,654,382
Approx. value of plant and machinery	£ 97,213	94,415	29,441	19,279	13,123	3,505	256,976
Wages paid	£ 742,921	674,143	198,944	125,412	89,348	28,500	1,859,268
Value of fuel used	£ 16,133	19,423	5,143	4,127	2,218	754	47,798
Value of materials used	£ 1,148,586	1,487,272	290,374	134,635	157,975	39,958	3,258,800
Total value of output	£ 2,234,413	2,555,554	657,018	327,698	295,358	88,592	6,158,633
Value of production .. ..	£ 1,069,694	1,048,859	361,501	188,936	135,165	47,880	2,852,035

(ii) *Development in Australia, 1927-28 to 1931-32.* The tailoring and slop branch of the clothing industry made little progress during the four years ended 1928-29. The number of factories and number of persons employed decreased, but the value of raw material used and output remained fairly constant. The considerable decline in the industry since 1929-30 is due to a decrease in the purchasing power of the community. Details for the past five years are as follow :—

**TAILORING, AND SLOP CLOTHING FACTORIES.—AUSTRALIA.**

Items.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
Number of factories .. ..	1,422	1,440	1,327	1,112	1,006
Number of employees .. ..	27,401	(a) 26,953	(a) 23,016	(a) 17,664	(a) 17,470
Actual horse-power of engines used	1,954	1,802	2,062	1,683	1,647
Approx. value of land and buildings	£ 4,364,779	4,389,473	4,151,355	3,272,248	2,654,382
Approx. value of plant and machinery	£ 379,757	337,057	328,676	278,696	256,976
Wages paid	£ 3,616,157	3,524,994	3,190,686	2,058,597	1,859,268
Value of fuel used	£ 65,946	65,100	63,011	50,717	47,798
Value of materials used	£ 5,121,106	5,092,739	4,473,949	3,119,083	3,258,800
Total value of output	£ 10,827,374	10,663,874	9,222,595	6,307,261	6,158,633
Value of production .. ..	£ 5,640,322	5,445,035	4,685,545	3,137,461	2,852,035

(a) See § 9. 1.

25. Dressmaking and Millinery Establishments.—(i) *Details for each State, 1931–32.* Particulars of dressmaking and millinery establishments are given separately in the following tables :—

## DRESSMAKING ESTABLISHMENTS, 1931–32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	95	377	31	40	36	14	593
Number of employees .. ..	1,191	5,918	417	578	416	103	8,623
Actual horse-power of engines used .. ..	81	594	22	54	46	8	805
Approx. value of land and buildings .. ..	£ 212,369	877,721	50,331	76,104	58,445	12,810	1,287,780
Approx. value of plant and machinery .. ..	£ 12,297	88,637	6,721	6,954	5,211	961	120,781
Wages paid .. ..	£ 105,653	563,882	35,597	44,544	32,609	7,511	789,796
Value of fuel used .. ..	£ 1,642	11,426	583	1,163	725	131	15,670
Value of materials used .. ..	£ 112,735	1,308,367	41,075	57,282	51,833	6,131	1,577,423
Total value of output .. ..	£ 263,017	2,257,809	87,449	128,078	107,866	16,209	2,860,428
Value of production .. ..	£ 148,640	938,016	45,791	69,633	55,308	9,947	1,267,335

(a) Includes Millinery.

## MILLINERY ESTABLISHMENTS, 1931–32.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	42	71	9	7	9	(a)	138
Number of employees .. ..	838	1,452	146	208	80	(a)	2,724
Actual horse-power of engines used .. ..	74	148	7	10	5	(a)	244
Approx. value of land and buildings .. ..	£ 133,505	194,131	20,284	21,850	10,005	(a)	379,775
Approx. value of plant and machinery .. ..	£ 7,849	31,172	1,434	1,453	511	(a)	42,419
Wages paid .. ..	£ 82,192	136,553	12,716	16,825	7,472	(a)	255,758
Value of fuel used .. ..	£ 1,787	4,406	96	435	114	(a)	6,838
Value of materials used .. ..	£ 156,936	265,022	23,331	26,486	12,714	(a)	484,489
Total value of output .. ..	£ 297,103	493,186	40,485	55,989	23,026	(a)	909,789
Value of production .. ..	£ 138,380	223,758	17,058	29,068	10,198	(a)	418,462

(a) Included in Dressmaking.

(ii) *Development in Australia, 1927–28 to 1931–32.* The development of dressmaking and millinery establishments in Australia for the past five years is shown in the following table :—

## DRESSMAKING AND MILLINERY ESTABLISHMENTS.—AUSTRALIA.

Items.	1927–28.	1928–29.	1929–30.	1930–31.	1931–32.
Number of factories .. ..	916	897	816	724	731
Number of employees .. ..	15,019	(a) 14,778	(a) 12,709	(a) 10,396	11,347
Actual horse-power of engines used .. ..	898	1,182	971	907	1,049
Approx. value of land and buildings .. ..	£ 2,596,384	2,570,963	2,310,358	1,904,825	1,667,555
Approx. value of plant and machinery .. ..	£ 170,653	175,151	157,051	151,460	163,200
Wages paid .. ..	£ 1,525,947	1,532,734	1,399,256	1,066,438	1,045,554
Value of fuel used .. ..	£ 25,054	24,056	23,842	20,657	22,508
Value of materials used .. ..	£ 2,590,753	2,724,974	2,501,600	1,993,968	2,061,912
Total value of output .. ..	£ 5,034,713	5,227,620	4,753,906	3,680,918	3,770,217
Value of production .. ..	£ 2,418,906	2,478,590	2,228,464	1,666,293	1,685,797

(a) See § 9. 1.

26. **Printing and Binding Works.**—(i) *Details for each State, 1931–32.* Printing and binding works rank high in importance among the industries of Australia, and in 1931–32 afforded employment for about 23,000 employees, and paid more than £4,582,000 in salaries and wages, while the value of output amounted to £12,033,000.

The following table gives particulars of establishments engaged in general printing and bookbinding in each State for the year 1931–32. Government printing works are included, but establishments producing newspapers and periodicals are shown separately in the next table.

**GENERAL PRINTING AND BOOKBINDING ESTABLISHMENTS, 1931–32.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	270	359	65	89	60	16	859
Number of employees ..	4,901	5,144	1,613	1,361	639	248	13,906
Actual horse-power of engines used ..	3,789	4,141	781	1,360	634	150	10,855
Approx. value of land and buildings ..	£ 1,319,758	£ 1,333,045	£ 358,331	£ 555,060	£ 245,715	£ 39,805	£ 3,851,714
Approx. value of plant and machinery ..	£ 1,096,689	£ 963,059	£ 202,795	£ 446,037	£ 176,159	£ 37,535	£ 2,922,274
Wages paid ..	£ 889,070	£ 798,450	£ 260,427	£ 236,794	£ 108,415	£ 41,194	£ 2,334,350
Value of fuel used ..	£ 29,214	£ 29,109	£ 8,750	£ 10,009	£ 3,559	£ 2,071	£ 82,712
Value of materials used ..	£ 986,469	£ 831,294	£ 190,338	£ 286,238	£ 98,008	£ 21,823	£ 2,414,170
Total value of output ..	£ 2,483,640	£ 2,212,400	£ 633,397	£ 692,671	£ 275,794	£ 87,483	£ 6,385,385
Value of production ..	£ 1,467,957	£ 1,351,997	£ 434,309	£ 396,424	£ 174,227	£ 63,589	£ 3,888,503

**ESTABLISHMENTS PRODUCING NEWSPAPERS AND PERIODICALS, 1931–32.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W.A.	Tas.	Australia.
Number of establishments ..	219	121	68	..	29	7	444
Number of employees ..	3,189	2,025	1,519	..	499	491	7,723
Actual horse-power of engines used ..	5,456	3,084	2,356	..	1,108	333	12,337
Approx. value of land and buildings ..	£ 1,710,389	£ 784,213	£ 469,979	..	£ 202,196	£ 66,002	£ 3,232,779
Approx. value of plant and machinery ..	£ 1,321,758	£ 788,437	£ 395,866	..	£ 156,785	£ 71,468	£ 2,734,314
Wages paid ..	£ 830,278	£ 502,781	£ 414,201	..	£ 138,577	£ 90,089	£ 1,975,926
Value of fuel used ..	£ 40,895	£ 24,123	£ 19,153	..	£ 6,996	£ 4,575	£ 95,742
Value of materials used ..	£ 986,627	£ 724,357	£ 247,508	..	£ 120,431	£ 63,079	£ 2,142,002
Total value of output ..	£ 2,487,691	£ 1,561,408	£ 991,372	..	£ 343,535	£ 193,600	£ 5,577,606
Value of production ..	£ 1,460,169	£ 812,928	£ 724,711	..	£ 216,108	£ 125,946	£ 3,339,862

(a) Included in General Printing and Bookbinding.

27. **Motor Vehicles and Cycles.**—The industries catering for the motor trade are included in Class IV.—Industrial Metals, Machines, Implements and Conveyances. Returns in regard to assembling and repairing are shown hereunder for the year 1931-32 :—

**ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1931-32.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	845	786	110	118	185	91	2,135
Number of employees .. ..	3,258	3,010	688	640	483	377	8,456
Actual horse-power of engines used .. ..	3,362	2,574	558	644	673	297	8,108
Approx. value of land and buildings .. ..	£ 1,623,564	£ 1,251,926	£ 342,308	£ 330,351	£ 311,674	£ 193,949	£ 4,053,772
Approx. value of plant and machinery .. ..	£ 341,308	£ 284,219	£ 64,653	£ 69,701	£ 86,935	£ 26,182	£ 872,998
Wages paid .. ..	£ 492,146	£ 443,629	£ 105,160	£ 77,260	£ 68,478	£ 43,644	£ 1,230,317
Value of fuel used .. ..	£ 32,979	£ 32,526	£ 5,514	£ 5,526	£ 5,233	£ 3,210	£ 84,988
Value of materials used .. ..	£ 432,404	£ 54,196	£ 24,336	£ 83,126	£ 54,045	£ 42,544	£ 691,151
Total value of output .. ..	£ 1,275,360	£ 836,326	£ 316,043	£ 219,518	£ 196,294	£ 122,585	£ 2,966,126
Value of production .. ..	£ 809,977	£ 749,604	£ 285,693	£ 130,866	£ 137,016	£ 76,831	£ 2,189,987

Particulars in regard to motor body building for the year 1931-32 are as follow :—

**MOTOR BODY BUILDING, 1931-32.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	45	60	10	12	26	..	153
Number of employees .. ..	405	823	81	756	111	..	2,176
Actual horse-power of engines used .. ..	463	1,430	45	1,802	175	..	3,915
Approx. value of land and buildings .. ..	£ 184,879	£ 481,680	£ 32,930	£ 420,496	£ 51,332	..	£ 1,171,317
Approx. value of plant and machinery .. ..	£ 23,684	£ 187,170	£ 4,852	£ 374,688	£ 15,014	..	£ 605,408
Wages paid .. ..	£ 60,408	£ 146,830	£ 12,703	£ 129,516	£ 16,591	..	£ 366,048
Value of fuel used .. ..	£ 2,281	£ 4,866	£ 399	£ 7,496	£ 1,037	..	£ 16,079
Value of materials used .. ..	£ 56,625	£ 137,827	£ 11,712	£ 102,365	£ 14,982	..	£ 323,511
Total value of output .. ..	£ 147,087	£ 328,409	£ 28,923	£ 244,578	£ 44,406	..	£ 793,403
Value of production .. ..	£ 88,181	£ 185,716	£ 16,812	£ 134,717	£ 28,387	..	£ 453,813

The output of motor bodies for Australia is shown in the next table.

**MOTOR BODIES PRODUCED IN AUSTRALIA.**

Items.	1926-27. (a)	1927-28. (a)	1928-29. (a)	1929-30. (a)	1930-31. (a)	1931-32. (b)
Motor Bodies—						
Number .. ..	88,876	58,955	72,193	46,409	10,417	6,323
Value .. ..	£ 4,830,014	£ 3,436,674	£ 4,357,841	£ 3,118,987	£ 864,209	£ 450,510

(a) Excluding Queensland and Tasmania.

(b) Excluding Tasmania.

28. Furniture and Cabinet Making and Billiard Table Making Factories.—These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State :—

**BILLIARD TABLE MAKING, FURNITURE AND CABINET MAKING AND UPHOLSTERY FACTORIES, 1931-32.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	207	282	68	48	65	39	709
Number of employees ..	1,773	1,747	861	479	330	222	5,412
Actual horse-power of engines used ..	3,705	3,005	1,472	1,494	932	473	11,081
Approx. value of land and buildings ..	£ 509,524	£ 522,469	£ 144,626	£ 102,569	£ 103,913	£ 42,064	£ 1,425,165
Approx. value of plant and machinery ..	£ 195,710	£ 150,845	£ 74,560	£ 63,261	£ 38,312	£ 17,876	£ 540,564
Wages paid ..	£ 279,455	£ 217,009	£ 128,276	£ 65,068	£ 47,744	£ 21,913	£ 759,465
Value of fuel used ..	£ 14,277	£ 13,110	£ 6,302	£ 4,123	£ 2,325	£ 1,179	£ 41,316
Value of materials used ..	£ 415,246	£ 355,024	£ 168,049	£ 93,352	£ 84,587	£ 20,556	£ 1,136,814
Total value of output ..	£ 839,717	£ 731,949	£ 366,185	£ 192,440	£ 165,767	£ 56,505	£ 2,372,563
Value of production ..	£ 410,194	£ 383,815	£ 191,834	£ 94,965	£ 78,855	£ 34,770	£ 1,194,433

29. Electric Light and Power Works.—The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1927-28 the production of electric light and power has increased from 2,194,000,000 to 2,507,000,000 British units, or by more than 14 per cent. The value of land and buildings and plant and machinery remained practically the same as for the year 1929-30, indicating that no new works of importance were completed during 1931-32. Particulars for the year 1931-32 are as follow :—

**ELECTRIC LIGHT AND POWER WORKS, 1931-32.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	118	84	42	41	61	6	352
Number of employees ..	1,857	1,168	753	1,018	374	82	5,252
Actual horse-power of engines used ..	427,835	194,584	140,607	121,822	65,433	79,993	1,030,274
Approx. value of land and buildings ..	£ 4,815,101	£ 1,957,275	£ 353,483	£ 590,612	£ 227,192	£ 29,295	£ 7,972,958
Approx. value of plant and machinery ..	£ 10,251,153	£ 6,152,620	£ 2,446,706	£ 1,965,847	£ 1,025,860	£ 3,294,997	£ 25,137,183
Wages paid ..	£ 504,068	£ 265,715	£ 179,334	£ 224,038	£ 90,194	£ 18,717	£ 1,282,066
Value of fuel used ..	£ 1,115,075	£ 425,547	£ 172,903	£ 142,521	£ 286,857	£ 52	£ 2,142,955
Total value of output ..	£ 5,178,785	£ 1,375,886	£ 873,154	£ 962,059	£ 655,161	£ 306,044	£ 9,351,089

30. Gas Works.—(i) *Details for each State, 1931-32.* Gas works are in operation in the majority of important towns in Australia. New South Wales returned nine coke factories and Queensland one, working as separate industries, but under the new classification these have been excluded from Class XVI. and included in Class I. The subjoined table gives particulars of gas works in each State for the year 1931-32 :—

INDIVIDUAL INDUSTRIES.

697

GAS WORKS, 1931-32.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	48	37	16	6	4	2	113
Number of employees ..	1,100	761	294	554	99	79	2,887
Actual horse-power of engines used ..	4,807	3,047	920	1,908	214	176	11,072
Approx. value of land and buildings ..	£ 888,602	429,703	147,282	42,957	81,980	49,803	1,640,327
Approx. value of plant and machinery ..	£ 3,045,919	1,840,345	554,267	1,197,743	170,569	163,122	6,971,965
Wages paid ..	£ 280,423	183,278	69,412	136,027	23,579	19,891	712,610
Value of fuel used ..	£ 186,517	120,074	14,390	40,497	12,217	5,054	378,749
Value of materials used ..	£ 746,014	673,823	121,674	164,834	56,768	24,688	1,787,801
Total value of output ..	£ 2,175,769	1,458,894	576,964	538,542	130,413	75,272	4,955,854
Value of production ..	£ 1,243,238	664,997	440,900	333,211	61,428	45,530	2,789,304

(ii) *Coal Used and Production, 1931-32.* The following table gives details for the year 1931-32 :—

GAS WORKS.—COAL USED AND PRODUCTION, 1931-32.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
COAL USED.							
Coal .. .. . tons	515,508	306,287	81,543	75,930	19,828	12,201	1,011,297
PRODUCTS.							
Gas .. 1,000 cubic feet	9,320,868	5,458,609	1,244,323	1,167,937	393,262	176,522	17,761,521
Coke .. .. . tons	336,846	181,746	47,282	45,618	10,361	5,946	627,799
VALUE.							
Gas .. .. . £	1,523,619	1,058,181	529,242	421,427	109,215	58,419	3,700,103
Coke .. .. . £	357,094	280,836	36,094	72,318	15,850	10,345	772,537

The production of gas increased from 19,478,569,000 cubic feet in 1926-27 to 20,929,569,000 cubic feet in 1929-30, but fell to 18,892,700,000 cubic feet in 1930-31 and 17,761,521,000 cubic feet in 1931-32.

## CHAPTER XXIII.

## WATER CONSERVATION AND IRRIGATION.

## § 1. Artesian Water.

1. **General.**—In every country subject to droughts, the provision of adequate systems of water conservation is a matter of prime importance. Much has been done in Australia so far as the supply of water to centres of population is concerned, and a description of the principal water-works in each State will be found in Chapter IV., "Local Government".

Interstate Conferences on the subject of artesian water were held in 1912, 1914, 1921, 1924, and 1928, when combined Governmental action was agreed upon with reference to delimitation of the artesian basins, hydrographic surveys, reason for decrease in flow, analyses and utilization of artesian water, etc. A map showing the extent of the known artesian basins will be found on page 701.

2. **The Great Australian Artesian Basin.**—The area known as the "Great Australian Artesian Basin," includes (a) considerably more than one-half of Queensland, taking in practically all that State lying west of the Great Dividing Range, with the exception of an area in the north-west contiguous to the Northern Territory; (b) a considerable strip of New South Wales along its northern boundary and west of the Great Dividing Range; and (c) the north-eastern part of South Australia proper, together with the extreme south-eastern corner of the Northern Territory. This basin (shown approximately by the map on page 701) is said to be the largest yet discovered, and measures about 600,000 square miles, of which 376,000 square miles are in Queensland, 118,000 square miles in South Australia, 80,000 square miles in New South Wales, and 25,000 square miles in the Northern Territory. The area of the intake beds is estimated at 60,010 square miles, viz., 50,000 square miles in Queensland and 10,010 square miles in New South Wales. A description of the basin and its geological formation will be found in previous issues of the Year Book (see No. 6, p. 569).

3. **The Western Australian Basins.**—The Western Australian Basins fall naturally within five distinct groups, viz., the Eucla Basin, in the extreme south-east of the State, extending well into South Australia along the shores of the Great Australian Bight; the Coastal Plain Basin, west of the Darling Range; the North-West Basin, between the Murchison and Ashburton Rivers; the Gulf Basin, between Cambridge Gulf and Queen's Channel; and the Desert Basin, between the De Grey and Fitzroy Rivers.

The Recent and Tertiary strata which enter Western Australia at its eastern border, and which have a prevailing dip towards the Great Australian Bight, form the Eucla artesian water area. Where boring operations have been undertaken, the water has been found to be salt or brackish, and there are other conditions affecting the supply, such as local variations in the thickness of the beds, their relative porosity, and the unevenness of the floor upon which they rest, which, so far, have not been examined with sufficient thoroughness to enable many particulars to be given in regard to this basin.

In the Coastal Plain Basin to the west of the Darling Ranges, artesian boring has, on the other hand, been carried on successfully for many years.

4. **The Murray River Basin.**—The Murray River basin extends over south-western New South Wales, north-western Victoria, and south-eastern South Australia. It is bounded on the west by the azoic and palæozoic rocks of the Mount Lofty and other

ranges extending northwards from near the mouth of the Murray to the Barrier Range, and on the east and north-east by the ranges of Victoria and New South Wales. This tertiary water-basin is occupied by a succession of sedimentary formations, both porous and impervious. It is of interest to note that the waters of the Murray River are partly supplied by influx from the water-bearing beds of this basin; this is proved by the fact that, at low water, springs are observed at certain places flowing into the river bed from beneath the limestone cliffs from Pyap Bend downwards. Similar springs exist along the courses of other branches of the River Murray system, where they cut through the tertiary formation. On the Victorian side, bores have been put down, and water has been struck at various levels.

5. **Plutonic or Meteoric Waters.**—In previous Year Books will be found a statement of the theory of Professor Gregory\* as to the origin of the water in the Australian artesian basins, together with the objections held thereto by a former Government Geologist of New South Wales.† (See Official Year Book No. 6. p. 570).

6. **Artesian and Sub-Artesian Bores.**—(i) *General.* The following table gives particulars regarding artesian and sub-artesian bores in each State and in the Northern Territory :—

ARTESIAN AND SUB-ARTESIAN BORES, 1931-32.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (c)	W. Aust.	N. Ter.	Total.
Bores existing . . . . . No.	575	380	21,424	207	251	191	3,028
Total depth of existing bores feet	940,484	101,200	4,171,438	122,657	227,886	62,375	5,626,040
Daily flow . . . . . 1,000 gals.	275,795	(b)	2,278,897	212,971	73,285	7,723	4,448,671
Depth at which artesian water was struck—							
Maximum . . . . . feet	4,338	1,190	6,000	4,851	3,325	1,760	6,000
Minimum . . . . . feet	100	125	10	233	39	42	10
Temperature of flow—							
Maximum . . . . . °Fahr.	142	(b)	212	208	140	(b)	212
Minimum . . . . . °Fahr.	74	(b)	78	82	75	(b)	74

(a) Flowing bores only. (b) Not available. (c) Government bores only. (d) Total depth of all bores. (e) Incomplete.

(ii) *Details for States.*—Considerations of space preclude the insertion of separate particulars of operations in the States during the year 1931-32. Details for earlier years will, however, be found in issues of the Official Year Book prior to No. 24, 1931.

## § 2. Irrigation.

1. **General.**—Australia's first experiments in irrigation were made with the object of bringing under cultivation areas in which an inadequate rainfall rendered agricultural and even pastoral occupations precarious and intermittent, and, although these original settlements have generally proved fairly successful, most of the States, instead of promoting new settlement in unoccupied regions, are adopting the policy of making existing settlements closer, by repurchasing large estates, subdividing them into holdings of suitable sizes for cultivation, and selling the land upon easy terms of payment. It is in connexion with this Closer Settlement policy that the special value of irrigation is recognized. Information regarding the various irrigation schemes in operation was given in some detail in preceding issues of the Official Year Book (See No. 23, pages 637 to 661).

\* See J. W. Gregory, F.R.S., D.Sc.: "The Dead Heart of Australia," London, John Murray, 1906; and "The Flowing Wells of Central Australia," Geogr. Journ., July and August, 1911.

† E. F. Pittman, A.R.S.M., formerly Government Geologist of New South Wales: "Problems of the Artesian Water Supply of Australia, with special reference to Professor Gregory's Theory," (Clarke Memorial Lecture, delivered before the Royal Society of New South Wales, 31st October, 1907); "The Great Australian Artesian Basin," Sydney, 1914; and "The Composition and Porosity of the Intake Beds of the Great Australian Artesian Basin," Sydney, 1915.



2. Areas Irrigated.—The following table gives the area irrigated in each State in the years 1922-23 to 1931-32. Victoria shows the largest irrigated acreage, the area so returned in 1931-32 amounting to 418,415 acres, or 67.7 per cent. of the total for Australia. New South Wales for the same year returned an area of 114,777 acres, or 18.6 per cent. of the total. The areas under irrigation in the remaining States are relatively very small.

## IRRIGATION.—AREAS IRRIGATED.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1922-23 ..	46,273	350,727	14,314	26,307	2,772	7,059	447,452
1923-24 ..	57,242	324,558	18,417	27,866	3,035	7,102	438,520
1924-25 ..	73,432	375,503	18,235	35,313	3,126	7,267	512,876
1925-26 ..	83,795	343,685	21,669	36,409	3,551	7,361	496,470
1926-27 ..	89,528	406,532	38,044	35,443	3,756	7,882	581,185
1927-28 ..	102,533	477,500	21,411	38,379	4,292	7,016	651,131
1928-29 ..	123,129	471,605	25,344	39,236	4,907	7,054	(a)671,475
1929-30 ..	126,321	566,577	26,282	40,002	4,943	6,693	770,818
1930-31 ..	135,121	463,098	26,947	43,538	5,661	6,488	680,853
1931-32 ..	114,777	418,415	28,414	42,813	6,104	7,768	618,291

(a) Including 100 acres, Northern Territory and 10 acres, Federal Capital Territory.

3. Crops on Irrigated Areas.—A classification of the crops grown on the irrigated areas in each State during the year 1931-32, together with the averages for Australia during the quinquennium 1926-27 to 1930-31, will be found in the table hereunder. Lucerne, grasses and green forage accounted for 56 per cent., cereals for 15 per cent., orchards and vineyards for 21 per cent., and root crops, market gardens, &c., for about 8 per cent. of the total area under irrigation in 1931-32.

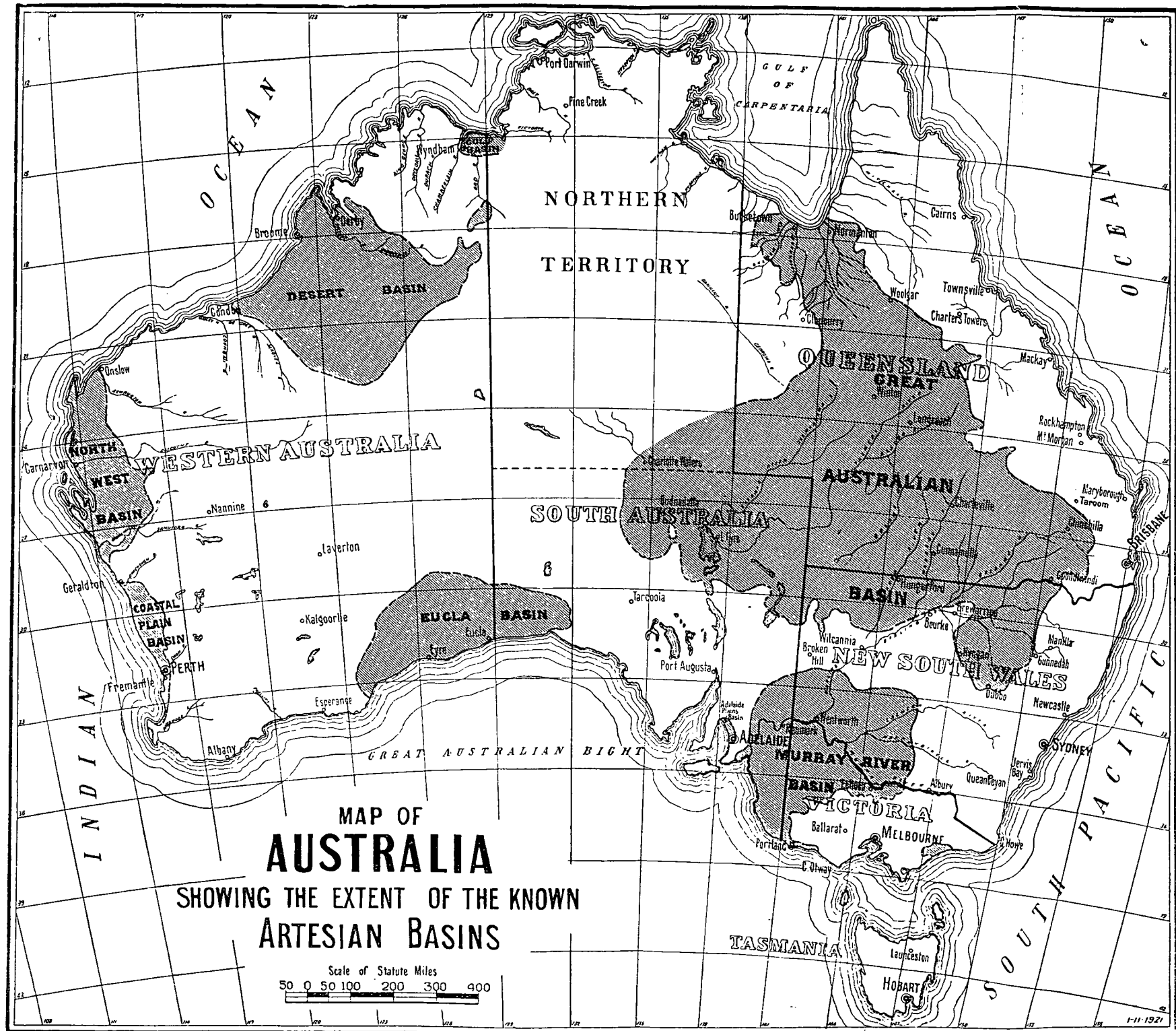
## IRRIGATION.—CROPS ON IRRIGATED AREAS, 1931-32 AND 1926-27 TO 1930-31.

Crop.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.	Average 1926-27 to 1930-31.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cereals ..	59,973	(a)34,970	..	..	154	..	95,097	142,572
Lucerne, Grasses and Green Forage ..	19,231	306,572	596	12,510	2,818	5,200	346,927	357,447
Orchards and Vineyards ..	25,347	68,430	3,310	26,980	1,872	1,020	126,959	126,008
Root Crops, Market Gardens and other Crops ..	10,226	8,443	(b)24,508	3,323	1,260	(c) 1,548	49,308	45,065
Total ..	114,777	418,415	28,414	42,813	6,104	7,768	618,291	671,092

(a) Including Fallow, 7,042 acres; and Tobacco, 817 acres.

(b) Including Sugar Cane, 21,277 acres; Cotton, 2,314

(c) Including Hops, 854 acres.



This map was included in the Report of the Third Interstate Conference on Artesian Water held in Adelaide during September, 1921. The area has been slightly extended since the year named. See also letterpress on page 698.

CHAPTER XXIV.—LABOUR, WAGES, AND PRICES.

A.—PRICES.

§ 1. Wholesale Prices.

1. General.—The results of an investigation into wholesale prices in Melbourne from 1871 to the end of September, 1912, were given in some detail in Labour Report No. 1. Since 1912, a monthly index-number has been published. Details of monthly figures are to be found in the Labour Reports and in the Quarterly Summaries of Australian Statistics issued by this Bureau.

2. Index-Numbers.—The index-numbers for eight groups of commodities and for all groups together are shown in the following table, with the prices in the year 1911 as base. The index-numbers are not comparable horizontally.

INDEX-NUMBERS.—WHOLESALE PRICES, MELBOURNE.

(Base 1911 = 1,000.)

Year.	I. Metals and Coal.	II. Jute, Leather, Wool, etc.	III. Agricultural Produce, etc.	IV. Dairy Produce.	V. Gro- ceries.	VI. Meat.	VII. Building Materials.	VIII. Chemicals.	All Com- modities together.
1861 ..	1,438	1,381	1,583	1,008	1,963	..	1,070	2,030	1,538
1871 ..	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881 ..	1,178	1,115	1,012	935	1,421	..	1,091	1,587	1,121
1891 ..	895	847	1,024	995	1,032	888	780	1,194	945
1901 ..	1,061	774	928	1,029	1,048	1,345	841	917	974
1904 ..	821	885	754	876	916	1,427	845	875	890
1905 ..	772	850	894	980	942	1,209	801	859	910
1906 ..	882	978	916	972	923	1,110	896	864	948
1907 ..	1,037	1,017	973	1,020	948	1,294	968	961	1,021
1908 ..	1,033	901	1,312	1,198	968	1,335	935	891	1,115
1909 ..	1,014	907	1,000	1,119	978	1,088	911	815	993
1910 ..	1,004	1,052	969	1,100	999	1,008	996	898	1,003
1911 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1912 ..	1,021	991	1,370	1,206	1,052	1,357	1,057	978	1,172
1913 ..	1,046	1,070	1,097	1,054	1,024	1,252	1,128	995	1,086
1914 ..	1,099	1,032	1,207	1,137	1,021	1,507	1,081	1,253	1,149
1915 ..	1,284	1,017	2,162	1,530	1,133	2,435	1,275	1,528	1,604
1916 ..	1,695	1,423	1,208	1,485	1,322	2,515	1,491	1,760	1,504
1917 ..	2,129	2,008	1,157	1,423	1,343	2,403	1,884	2,171	1,662
1918 ..	2,416	2,360	1,444	1,454	1,422	2,385	2,686	3,225	1,934
1919 ..	2,125	2,303	1,985	1,651	1,516	2,348	2,851	2,898	2,055
1920 ..	2,298	2,624	2,439	2,209	1,918	3,279	3,226	2,825	2,480
1921 ..	2,173	1,362	1,767	2,000	1,976	2,158	2,733	2,303	1,903
1922 ..	1,942	1,681	1,628	1,648	1,869	1,787	2,005	1,965	1,758
1923 ..	1,826	2,148	1,778	1,837	1,746	2,579	2,025	1,933	1,944
1924 ..	1,835	2,418	1,647	1,655	1,721	2,223	1,815	1,806	1,885
1925 ..	1,852	1,967	1,797	1,636	1,723	2,212	1,711	1,790	1,844
1926 ..	1,938	1,582	2,001	1,784	1,731	1,931	1,665	1,816	1,832
1927 ..	1,962	1,650	1,826	1,823	1,724	2,111	1,624	1,866	1,817
1928 ..	1,912	1,781	1,726	1,751	1,707	2,015	1,744	1,923	1,792
1929 ..	1,912	1,556	1,792	1,853	1,690	2,246	1,754	1,942	1,803
1930 ..	1,866	1,127	1,484	1,627	1,666	2,025	1,875	1,982	1,596
1931 ..	1,826	1,039	1,121	1,399	1,794	1,508	2,025	2,166	1,428
1932 ..	1,736	1,000	1,230	1,303	1,767	1,348	2,043	2,127	1,411

NOTE.—The figures given in this table are comparable in the vertical columns, but are not directly comparable horizontally. The index-numbers are reversible.

The index-numbers up to the year 1911 are based on the prices of eighty commodities, but since that year the number has been increased to ninety-two.\* The commodities taken into account are given in detail in each Labour Report, with the average prices for the year. The commodities included are chiefly basic foods and raw materials, so that the index is more akin to the "Economist" or "Statist" index-numbers in England than to the official index-numbers of the United States or of Canada. The prices are weighted according to the estimates of Australian consumption per head in the years 1901 to 1911. For this purpose data were incomplete, and consumption in the State of Victoria was used as the basis for a number of commodities. The prices for farm and station products have been taken from market reports, and those of other commodities from trade journals or from information supplied by representative firms.

3. **Revision of the Index.**—Changes that have taken place since 1912 have altered considerably the relative consumption of different commodities. New commodities which should be taken into account have come into use, and in a number of other respects, the index-number requires revision. It is, moreover, desirable to give index-numbers for different classes of commodities, for farm products and for manufactured goods, and again for imported commodities and for those produced in Australia. Revision on these lines is now proceeding, and results will be ready for publication in the course of the year 1934.

## § 2. Retail Prices and House Rents.

1. **Introduction.**—Reference must be made generally to the Labour Reports for explanations and full tables of retail price index-numbers. In Report No. 1 (1912) will be found a general description of method, which is summarized in succeeding issues. Report No. 9, Appendix I. (1919) contains an extensive memorandum on price indexes by the late Sir George Knibbs.

2. **Index-Numbers.**—There are several index-numbers of retail prices, covering different ranges of commodities. They may be grouped as follows:—

(a) *Food and Groceries*, subdivided into groceries, dairy produce and meat.

Index-numbers are computed monthly for five representative towns in each State (the "30 towns"), for Canberra, and for a few other special towns (see para. 5). Index-numbers are computed annually in November for 200 towns, including those referred to above (see § 4, following).

(b) *Food and Housing*. Figures for rents are collected as at the middle of each quarter and combined with food prices to give a quarterly index of food and rent. For the 30 towns, there are two index-numbers, one taking into account the rents of houses of four and five rooms only, and the other rents of all houses, commonly called the Arbitration Court index. The first is usually given with the period 1923-1927 as base, and the second with 1911 as base. For the 200 towns, four-roomed and five-roomed houses are used separately, but the base is 1911.

(c) *All Household Expenditure*. Since 1919, prices have been collected quarterly in the "30 towns" for other household expenditure in two groups, "Clothing" and "Miscellaneous", the latter including household utensils, fuel, light, tobacco and a number of other items. These prices are combined with food prices and rents (four and five-roomed houses) to give the "all-items" index of retail prices. The base is the period 1923 to 1927 (see § 3 following).

For all these index-numbers full information is given in the Labour Reports. The latest available information is to be found in the Quarterly Summaries of Australian Statistics.

\* In the computation of the index-numbers for years prior to 1911, the aggregate expenditure on 80 commodities in 1911 is taken as base (= 1,000), while for later years the aggregate expenditure on 92 commodities is taken.

3. Food and Housing : Six Capital Cities.—(i) *Food and Groceries*. The index-numbers for the three groups comprising groceries and food are shown in the following table.

RETAIL PRICE INDEX-NUMBERS, FOOD AND GROCERIES.—CAPITAL CITIES.

(Base : 1923-27 (= 1,000).)

City.	1907.	1911.	1914.	1921.	1928.	1929.	1930.	1931.	1932.
Sydney .. ..	523	553	646	1,062	1,021	1,090	984	876	852
Melbourne .. ..	517	523	610	1,063	942	1,004	913	791	758
Brisbane .. ..	530	569	603	1,014	935	951	844	778	738
Adelaide .. ..	532	570	679	1,066	993	1,055	937	789	761
Perth .. ..	670	753	728	1,116	1,053	1,084	961	836	804
Hobart .. ..	565	592	678	1,133	966	1,025	952	816	797
Weighted Average (a) ..	533	559	640	1,064	985	1,044	941	826	796

(a) For all capital cities.

(ii) *Housing*. In issues of the Official Year Book prior to No. 19, the computations of index-numbers of housing accommodation were based upon the rentals of all houses from under four rooms to seven rooms and over. Since 1920, houses of four and five rooms only have been taken into account in accordance with a resolution of the Conference of Statisticians at Adelaide in 1924. The following table is on this basis, but the old index is still computed for the use of the Commonwealth Arbitration Court (see *Appendix*).

INDEX-NUMBERS.—HOUSING,(a) CAPITAL CITIES.

(Base : 1923-27 (= 1,000).)

City.	1907.	1911.	1914.	1921.	1928.	1929.	1930.	1931.	1932.
Sydney .. ..	593	701	760	989	1,143	1,162	1,197	1,026	894
Melbourne .. ..	455	569	628	820	1,087	1,094	1,011	867	816
Brisbane .. ..	283	373	466	630	839	841	775	680	641
Adelaide .. ..	510	706	655	809	1,022	986	916	755	691
Perth .. ..	458	524	589	739	941	955	979	881	810
Hobart .. ..	405	452	518	881	939	932	914	901	868
Weighted Average (b) ..	497	612	662	862	1,066	1,073	1,047	901	817

(a) 4 and 5 roomed houses. (b) For all capital cities.

(iii) *Food, Groceries, and Housing (4 and 5-roomed Houses) combined*. The following table shows the index-numbers for groceries, food, and house rent (4 and 5-roomed houses) for each capital city, the weighted average cost for the six capitals in the five-yearly period 1923-1927 being taken as base (= 1,000) :—

RETAIL PRICE INDEX-NUMBERS—FOOD, GROCERIES, AND HOUSING.(a)—CAPITAL CITIES.

City.	1907.	1911.	1914.	1921.	1928.	1929.	1930.	1931.	1932.
Sydney .. ..	548	606	687	1,036	1,064	1,115	1,059	929	867
Melbourne .. ..	495	539	616	977	993	1,036	948	818	778
Brisbane .. ..	442	500	554	877	901	912	819	743	704
Adelaide .. ..	524	618	671	925	1,003	1,030	929	777	736
Perth .. ..	594	672	679	982	1,013	1,038	968	852	805
Hobart .. ..	508	542	621	1,044	956	992	939	846	822
Weighted Average (b) ..	520	578	648	992	1,014	1,054	978	852	803

(a) 4 and 5 roomed houses. (b) For all capital cities.

4. Retail Price Index-Numbers in Terms of Currency.—The tables previously given are now converted into money units by substituting 20s. od. for the base of 1,000. The figures for the last six quarters are added to the yearly figures. The figures show the sums which would have to be paid in each city and in each year in order to purchase such quantities of the several commodities and such housing as would in the aggregate cost £1, according to the weighted average prices and rents in the six capitals in the five-yearly base period—1923-1927.

**RETAIL PRICES.—AMOUNTS NECESSARY ON THE AVERAGE IN EACH YEAR FROM 1907 TO 1932 TO PURCHASE IN EACH CAPITAL CITY WHAT WOULD HAVE COST ON THE AVERAGE £1 IN THE FIVE-YEARLY BASE PERIOD—1923-1927, IN THE AUSTRALIAN CAPITALS REGARDED AS A WHOLE.**

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Cities.
<b>FOOD AND GROCERIES (46 COMMODITIES).</b>							
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1907 .. ..	10 6	10 4	10 7	10 8	13 5	11 4	10 8
1911 .. ..	11 1	10 6	11 5	11 5	15 1	11 10	11 2
1914 .. ..	12 11	12 2	12 1	13 7	14 7	13 7	12 10
1921 .. ..	21 3	21 3	20 3	21 4	22 4	22 8	21 3
1928 .. ..	20 5	18 10	18 8	19 10	21 1	19 4	19 8
1929 .. ..	21 10	20 1	19 0	21 1	21 8	20 6	20 11
1930 .. ..	19 8	18 3	16 11	18 9	19 3	19 1	18 10
1931 .. ..	17 6	15 10	15 7	15 9	16 9	16 4	16 6
1932 .. ..	17 1	15 2	14 9	15 3	16 1	15 11	15 11
1932 { 1st Quarter..	17 5	15 9	15 3	15 9	16 6	16 3	16 5
2nd " ..	17 3	15 5	14 11	15 7	16 8	16 3	16 2
3rd " ..	17 0	15 1	14 7	15 1	15 11	15 9	15 10
4th " ..	16 7	14 5	14 4	14 5	15 2	15 6	15 4
1933 { 1st Quarter..	15 11	13 9	13 10	14 3	14 9	14 9	14 9
2nd " ..	16 0	14 1	13 11	14 7	15 6	15 0	15 0
<b>HOUSING ACCOMMODATION (WEIGHTED AVERAGE—4 AND 5 ROOMED HOUSES).</b>							
1907 .. ..	11 10	9 1	5 8	10 2	9 2	8 1	9 11
1911 .. ..	14 0	11 5	7 6	14 1	10 6	9 0	12 3
1914 .. ..	15 2	12 7	9 4	13 1	11 9	10 4	13 3
1921 .. ..	19 9	16 5	12 7	16 2	14 9	17 7	17 3
1928 .. ..	22 10	21 9	16 9	20 5	18 10	18 9	21 4
1929 .. ..	23 3	21 11	16 10	19 9	19 1	18 8	21 6
1930 .. ..	23 11	20 3	15 6	18 4	19 7	18 3	20 11
1931 .. ..	20 6	17 4	13 7	15 1	17 7	18 0	18 0
1932 .. ..	17 11	16 4	12 10	13 10	16 2	17 4	16 4
1932 { 1st Quarter..	18 3	16 7	13 0	13 11	16 4	17 3	16 7
2nd " ..	18 1	16 5	12 11	13 11	16 3	17 7	16 5
3rd " ..	17 8	16 3	12 9	13 9	16 2	17 5	16 3
4th " ..	17 6	16 1	12 9	13 8	16 0	17 3	16 1
1933 { 1st Quarter..	17 6	16 1	13 2	13 10	15 11	17 1	16 1
2nd " ..	17 3	16 0	13 11	13 10	15 11	17 2	16 1
<b>FOOD, GROCERIES, AND HOUSING (4 AND 5 ROOMS ONLY) COMBINED.</b>							
1907 .. ..	11 0	9 11	8 10	10 6	11 11	10 2	10 5
1911 .. ..	12 1	10 9	10 0	12 4	13 5	10 10	11 7
1914 .. ..	13 9	12 4	11 1	13 5	13 7	12 5	13 0
1921 .. ..	20 9	19 6	17 6	19 6	19 8	20 11	19 10
1928 .. ..	21 3	19 10	18 0	20 1	20 3	19 1	20 3
1929 .. ..	22 4	20 9	18 3	20 7	20 9	19 10	21 1
1930 .. ..	21 2	18 11	16 5	18 7	19 4	18 9	19 7
1931 .. ..	18 7	16 4	14 10	15 7	17 1	16 11	17 1
1932 .. ..	17 4	15 7	14 1	14 9	16 1	16 5	16 1
1932 { 1st Quarter..	17 8	16 0	14 5	15 1	16 6	16 7	16 6
2nd " ..	17 6	15 9	14 2	15 1	16 6	16 8	16 3
3rd " ..	17 3	15 6	13 11	14 7	16 0	16 4	16 0
4th " ..	16 11	15 0	13 9	14 1	15 5	16 1	15 7
1933 { 1st Quarter..	16 5	14 7	13 7	14 1	15 1	15 6	15 2
2nd " ..	16 5	14 8	13 10	14 4	15 7	15 9	15 4

5. Food and Housing, Thirty Towns.—The following table shows the food and housing index-numbers for five representative towns (not necessarily the largest) in each State for the years 1930 to 1932. It shows also the amount of each index-number which is due to food and the amount due to housing.

INDEX-NUMBERS, 30 TOWNS, SHOWING RELATIVE EXPENDITURE ON FOOD AND GROCERIES AND ON HOUSING (ALL HOUSES) SEPARATELY, AND ON THESE ITEMS COMBINED. BASIS OF TABLE—WEIGHTED AVERAGE EXPENDITURE ON FOOD, GROCERIES, AND HOUSING (ALL HOUSES) IN THE SIX CAPITAL CITIES IN 1911 = 1,000.

Town.	1930.			1931.			1932.		
	Food and Groceries.	Housing. (All Houses).	Food, Groceries and Housing.	Food and Groceries.	Housing. (All Houses).	Food, Groceries and Housing.	Food and Groceries.	Housing. (All Houses).	Food, Groceries and Housing.
<b>NEW SOUTH WALES—</b>									
Sydney .. .. .	1,036	756	1,792	923	673	1,596	897	611	1,508
Newcastle .. .. .	1,025	629	1,654	914	561	1,475	881	497	1,378
Broken Hill .. .. .	1,245	416	1,661	1,064	401	1,465	1,003	366	1,369
Goulburn .. .. .	1,029	729	1,758	888	618	1,506	872	570	1,442
Bathurst .. .. .	1,015	538	1,553	902	513	1,415	861	456	1,317
Weighted Average ..	1,040	735	1,775	925	655	1,580	898	593	1,491
<b>VICTORIA—</b>									
Melbourne .. .. .	961	711	1,672	833	615	1,448	798	580	1,378
Ballarat .. .. .	1,003	535	1,538	858	506	1,364	807	507	1,314
Bendigo .. .. .	1,009	517	1,526	868	459	1,327	819	442	1,261
Geelong .. .. .	957	628	1,585	823	598	1,421	819	505	1,384
Warrnambool .. .. .	982	612	1,594	853	593	1,446	842	583	1,425
Weighted Average ..	965	693	1,658	835	604	1,439	799	572	1,371
<b>QUEENSLAND—</b>									
Brisbane .. .. .	888	553	1,441	820	495	1,315	776	482	1,258
Toowoomba .. .. .	891	512	1,403	804	473	1,277	766	476	1,242
Rockhampton .. .. .	961	507	1,468	888	457	1,345	851	428	1,279
Charters Towers .. .. .	1,018	391	1,409	950	344	1,294	923	321	1,244
Warwick .. .. .	924	458	1,382	841	441	1,282	811	422	1,233
Weighted Average ..	900	538	1,438	830	483	1,313	789	469	1,258
<b>SOUTH AUSTRALIA—</b>									
Adelaide .. .. .	986	607	1,593	831	510	1,341	800	466	1,266
Kadina, &c. .. .. .	1,091	269	1,360	915	253	1,168	892	251	1,143
Port Pirie .. .. .	1,073	437	1,510	899	422	1,321	860	397	1,257
Mount Gambier .. .. .	973	367	1,340	815	366	1,181	812	377	1,189
Peterborough .. .. .	1,099	510	1,609	910	462	1,372	858	447	1,305
Weighted Average ..	994	583	1,577	837	494	1,331	807	453	1,260
<b>WESTERN AUSTRALIA—</b>									
Perth, &c. .. .. .	1,012	579	1,591	880	536	1,416	845	484	1,329
Kalgoorlie, &c. .. .. .	1,198	302	1,500	1,047	342	1,389	1,025	421	1,446
Northam .. .. .	1,097	456	1,553	930	425	1,355	898	415	1,313
Bunbury .. .. .	1,126	385	1,511	933	385	1,318	874	378	1,252
Geraldton .. .. .	1,110	478	1,588	967	495	1,462	906	474	1,380
Weighted Average ..	1,038	541	1,579	901	510	1,411	868	473	1,341
<b>TASMANIA—</b>									
Hobart .. .. .	1,002	645	1,647	859	613	1,472	839	598	1,437
Launceston .. .. .	987	574	1,561	855	561	1,416	819	544	1,363
Burnie .. .. .	1,055	501	1,556	889	469	1,358	873	461	1,334
Devonport .. .. .	988	521	1,509	870	504	1,374	865	495	1,360
Queenstown .. .. .	1,124	325	1,449	984	345	1,329	952	373	1,325
Weighted Average ..	1,004	602	1,606	864	578	1,442	839	565	1,404
Weighted Average for 30 Towns .. .. .	996	669	1,665	874	593	1,467	842	551	1,393
Weighted Average 6 Capital Cities .. .. .	990	693	1,683	870	609	1,479	838	565	1,403

### § 3. Variations in the Cost of Food, Groceries, Rent, Clothing, and Miscellaneous Expenditure.

1. **General.**—The index-numbers in § 2 show the variations in the cost of food, groceries and house rent. The expenditure on these items covers approximately 60 per cent. of the total expenditure of the ordinary household. The balance is expended on clothing, boots, fuel, light, and such miscellaneous items as renewals of furniture, furnishings, drapery, crockery, lodge dues, trade union dues, recreation, newspapers, etc. The Royal Commission on the Basic Wage in 1920 recommended in its report that a method should be adopted of ascertaining from time to time the rise and fall in the purchasing-power of money in its relation to the total household expenditure. The Government adopted the recommendation, and the duty of carrying out the necessary investigations was entrusted to the Bureau of Census and Statistics, which adopted the methods hereunder described.

2. **Methods Adopted.**—After careful investigation it was decided to adopt for food, groceries, and house rent, the commodities, method, and weighting used by this Bureau. The commodities and quantities adopted for food and groceries conform very closely to those given in the Indicator Lists of the Commission. With regard to rent, the Commission adopted a certain type of five-roomed house as its standard for determining the amount allowed for housing. The investigations made by this Bureau are not confined to a particular type of house, but the average rentals paid for houses of four and five rooms are taken. The results can be used with safety to show the variations in the type of house described by the Commission.

The investigations of this Bureau advisedly had been confined to food, groceries, and house rent, and it was necessary, therefore, to make investigations into the cost of clothing and miscellaneous expenditure. With regard to clothing, the Basic Wage Commission collected a large amount of information as to prices and life of articles, and this has been utilized in computing the index-numbers given in the following tables.

With regard to Miscellaneous Expenditure, which covers a very wide field, inquiries were made as to variations in cost of fuel and light, household utensils, drapery, crockery, etc., also with regard to other items included in the Indicator Lists for Miscellaneous Expenditure, and the aggregate expenditure on these items has been computed in the same manner as that for clothing.

3. **Period Selected as Base.**—For the new series of index-numbers, November, 1914 was adopted as base, owing to the difficulty of securing information with regard to prices of clothing and miscellaneous items for earlier years. Prior to and including the 4th Quarter, 1929, the index-numbers were computed to this base, but in accordance with the decision of the Conference of Statisticians to adopt a post-war period as base, the index-numbers since 1st Quarter, 1930, have been computed to the five-yearly period—1923–1927—as base (= 1,000), and the figures for past years have been re-computed to the same base.

4. **Variations in Cost in the Capital Cities.**—The following table gives the combined index (sometimes called the "all-items" index) for all household expenditure, for the capital cities of the States.

#### INDEX-NUMBERS, TOTAL HOUSEHOLD EXPENDITURE, CAPITAL CITIES.

(NOTE.—Weighted average cost in the five-yearly period—1923–1927—for all items in the six capital cities taken as base = 1,000.)

Cities.	November.		Year.						1st Quarter 1933.
	1914.	1921.	1927.	1928.	1929.	1930.	1931.	1932.	
Sydney	712	1,046	1,029	1,042	1,073	1,026	922	867	833
Melbourne	671	1,003	990	992	1,017	956	846	813	780
Brisbane	611	923	922	917	923	859	793	764	747
Adelaide	699	989	1,018	1,027	1,037	952	837	802	781
Perth	707	1,008	984	1,012	1,026	977	885	840	805
Hobart	687	1,070	998	980	1,000	956	875	844	817
Weighted Average	687	1,013	1,002	1,009	1,033	975	873	830	800



### § 4. Retail Price Index-Numbers, 200 Towns.

1. **General.**—To supplement the information collected each month for the 30 towns specified in § 2.5 *ante*, a special investigation was initiated in November, 1913, into retail price index-numbers in 70 additional towns. This investigation was repeated in November, 1914, and again in November, 1915, when the number of additional towns was increased to 120. In November, 1923, the number of additional towns was further increased to 170, and it is intended to institute inquiries in November in each year, thus making information available annually for 200 towns. The results of the first investigation were published in Labour Bulletin No. 5 (Section IV., pages 26 to 33), where a description was given of the methods adopted in making the investigation and in computing the index-numbers. The results of the succeeding yearly investigations have appeared in the Labour Bulletins and Reports of this Bureau.

2. **Detailed Results, 1930 to 1932.**—The base of the table is the cost of food and housing (all houses) in the six capitals in 1911, and is to some extent arbitrary, inasmuch as the element of rent in the base itself differs from that contained in this table, but the index-numbers are comparable throughout.

Column A shows the relative cost of food in the various towns; Column B the relative cost of food and rent of four-roomed houses; and Column C the relative cost of food and rent of five-roomed houses. The difference between Columns B and A, and C and A, represents in each case the relative costs of four-roomed and five-roomed houses for each town. In comparing rents for various towns, therefore, these differences must first be ascertained in order to make the necessary allowance for the differences due to food as between towns. The last-mentioned factor may be ascertained from Column A.

#### INDEX-NUMBERS.—COST OF FOOD AND GROCERIES, AND OF FOOD, GROCERIES AND HOUSING IN 200 TOWNS, COMPARED WITH THE WEIGHTED AVERAGE COST OF FOOD, GROCERIES, AND RENT FOR ALL HOUSES IN THE SIX CAPITAL CITIES IN 1911 AS BASE (= 1,000).

State and Town.	1930. November.			1931. November.			1932. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
<b>NEW SOUTH WALES—</b>									
Albury .. .. .	930	1,536	1,653	873	1,343	1,461	811	1,290	1,340
Armidale .. .. .	937	1,375	1,463	885	1,290	1,363	854	1,212	1,295
Ballina .. .. .	1,000	1,395	1,527	880	1,226	1,364	870	1,227	1,339
Bathurst .. .. .	930	1,339	1,446	879	1,213	1,300	826	1,174	1,234
Bega .. .. .	957	1,313	1,431	954	1,322	1,427	890	1,241	1,311
Berry .. .. .	973	1,302	1,394	899	1,215	1,288	893	1,209	1,282
Blackheath .. .. .	1,036	1,463	1,582	943	1,321	1,425	869	1,238	1,340
Bourke .. .. .	1,089	1,418	1,484	1,018	1,380	1,478	878	1,230	1,338
Bowral .. .. .	991	1,478	1,636	938	1,320	1,431	872	1,247	1,333
Broken Hill .. .. .	1,169	1,551	1,671	1,031	1,339	1,459	938	1,257	1,385
Casino .. .. .	916	1,443	1,574	888	1,327	1,414	832	1,240	1,358
Cessnock .. .. .	935	1,307	1,420	874	1,179	1,254	817	1,120	1,202
Cobar .. .. .	1,119	1,332	1,386	1,008	1,224	1,293	944	1,160	1,249
Cooma .. .. .	1,053	1,382	1,571	1,026	1,335	1,473	957	1,230	1,401
Coonamble .. .. .	1,033	1,388	1,523	984	1,302	1,408	895	1,175	1,269
Cootamundra .. .. .	942	1,446	1,615	900	1,383	1,510	846	1,289	1,369
Corrimal .. .. .	974	1,459	1,510	929	1,350	1,447	863	1,262	1,324
Cowra .. .. .	899	1,347	1,504	889	1,262	1,362	851	1,191	1,306
Cronulla .. .. .	1,060	1,601	1,740	934	1,390	1,480	896	1,327	1,422
Deniliquin .. .. .	1,053	1,516	1,667	893	1,274	1,380	846	1,181	1,278

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1930. November.			1931. November.			1932. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
<b>NEW SOUTH WALES—<i>continued.</i></b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>A</b>	<b>B</b>	<b>C</b>
Dubbo .. .. .	913	1,604	1,673	868	1,441	1,549	752	1,258	1,380
Forbes .. .. .	918	1,512	1,632	879	1,391	1,459	851	1,309	1,393
Gilgandra .. .. .	979	1,321	1,436	912	1,223	1,295	838	1,134	1,200
Glen Innes .. .. .	881	1,302	1,427	877	1,243	1,366	814	1,176	1,274
Goulburn .. .. .	944	1,491	1,582	852	1,288	1,355	856	1,297	1,344
Grafton .. .. .	876	1,404	1,574	873	1,294	1,461	806	1,234	1,378
Griffell .. .. .	961	1,395	1,553	918	1,326	1,428	848	1,234	1,336
Griffith .. .. .	1,083	2,021	2,251	1,011	1,807	1,998	896	1,692	1,883
Guilgong .. .. .	982	1,344	1,434	893	1,169	1,241	836	1,134	1,225
Gunnedah .. .. .	897	1,349	1,401	861	1,246	1,336	799	1,159	1,283
Hay .. .. .	1,026	1,420	1,618	966	1,297	1,489	938	1,270	1,416
Inverell .. .. .	930	1,445	1,522	943	1,351	1,463	871	1,309	1,410
Junece .. .. .	963	1,587	1,687	943	1,495	1,584	832	1,316	1,441
Katoomba .. .. .	1,048	1,691	1,778	984	1,537	1,641	873	1,429	1,512
Kempsey .. .. .	837	1,226	1,403	866	1,227	1,361	829	1,182	1,306
Kiama .. .. .	1,027	1,373	1,601	983	1,279	1,509	892	1,182	1,353
Kurri Kurri .. .. .	978	1,372	1,442	884	1,176	1,273	811	1,102	1,177
Leeton .. .. .	1,018	1,724	1,788	965	1,571	1,656	909	1,496	1,593
Lismore .. .. .	959	1,485	1,691	877	1,282	1,483	831	1,247	1,393
Lithgow .. .. .	981	1,412	1,506	898	1,237	1,289	858	1,186	1,225
Maitland .. .. .	919	1,331	1,441	870	1,201	1,315	808	1,141	1,240
Moree .. .. .	1,004	1,596	1,793	977	1,515	1,573	941	1,467	1,521
Moss Vale .. .. .	959	1,439	1,584	894	1,250	1,399	844	1,187	1,323
Mudgee .. .. .	898	1,424	1,490	888	1,305	1,415	803	1,197	1,329
Narrabri .. .. .	1,009	1,486	1,607	920	1,309	1,395	866	1,238	1,324
Narrandera .. .. .	1,053	1,580	1,744	1,010	1,486	1,598	916	1,376	1,486
Newcastle .. .. .	956	1,453	1,602	889	1,277	1,388	852	1,230	1,348
Nowra .. .. .	1,019	1,446	1,571	972	1,323	1,410	917	1,246	1,391
Orange .. .. .	960	1,503	1,656	892	1,303	1,407	792	1,192	1,297
Parkes .. .. .	916	1,436	1,549	903	1,284	1,386	855	1,239	1,323
Penrith .. .. .	926	1,334	1,456	851	1,179	1,269	820	1,119	1,251
Port Kembla .. .. .	1,023	1,549	1,689	952	1,355	1,478	850	1,267	1,340
Portland .. .. .	1,024	1,418	1,484	941	1,204	1,270	850	1,114	1,179
Queanbeyan .. .. .	986	1,432	1,525	950	1,363	1,476	883	1,155	1,242
Quirindi .. .. .	1,046	1,352	1,596	984	1,258	1,450	883	1,157	1,283
Richmond .. .. .	944	1,372	1,519	847	1,233	1,329	844	1,239	1,305
Seone .. .. .	941	1,415	1,533	943	1,371	1,466	846	1,274	1,350
Singleton .. .. .	976	1,419	1,508	913	1,282	1,370	871	1,196	1,302
Sydney .. .. .	980	1,537	1,682	913	1,375	1,471	865	1,307	1,385
Tamworth .. .. .	889	1,336	1,474	848	1,231	1,337	809	1,169	1,258
Taree .. .. .	960	1,509	1,625	924	1,393	1,475	841	1,283	1,393
Temora .. .. .	1,005	1,565	1,663	932	1,458	1,590	850	1,343	1,444
Terntfield .. .. .	954	1,408	1,494	858	1,222	1,313	825	1,160	1,251
Tumut .. .. .	938	1,465	1,629	926	1,420	1,552	846	1,307	1,439
Ulmarra .. .. .	973	1,427	1,565	939	1,378	1,465	894	1,355	1,421
Wagga Wagga .. .. .	937	1,627	1,792	898	1,424	1,560	825	1,315	1,403
Walcha .. .. .	962	1,302	1,488	921	1,250	1,379	867	1,198	1,295
Wellington .. .. .	945	1,274	1,379	900	1,229	1,308	815	1,114	1,223
Weston .. .. .	957	1,333	1,425	868	1,159	1,257	811	1,103	1,155
Windsor .. .. .	941	1,501	1,583	881	1,341	1,440	855	1,282	1,381
Wollongong .. .. .	985	1,508	1,640	928	1,376	1,457	799	1,241	1,326
Wyalong .. .. .	997	1,359	1,425	892	1,205	1,260	849	1,156	1,217
Yass .. .. .	1,032	1,503	1,602	912	1,306	1,394	826	1,187	1,262
Young .. .. .	1,008	1,556	1,666	908	1,350	1,457	852	1,313	1,376
Weighted Average for State (74 Towns) .. .. .	978	1,513	1,652	912	1,354	1,453	861	1,286	1,370

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1930. November.			1931. November.			1932. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
	A	B	C	A	B	C	A	B	C
<b>VICTORIA—</b>									
Ararat .. .. .	969	1,360	1,535	871	1,216	1,378	813	1,142	1,302
Bacchus Marsh .. .. .	980	1,421	1,559	887	1,316	1,423	773	1,108	1,260
Bairnsdale .. .. .	984	1,350	1,544	912	1,209	1,401	860	1,135	1,289
Ballarat .. .. .	923	1,213	1,407	834	1,095	1,279	769	1,064	1,213
Beechworth .. .. .	990	1,287	1,352	923	1,219	1,285	867	1,163	1,229
Benalla .. .. .	935	1,305	1,385	859	1,242	1,366	836	1,189	1,290
Bendigo .. .. .	908	1,241	1,383	853	1,149	1,268	786	1,097	1,206
Camperdown .. .. .	1,017	1,435	1,593	891	1,286	1,424	806	1,217	1,319
Casterton .. .. .	936	1,265	1,462	880	1,235	1,340	847	1,209	1,288
Castlemaine .. .. .	941	1,170	1,342	867	1,120	1,228	801	1,073	1,157
Colac .. .. .	912	1,481	1,576	851	1,318	1,453	803	1,237	1,367
Creswick .. .. .	930	1,128	1,141	842	974	1,000	827	958	985
Daylesford .. .. .	938	1,218	1,279	831	1,087	1,175	811	1,021	1,119
Dunolly .. .. .	920	1,081	1,150	854	1,002	1,058	812	973	1,013
Echuca .. .. .	934	1,294	1,460	843	1,189	1,294	779	1,079	1,199
Euroa .. .. .	1,023	1,354	1,508	850	1,416	1,238	828	1,161	1,237
Geelong .. .. .	903	1,305	1,448	813	1,181	1,368	783	1,140	1,307
Hamilton .. .. .	1,038	1,511	1,596	864	1,287	1,410	840	1,255	1,376
Healesville .. .. .	942	1,245	1,327	822	1,105	1,194	799	1,089	1,141
Horsham .. .. .	948	1,395	1,611	875	1,265	1,401	849	1,176	1,308
Kerang .. .. .	969	1,495	1,627	842	1,306	1,434	807	1,201	1,267
Koroit .. .. .	937	1,213	1,279	880	1,143	1,209	851	1,114	1,180
Korumburra .. .. .	899	1,376	1,508	855	1,223	1,364	778	1,099	1,242
Kyneton .. .. .	947	1,341	1,447	847	1,163	1,294	780	1,069	1,194
Lilydale .. .. .	970	1,383	1,484	874	1,240	1,361	833	1,183	1,280
Maffra .. .. .	959	1,520	1,670	851	1,240	1,323	812	1,185	1,259
Maldon .. .. .	961	1,093	1,145	888	1,019	1,072	833	945	998
Maryborough .. .. .	921	1,264	1,359	847	1,123	1,222	775	1,006	1,101
Melbourne .. .. .	895	1,380	1,518	812	1,246	1,360	754	1,160	1,282
Mildura .. .. .	1,000	1,584	1,804	915	1,458	1,652	879	1,398	1,526
Morwell .. .. .	964	1,455	1,567	858	1,279	1,371	802	1,237	1,296
Nhill .. .. .	971	1,366	1,557	884	1,213	1,345	866	1,166	1,307
Orbost .. .. .	989	1,371	1,575	917	1,272	1,373	874	1,229	1,331
Portland .. .. .	967	1,305	1,434	886	1,217	1,325	833	1,169	1,241
Port Fairy .. .. .	948	1,211	1,333	895	1,154	1,270	849	1,108	1,224
St. Arnaud .. .. .	1,038	1,357	1,538	896	1,225	1,357	869	1,212	1,290
Sale .. .. .	960	1,260	1,507	867	1,217	1,355	802	1,121	1,256
Seymour .. .. .	960	1,371	1,479	915	1,247	1,375	873	1,202	1,301
Shepparton .. .. .	960	1,502	1,659	856	1,266	1,432	792	1,186	1,313
Stawell .. .. .	993	1,305	1,414	900	1,199	1,314	865	1,142	1,244
Swan Hill .. .. .	937	1,521	1,792	845	1,371	1,592	812	1,338	1,536
Terang .. .. .	984	1,340	1,537	937	1,304	1,439	876	1,200	1,338
Traralgon .. .. .	931	1,322	1,483	842	1,197	1,367	780	1,153	1,277
Wangaratta .. .. .	967	1,461	1,592	854	1,316	1,418	814	1,268	1,380
Warracknabeal .. .. .	947	1,332	1,495	875	1,220	1,362	827	1,130	1,251
Warragul .. .. .	922	1,428	1,633	830	1,344	1,513	760	1,286	1,454
Warrnambool .. .. .	928	1,363	1,526	850	1,259	1,429	812	1,207	1,369
Wonthaggi .. .. .	922	1,323	1,442	842	1,232	1,359	773	1,155	1,227
Weighted Average for State (48 Towns) .. .. .	905	1,366	1,507	822	1,235	1,356	765	1,156	1,279

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1930. November.			1931. November.			1932. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
	A	B	C	A	B	C	A	B	C
<b>QUEENSLAND—</b>									
Ayr .. .. .	996	1,404	1,522	967	1,423	1,481	873	1,317	1,439
Barcardine .. .	1,062	1,447	1,569	1,078	1,447	1,543	911	1,283	1,346
Bowen .. .. .	1,002	1,355	1,490	982	1,344	1,432	932	1,283	1,384
Brisbane .. . .	818	1,164	1,281	815	1,125	1,235	748	1,050	1,151
Bundaberg .. .	877	1,203	1,298	875	1,167	1,212	817	1,105	1,160
Cairns .. . . .	947	1,483	1,698	937	1,421	1,574	888	1,360	1,575
Charleville .. .	1,005	1,487	1,742	968	1,435	1,626	904	1,326	1,474
Charters Towers	945	1,311	1,360	937	1,222	1,286	900	1,137	1,232
Chillagoe .. . .	1,168	1,379	1,431	1,194	1,392	1,451	1,126	1,330	1,383
Cloncurry .. . .	1,141	1,540	1,658	1,059	1,469	1,591	1,045	1,462	1,624
Cooktown .. . .	1,169	1,367	1,452	1,050	1,247	1,313	972	1,170	1,236
Cunnamulla .. .	1,054	1,501	1,580	982	1,399	1,464	911	1,306	1,393
Dalby .. . . .	872	1,227	1,464	872	1,240	1,370	799	1,161	1,263
Gayndah .. . .	960	1,262	1,361	971	1,287	1,373	859	1,135	1,241
Gladstone .. .	948	1,245	1,369	878	1,192	1,289	837	1,151	1,247
Goondwindi .. .	990	1,385	1,425	938	1,333	1,373	863	1,258	1,324
Gympie .. . . .	886	1,234	1,362	878	1,185	1,269	790	1,117	1,212
Hughenden .. .	1,082	1,516	1,595	1,069	1,494	1,595	979	1,374	1,486
Innisfail .. . .	1,017	1,544	1,708	990	1,576	1,681	969	1,525	1,680
Ipswich .. . . .	855	1,159	1,246	838	1,094	1,183	769	980	1,110
Longreach .. .	1,066	1,371	1,607	1,092	1,408	1,566	962	1,282	1,405
Mackay .. . . .	956	1,412	1,547	951	1,368	1,478	850	1,222	1,331
Maryborough ..	876	1,238	1,428	887	1,216	1,347	815	1,144	1,254
Mount Morgan	970	1,102	1,168	963	1,128	1,161	877	1,044	1,092
Nambour .. . .	923	1,289	1,406	911	1,240	1,319	794	1,092	1,200
Rockhampton ..	886	1,195	1,310	892	1,178	1,261	816	1,120	1,162
Roma .. . . .	941	1,321	1,461	922	1,253	1,373	850	1,179	1,298
Stanthorpe .. .	935	1,369	1,461	901	1,335	1,454	879	1,281	1,359
Toowoomba .. .	835	1,112	1,297	791	1,102	1,173	734	1,103	1,133
Townsville .. .	917	1,372	1,456	984	1,399	1,460	868	1,283	1,358
Warwick .. . .	856	1,185	1,262	827	1,156	1,222	788	1,095	1,153
Winton .. . . .	1,064	1,380	1,498	1,063	1,374	1,503	1,010	1,306	1,438
Weighted Average for State (32 Towns) .. .	863	1,211	1,330	859	1,178	1,276	790	1,102	1,196
<b>SOUTH AUSTRALIA—</b>									
Adelaide .. . .	894	1,323	1,443	793	1,152	1,274	754	1,079	1,227
Freeling .. . .	892	1,207	1,319	832	1,095	1,161	773	1,036	1,102
Gawler .. . . .	882	1,177	1,264	831	1,114	1,182	782	1,053	1,134
Kadina, etc. .. .	998	1,186	1,226	879	1,068	1,112	840	1,024	1,091
Kapunda .. . .	937	1,147	1,182	813	1,008	1,080	803	1,031	1,092
Kooringa .. . .	959	1,275	1,354	891	1,194	1,251	851	1,084	1,180
Millicent .. . .	875	1,279	1,358	842	1,207	1,280	801	1,087	1,200
Mount Gambier	902	1,160	1,281	802	1,047	1,192	783	1,045	1,174
Murray Bridge	899	1,250	1,340	791	1,054	1,153	723	976	1,055
Peterborough ..	977	1,389	1,461	872	1,188	1,329	808	1,155	1,256
Port Augusta ..	1,086	1,503	1,583	941	1,278	1,298	883	1,185	1,311
Port Pirie .. .	986	1,361	1,490	862	1,207	1,310	802	1,122	1,231
Quorn .. . . .	1,005	1,294	1,378	871	1,156	1,210	828	1,111	1,173
Renmark .. . .	1,116	1,577	1,752	951	1,345	1,477	946	1,341	1,472
Victor Harbour	925	1,479	1,626	869	1,329	1,467	825	1,273	1,418
Weighted Average for State (15 Towns) .. .	907	1,317	1,431	805	1,150	1,266	765	1,081	1,219

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1930. November.			1931. November.			1932. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
	A	B	C	A	B	C	A	B	C
<b>WESTERN AUSTRALIA—</b>									
Albany .. ..	983	1,337	1,409	961	1,289	1,349	858	1,179	1,213
Beverley .. ..	987	1,307	1,382	921	1,256	1,342	910	1,239	1,348
Bridgetown .. ..	1,072	1,427	1,516	1,042	1,359	1,437	905	1,234	1,332
Broome .. ..	1,325	1,801	1,983	1,276	1,752	1,934	1,243	1,704	1,901
Bunbury .. ..	995	1,416	1,502	881	1,300	1,341	852	1,267	1,330
Carnarvon .. ..	1,188	1,683	1,774	1,117	1,606	1,670	1,062	1,511	1,605
Collie .. ..	999	1,462	1,568	906	1,277	1,375	825	1,189	1,285
Geraldton .. ..	969	1,541	1,700	951	1,462	1,629	838	1,347	1,480
Greenbushes .. ..	1,046	1,250	1,342	1,020	1,197	1,243	958	1,123	1,156
Kalgoorlie and Boulder	1,080	1,398	1,493	1,038	1,475	1,509	997	1,453	1,554
Katanning .. ..	929	1,323	1,494	891	1,252	1,391	846	1,200	1,324
Leonora and Gwalia ..	1,247	1,444	1,510	1,135	1,398	1,464	1,079	1,343	1,395
Meekatharra .. ..	1,229	1,466	1,624	1,098	1,467	1,592	1,102	1,562	1,760
Narrogin .. ..	943	1,401	1,601	884	1,315	1,421	862	1,326	1,401
Northam .. ..	987	1,434	1,571	907	1,341	1,453	852	1,251	1,379
Perth and Fremantle ..	902	1,363	1,502	839	1,259	1,358	800	1,202	1,296
Wagin .. ..	1,007	1,434	1,464	970	1,282	1,367	914	1,169	1,243
York .. ..	940	1,275	1,377	864	1,193	1,272	817	1,146	1,225
Weighted Average for State (18 Towns)	937	1,378	1,508	875	1,292	1,384	832	1,235	1,330
<b>TASMANIA—</b>									
Beaconsfield .. ..	919	997	1,050	871	977	1,003	795	914	953
Burnie .. ..	994	1,355	1,489	881	1,267	1,348	843	1,212	1,299
Campbelltown .. ..	971	1,183	1,238	884	1,116	1,151	855	1,091	1,151
Deloraine .. ..	881	1,213	1,276	823	1,113	1,218	820	1,143	1,222
Devonport .. ..	935	1,379	1,402	844	1,265	1,329	833	1,251	1,307
Franklin .. ..	950	1,187	1,239	952	1,162	1,215	900	1,137	1,229
Hobart .. ..	932	1,390	1,557	834	1,281	1,419	809	1,251	1,379
Launceston .. ..	911	1,308	1,474	826	1,212	1,359	789	1,181	1,290
New Norfolk .. ..	923	1,292	1,318	832	1,148	1,214	856	1,171	1,224
Queenstown .. ..	1,068	1,387	1,444	961	1,288	1,369	942	1,304	1,393
Scottsdale .. ..	913	1,209	1,286	787	1,090	1,151	808	1,071	1,163
Ulverstone .. ..	883	1,217	1,348	841	1,150	1,269	866	1,142	1,228
Zeehan .. ..	1,103	1,301	1,334	1,002	1,200	1,233	994	1,192	1,225
Weighted Average for State (13 Towns)	935	1,349	1,492	843	1,246	1,371	817	1,220	1,330
<b>TERRITORIES(a)—</b>									
Canberra .. ..	1,057	2,037	2,163	963	1,528	1,638	899	1,459	1,573
<b>Weighted Averages—</b>									
Australia (200 Towns) ..	932	1,400	1,535	864	1,271	1,378	811	1,200	1,304
Thirty Towns .. ..	926	1,403	1,540	855	1,269	1,377	805	1,199	1,304
Six Capitals .. ..	922	1,414	1,551	851	1,276	1,383	800	1,202	1,307

(a) Not in Weighted Averages.

By deducting the index-number in column A from those in column B or C, the relative aggregate expenditure on housing accommodation can be ascertained. Thus for November, 1932, the index-number for food and groceries in Melbourne (column A) is 754. Subtracting this from 1,160 (column B) gives a difference of 406, which is the relative cost of house rent for houses of 4 rooms, and from 1,282 (column C) gives a difference of 528, which is the relative cost of house rent for houses of 5 rooms. Similarly the relative cost of housing accommodation can be ascertained for each of the towns included.

## B.—WAGES.

## § 1. Operations under Wages Board and Industrial Arbitration Acts.

1. General.—Particulars of the operations of Wages Boards and Industrial and Arbitration Courts under the Commonwealth and State Acts for the regulation of wages, hours, and conditions of labour were first compiled for the year 1913, and reviews to the end of each annual period appear in Labour Reports and Quarterly Summaries.

2. Awards, Determinations, Industrial Agreements.—The following table gives a summary for each of the years 1928 to 1932 :—

## AWARDS AND DETERMINATIONS MADE AND INDUSTRIAL AGREEMENTS FILED.

State.	1928.		1929.		1930.		1931.		1932.	
	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.
New South Wales .. ..	93	36	55	27	31	16	46	40	38	25
Victoria .. ..	73	..	46	..	83	..	204	..	103	..
Queensland .. ..	34	27	21	16	14	44	48	28	21	4
South Australia .. ..	14	4	13	9	17	1	64	15	18	8
Western Australia .. ..	19	28	15	29	8	38	7	10	5	4
Tasmania .. ..	10	3	4	..	20	1	31	3	11	3
Commonwealth Court .. ..	40	30	29	26	17	10	11	16	21	9
Commonwealth Public Service Arbitrator .. ..	6	..	4	..	5	..	1	..	1	..
Total .. ..	289	128	187	109	185	110	412	112	218	53

3. Boards Authorized, Awards, etc., in Force.—(i) *Totals for Australia.* The following table gives particulars at the dates specified for all States of Boards authorized, and including operations under the Commonwealth and State Arbitration Acts, of the number of awards, determinations, and industrial agreements in force :—

## BOARDS AUTHORIZED, AWARDS, ETC.—AUSTRALIA.

Dates.	Boards Authorized.	Boards which had made Awards or Determinations.	Awards or Determinations in Force.(a)	Industrial Agreements in Force.
31st December, 1913 ..	505	387(b)	575(c)	401
31st December, 1915 ..	573	498	663	546
31st December, 1920 ..	475	440	1,041	972
31st December, 1925 ..	575	524	1,181	607
31st December, 1930 ..	644	582	1,285	601
31st December, 1931 ..	651	583	1,317	614
31st December, 1932 ..	657	591	1,337	625

(a) Including awards made by Arbitration Courts and the Commonwealth Public Service Arbitrator. (b) Owing to the fact that a number of awards under the New South Wales Industrial Disputes Act (1908) were still in force, the Boards constituted for such industries under the Industrial Arbitration Act (1912) had not made any awards. (c) Excluding awards or determinations which expired in New South Wales (under the Act of 1908) on 31st December, 1913.

Considerable expansion of the principle of the fixation of a legal minimum rate of wage and of working conditions took place during the period under review. At the end of 1932, the number of awards or determinations and industrial agreements\* in force had increased by 762 and 224 respectively over the number in force at the 31st December, 1913.

\* The registration of industrial agreements is not provided for under the Victorian Act, but such agreements may be registered and filed under the provisions of the Commonwealth Conciliation and Arbitration Act, and are operative within the State.

(ii) *Summary for States.* The following table gives particulars for each State and the Commonwealth of the number of Boards authorized, etc., for the years specified :—

**BOARDS AUTHORIZED, AWARDS, ETC.—SUMMARY, 1913, AND 1932.**

Particulars.	At 31st Dec.	Commonwealth.		N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
		Court.	Pub-Ser. Arb.							
<i>Industrial and Wages—</i>										
Boards authorized ..	{ 1913 .. ..	..	..	216	135	75	56	..	23	505
	{ 1932 .. ..	..	..	(a) 319	187	2	76	19	54	657
Boards which have made Determinations ..	{ 1913 .. ..	..	..	123	123	74	47	..	19	386
	{ 1932 .. ..	..	..	(b) 279	176	2	66	17	51	591
<i>Awards and Determinations—</i>										
In force ..	{ 1913 .. ..	17	..	265	127	73	54	18	21	575
	{ 1932 .. ..	159	43	490	176	267	72	79	51	1,337
<i>Industrial Agreements—</i>										
In force ..	{ 1913 .. ..	228	..	75	..	5	11	82	..	401
	{ 1932 .. ..	141	..	140	..	131	33	173	7	625
<i>Commonwealth Court Awards—</i>										
Number in force in each State ..	{ 1913 .. ..	..	..	13	17	15	16	9	13	..
	{ 1932 .. ..	..	..	96	110	31	82	31	65	..
<i>Commonwealth Agreements—</i>										
Number in force in each State ..	{ 1913 .. ..	..	..	132	129	68	62	57	61	..
	{ 1932 .. ..	..	..	37	66	19	25	14	34	..
<i>Commonwealth Public Service Arbitrator—</i>										
Number of Determinations in force in each State ..	1932 .. ..	..	..	38	36	30	32	29	29	..

(a) Under Industrial Arbitration Act, (1926), Conciliation Committees have been appointed, and at the end of 1932, 263 Committees were in force.

**§ 2. Rates of Wage and Hours of Labour.**

**I. General.**—The collection of information respecting the current rates of wage payable in different callings and in occupations in various industries was first undertaken by the Bureau in the early part of the year 1913. The particulars are obtained primarily from awards, determinations and agreements under Commonwealth and State Industrial Acts, and therefore are the minimum rates prescribed. They refer generally to the capital city in each State, but in industries which obviously are not carried on in the capital cities, e.g., mining, agriculture, etc., the rates in the more important centres are taken. In cases where no award, determination, or agreement is in force, particulars are taken of the ruling union or predominant rate. During recent years the number of predominant rates of wage included in the tabulations has been reduced considerably, since most of the industries and occupations are now covered by awards, determinations, or industrial agreements.

The index-numbers for male adult workers are computed with the weighted average wage in 1911 as base (= 1,000) in order that comparisons might more readily be made between these index-numbers and the retail price index-numbers (food, groceries and rent—all houses) which are also computed to the year 1911 as base. In the case of females, however, it has not been possible to secure information for years prior to 1914, and the index-numbers are therefore computed with the weighted average rate of wage payable to adult female workers in Australia at 30th April, 1914, as base (= 1,000).

An extensive tabular presentation of the minimum rates of wage for adult male and female workers in the main occupations in the capital city of each State is given each year in the Appendix to the Labour Report.

2. **Weekly Rates of Wage, 1928 to 1932.**—(i) *General.* The arithmetical average of the rates of wage given in the Appendix referred to is taken for each industrial group. These averages are weighted in accordance with census results to give the average of all occupations for the States and for Australia.

(ii) *Adult Males—States.* The following table gives the weighted average nominal weekly rates of wage payable to adult male workers at the dates specified.

**WAGES.—ADULT MALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE PAYABLE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS.**

NOTE.—Index-numbers based on the average wage for Australia in 1911 (51s. 3d.) as base (= 1,000). The index-numbers in this table are comparable throughout.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia. (a)
No. of Occupations included ..	874	909	627	567	489	482	3,948

**RATES OF WAGE.**

	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
31st December, 1928 ..	102 7	99 8	101 2	96 2	99 6	93 3	100 5
31st December, 1929 ..	102 11	101 1	101 2	97 2	100 7	94 8	101 2
31st December, 1930 ..	99 1	96 11	92 5	92 8	99 7	92 1	96 9
31st December, 1931 ..	93 5	82 2	89 0	75 0	84 1	79 9	86 10
31st March, 1932 ..	92 9	81 2	88 11	74 1	83 4	79 0	86 1
30th June, 1932 ..	92 6	80 7	88 8	73 8	82 7	78 9	85 8
30th September, 1932 ..	85 4	78 8	88 8	73 6	82 7	78 7	82 5
31st December, 1932 ..	84 11	77 10	88 5	72 7	81 9	78 1	81 10

**INDEX-NUMBERS.**

31st December, 1928 ..	2,001	1,944	1,974	1,877	1,941	1,820	1,959
31st December, 1929 ..	2,007	1,972	1,975	1,896	1,963	1,848	1,974
31st December, 1930 ..	1,933	1,891	1,803	1,807	1,943	1,797	1,887
31st December, 1931 ..	1,823	1,603	1,737	1,463	1,641	1,556	1,694
31st March, 1932 ..	1,809	1,583	1,734	1,446	1,627	1,541	1,680
30th June, 1932 ..	1,804	1,573	1,731	1,438	1,612	1,536	1,672
30th September, 1932 ..	1,664	1,535	1,731	1,434	1,611	1,532	1,608
31st December, 1932 ..	1,657	1,518	1,726	1,416	1,595	1,523	1,597

(a) Weighted average.

The results show that at the 31st December, 1932, the weighted average nominal weekly rate of wage was highest in Queensland, followed in the order named by New South Wales, Western Australia, Tasmania, Victoria and South Australia. The average rates of wage declined rapidly during 1931, the results at the end of each quarter in all States showing lower average rates than those for the previous quarter. The weighted average nominal rate of wage for Australia at the end of the year was 81s. 10d., as compared with 86s. 10d. at 31st December, 1931, a reduction of 5s. per week. The greatest fall occurred in New South Wales where the average wage declined 8s. 6d. per week. The highest weighted average rate for Australia was recorded during the third quarter of 1929 when the average wage was 101s. 5d. per week.

(iii) *Adult Males—Industrial Groups.* The following table shows the average weekly rates of wage and index-numbers in each industrial group, and for all groups at the periods specified.



**WAGES.—ADULT MALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATES FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH INDUSTRIAL GROUP.**

NOTE.—Index-numbers for each industrial group and for all industrial groups, based on the average wage for all groups in 1911 (51s. 3d.) as base (= 1,000). The index-numbers in this table are comparable throughout.

Industrial Group.	Weighted Average Nominal Weekly Rate of Wage, and Index-Number at—							
	31st Dec., 1928.	31st Dec., 1929.	31st Dec., 1930.	31st Dec., 1931.	31st March, 1932.	30th June, 1932.	30th Sept., 1932.	31st Dec., 1932.
I. Wood, Furniture, etc.	Wage ..	s. d. 103/11	s. d. 104/10	s. d. 100/3	s. d. 85/7	s. d. 84/11	s. d. 84/7	s. d. 83/10
	Index-No.	2,028	2,046	1,956	1,669	1,657	1,650	1,636
II. Engineering, etc.	Wage ..	102/1	103/6	99/1	86/3	85/11	85/11	82/7
	Index-No.	1,993	2,019	1,933	1,683	1,677	1,677	1,612
III. Food, Drink, etc.	Wage ..	99/9	100/10	97/1	88/6	88/0	87/11	84/7
	Index-No.	1,947	1,967	1,894	1,727	1,717	1,716	1,650
IV. Clothing, Boots, etc.	Wage ..	99/4	99/6	99/5	83/11	81/6	81/5	77/4
	Index-No.	1,939	1,942	1,940	1,638	1,591	1,589	1,510
V. Books, Printing, etc.	Wage ..	117/10	119/1	116/5	102/0	99/10	99/10	98/4
	Index-No.	2,299	2,323	2,271	1,991	1,949	1,949	1,918
VI. Other Manufacturing	Wage ..	100/8	102/2	97/10	85/4	84/5	84/1	81/2
	Index-No.	1,964	1,994	1,909	1,664	1,647	1,641	1,584
VII. Building ..	Wage ..	112/4	113/0	109/8	98/9	98/2	97/11	94/4
	Index-No.	2,191	2,205	2,139	1,926	1,916	1,911	1,841
VIII. Mining, etc.	Wage ..	109/10	110/7	107/10	102/5	102/6	102/1	98/2
	Index-No.	2,143	2,157	2,104	1,999	2,000	1,992	1,916
IX. Railways, etc. . .	Wage ..	102/2	105/2	100/2	86/7	86/7	86/9	81/5
	Index-No.	1,994	2,052	1,955	1,690	1,689	1,693	1,589
X. Other Land Transport	Wage ..	96/3	96/9	92/10	83/11	84/3	83/11	78/7
	Index-No.	1,878	1,888	1,812	1,638	1,644	1,638	1,532
XI. Shipping, etc.(a)	Wage ..	103/3	107/0	99/6	81/10	80/7	81/6	81/0
	Index-No.	2,014	2,087	1,941	1,596	1,572	1,590	1,580
XII. Agricultural, etc.(b)	Wage ..	95/9	95/5	87/5	80/3	78/9	77/2	75/6
	Index-No.	1,869	1,863	1,706	1,566	1,536	1,506	1,474
XIII. Domestic, etc.(b)	Wage ..	93/3	92/5	91/3	85/3	85/0	85/0	77/4
	Index-No.	1,820	1,804	1,780	1,663	1,659	1,659	1,510
XIV. Miscellaneous ..	Wage ..	96/1	96/8	93/7	83/11	83/5	83/4	79/4
	Index-No.	1,874	1,886	1,826	1,637	1,627	1,627	1,548
All Industrial Groups (c)	Wage ..	100/5	101/2	96/9	86/10	86/1	85/8	82/5
	Index-No.	1,959	1,974	1,887	1,694	1,680	1,672	1,608

(a) Including the value of victualling and accommodation where supplied. (b) Including the value of board and lodging where supplied. (c) Weighted average.

The foregoing table shows that the highest average weekly wage at 31st December, 1932, was recorded in Group V. (Books, Printing, etc.), 98s. 3d. per week, followed by Groups VIII. (Mining), 98s. 2d. per week, VII. (Building), 93s. 11d. per week, III. (Food, Drink, etc.), 84s. 2d. per week, I. (Wood Furniture, etc.), 83s. 4d. per week, and II. (Engineering), 81s. 6d. per week. The lowest average rate was recorded in Group XII. (Agricultural, etc.), 74s. 9d. per week. During the year, rates of wage declined in all groups, the greatest decreases occurring in the following groups:—Domestic, etc., by 8s. 10d. per week; Clothing, Boots, etc., by 6s. 8d. per week; Railways, etc., by 5s. 8d. per week; Other Land Transport, by 5s. 8d. per week; Agricultural, etc., by 5s. 6d. per week; and Miscellaneous, by 5s. per week. The decrease during the year in the weighted average rate for all groups was 5s. per week. Compared with the average rates at 31st December, 1929, the highest point recorded for that date in any year, wages at the end of the year 1932 showed a decrease of 19s. 4d. per week.

(iv) *Adult Females—States.* The following table shows the weighted average weekly rate of wage payable to adult female workers for a full week's work in each State and Australia at the dates specified.

**WAGES.—ADULT FEMALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE PAYABLE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS.**

NOTE.—Index-numbers based on the average wage for Australia at the 30th April, 1914 (27s. 2d.) as base (= 1,000). The index-numbers in this table are comparable throughout.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.(a)
No. of Occupations Included ..	85	87	37	47	24	28	308

**RATES OF WAGE.**

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1928 ..	53 7	53 9	54 10	50 11	58 10	53 4	53 10
31st December, 1929 ..	53 11	54 1	54 10	51 4	58 10	53 9	54 1
31st December, 1930 ..	53 8	53 6	52 11	51 2	60 1	53 8	53 7
31st December, 1931 ..	49 8	45 10	47 11	43 11	51 7	45 8	47 5
31st March, 1932 ..	49 0	45 0	47 1	41 11	51 4	44 10	46 8
30th June, 1932 ..	49 0	44 7	47 1	41 10	50 0	44 4	46 5
30th September, 1932 ..	44 10	43 7	46 9	40 11	50 0	43 5	44 5
31st December, 1932 ..	44 8	43 0	46 9	40 11	49 7	43 4	44 2

**INDEX-NUMBERS.**

31st December, 1928 ..	1,973	1,979	2,017	1,875	2,164	1,964	1,980
31st December, 1929 ..	1,983	1,990	2,020	1,888	2,165	1,978	1,990
31st December, 1930 ..	1,974	1,968	1,947	1,884	2,211	1,976	1,971
31st December, 1931 ..	1,828	1,688	1,765	1,584	1,900	1,681	1,746
31st March, 1932 ..	1,803	1,656	1,733	1,543	1,888	1,650	1,716
30th June, 1932 ..	1,803	1,640	1,733	1,540	1,839	1,632	1,707
30th September, 1932 ..	1,649	1,603	1,720	1,505	1,839	1,597	1,635
31st December, 1932 ..	1,644	1,583	1,720	1,505	1,826	1,595	1,624

(a) Weighted average.

There was an increase in the nominal rates of wage in all States during 1928, with the result that the average wage for females for Australia increased from 52s. 10d. at 31st December, 1927, to 53s. 10d. by the end of 1928. Increases were recorded in four States during the third quarter of 1929, raising the average nominal wage for Australia to 54s. 2d. per week, the highest average rate recorded. There was very little movement in the average rates of wage for female employees during 1930, the average nominal rate at the end of the year being 53s. 7d. as compared with 54s. 1d. per week at the end of the year 1929. Wages for female employees showed a steady decline during 1931 and 1932, and at the end of the latter year the weighted average for Australia was 44s. 2d., as compared with 47s. 5d. per week at the end of 1931, a decrease of 3s. 3d. per week.

(v) *Adult Females—Industrial Groups.* The following table gives particulars of the weighted average weekly rate of wage payable to adult female workers in the industrial groups in which they are mainly employed, and in all groups combined.

**WAGES.—ADULT FEMALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE PAYABLE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH INDUSTRIAL GROUP.**

NOTE.—Index-numbers for each Industrial Group and all Industrial Groups, based on the average wage for all groups at 30th April, 1914 (27s. 2d.) as base (= 1,000). The index-numbers in this table are comparable throughout.

Date.	Industrial Group.					All Groups. (b)
	III. Food, Drink, etc.	IV. Clothing, Boots, etc.	I., II., V., and VI., All Other Manufacturing.	XIII. Domestic, etc.(a)	XIV. Miscel- laneous.	

**RATES OF WAGE.**

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1928	49 3	54 2	53 1	55 1	52 10	53 10
31st December, 1929	49 4	54 4	53 11	54 9	53 10	54 1
31st December, 1930	48 4	54 2	52 7	54 2	52 10	53 7
31st December, 1931	44 4	45 5	46 11	50 9	49 10	47 5
31st March, 1932 ..	43 11	44 0	45 11	50 8	49 10	46 8
30th June, 1932 ..	43 3	43 11	45 10	50 4	49 3	46 5
30th September, 1932	41 2	42 5	44 3	47 4	47 0	44 5
31st December, 1932	41 0	42 4	44 2	46 2	47 0	44 2

**INDEX-NUMBERS.**

31st December, 1928	1,813	1,993	1,954	2,029	1,946	1,980
31st December, 1929	1,815	1,999	1,984	2,015	1,982	1,990
31st December, 1930	1,777	1,994	1,934	1,994	1,945	1,971
31st December, 1931	1,630	1,672	1,728	1,869	1,834	1,746
31st March, 1932 ..	1,617	1,620	1,691	1,865	1,834	1,716
30th June, 1932 ..	1,591	1,617	1,686	1,853	1,817	1,707
30th September, 1932	1,515	1,562	1,629	1,742	1,730	1,635
31st December, 1932	1,508	1,559	1,625	1,700	1,730	1,624

(a) Including the value of board and lodging, where supplied. (b) Weighted average.

During the year 1932 rates of wage for female employees in all industrial groups showed a decline as compared with those for the previous year. The decrease in the rates in Group XIII. (Domestic, etc.), was 4s. 7d. followed by Group III. (Food, Drink, etc.) 3s. 4d. and Group IV. (Clothing, Boots, etc.) 3s. 1d. per week. The smallest decrease was in Group XIV. (Miscellaneous), 2s. 10d. per week. The weighted average for all groups decreased by 3s. 3d. per week.

3. Relative Hours of Labour and Hourly Rates of Wage, 1928 to 1932.—(i) *General.* The rates of wage referred to in preceding paragraphs relate to the minimum payable for a full week's work. The number of hours constituting a full week's work differs, however, in many instances between various trades and occupations in each State, and between the same trades and occupations in the several States. In order to secure what may be for some purposes a more adequate standard of comparison, it is desirable to reduce the comparison to a common basis, viz., the rate of wage per hour. Particulars are given in the following table classified according to States, for male and female occupations separately, at the end of the years 1928 to 1932. These particulars relate to (a) the weighted average nominal weekly wage, (b) the weighted average number of working hours constituting a full week's work, and (c) the weighted average hourly wage. The weighted average weekly wage relates to all industrial groups combined, and includes the value of

board and lodging where supplied in land occupations, and the value of victualling in marine occupations, whereas the number of working hours and the hourly wage relate to all industrial groups other than Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.). Many of the occupations included in these two groups are of a casual or seasonal nature, and the hours of labour in the agricultural and dairying industry are not generally regulated either by awards or determinations of industrial tribunals or otherwise, hence the necessary data for the computation of the average number of working hours are not available.

The general effect of reducing the rates of wage to a common basis (i.e., per hour) is to eliminate on comparison any apparent difference between the several States which may be due to unequal working time.

(ii) *Adult Males and Females.* Particulars of the weekly and hourly wages and hours of labour for adult males and females for the last five years are given in the table hereunder:—

### WEEKLY AND HOURLY WAGES AND HOURS OF LABOUR.—ADULT WORKERS.

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus.
<b>MALE WORKERS.</b>								
31st Dec., 1928	Weekly Wage (a) ..	102/7	99/8	101/2	96/2	99/6	93/3	100/5
	Working Hours (b) ..	44.17	46.70	43.96	46.67	45.30	46.85	45.27
	Hourly Wage (b) ..	2/4	2/2	2/4	2/1	2/2½	2/0	2/3
31st Dec., 1929	Weekly Wage (a) ..	102/11	101/7	101/2	97/2	100/7	94/8	101/2
	Working Hours (b) ..	44.14	46.83	43.96	46.83	45.58	47.09	45.34
	Hourly Wage (b) ..	2/4	2/2½	2/4	2/1½	2/2½	2/0½	2/3
31st Dec., 1930	Weekly Wage (a) ..	99/1	96/11	92/5	92/8	99/7	92/1	96/9
	Working Hours (b) ..	45.64	46.85	44.43	46.83	45.55	47.09	45.98
	Hourly Wage (b) ..	2/2½	2/1½	2/1½	2/0	2/2½	1/11½	2/1½
31st Dec., 1931	Weekly Wage (a) ..	93/5	82/2	89/0	75/0	84/1	79/9	86/10
	Working Hours (b) ..	44.22	46.88	44.98	46.83	45.55	46.76	45.51
	Hourly Wage (b) ..	2/2½	1/9½	2/0½	1/7½	1/10½	1/8½	1/11½
31st Dec., 1932	Weekly Wage (a) ..	84/11	77/10	88/5	72/7	81/9	78/1	81/10
	Working Hours (b) ..	44.19	46.86	44.99	46.83	45.51	46.75	45.49
	Hourly Wage (b) ..	1/11½	1/8½	2/0½	1/7	1/10	1/8½	1/10
<b>FEMALE WORKERS.</b>								
31st Dec., 1928	Weekly Wage ..	53/7	53/9	54/10	50/11	58/10	53/4	53/10
	Working Hours ..	43.93	45.40	44.01	46.03	45.57	46.07	44.79
	Hourly Wage ..	1/2½	1/2½	1/3	1/1½	1/3½	1/2	1/2½
31st Dec., 1929	Weekly Wage ..	53/11	54/1	54/10	51/4	58/10	53/9	54/1
	Working Hours ..	43.93	45.40	44.01	46.03	45.57	46.07	44.79
	Hourly Wage ..	1/2½	1/2½	1/3	1/1½	1/3½	1/2	1/2½
31st Dec., 1930	Weekly Wage ..	53/8	53/6	52/11	51/2	60/1	53/8	53/7
	Working Hours ..	45.85	45.44	44.01	46.03	45.57	46.07	45.48
	Hourly Wage ..	1/2	1/2	1/2½	1/1½	1/3½	1/2	1/2½
31st Dec., 1931	Weekly Wage ..	49/8	45/10	47/11	43/11	51/7	45/8	47/5
	Working Hours ..	43.93	45.44	44.56	46.03	45.57	46.07	44.88
	Hourly Wage ..	1/1½	1/0	1/1	0/11½	1/1½	1/0	1/0½
31st Dec., 1932	Weekly Wage ..	44/8	43/0	46/9	40/11	49/7	43/4	44/2
	Working Hours ..	43.93	45.44	44.56	46.03	45.57	46.07	44.88
	Hourly Wage ..	1/0½	0/11½	1/0½	0/10½	1/1	0/11½	0/11½

(a) Weighted average weekly rate in all industrial groups combined. (b) Weighted average working hours per week, and computed hourly rates of wage for all industrial groups excepting Groups XI. (Shipping, etc.), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in industrial groups XI. and XII.

(iii) *Index-Numbers.* The tendency in a majority of the States during the years 1924 to 1928 has been towards a slight reduction in hours of labour, particularly in Queensland and New South Wales, where a 44-hour week became operative on 1st July, 1925, and on 4th January, 1926, respectively. Further decreases were recorded in the hours of work per week for male employees during 1927 in all States excepting Queensland, where hours remained stationary. The decline in the other States was due mainly to the reduction of the standard hours of labour in Group II. (Engineering, etc.) from 48 to 44 hours per week, as awarded by the Commonwealth Court of Conciliation and Arbitration. The decline in the weekly hours in New South Wales, Victoria, South Australia, and Tasmania in 1928 was due mainly to the reduction of the standard hours of labour in Group V. (Books, Printing, etc.). During 1929 the hours of work per week for timber workers in certain States were increased by the Commonwealth Court, with the result that the weighted average hours for Australia were slightly increased. The repeal of the Acts in New South Wales and Queensland providing for a 44-hour week tended to increase the average number of hours of labour per week in those States during the year 1930. The reduction in the average number of hours of work per week in New South Wales in 1931 was due to the restoration of the 44 hours per week by an Act which came into operation on 5th January, 1931. The effect of these changes on the hourly rate of wage as compared with the general increase in the weekly wage is readily seen from the comparative index-numbers given in the following table:—

**WEEKLY AND HOURLY WAGE INDEX-NUMBERS.—ADULT WORKERS.**

NOTE.—Weighted average for Australia at 30th April, 1914 as base (= 1,000).

(Weekly Rates—M = 55/1; F = 27/2. Hourly Rates—M = 1/2; F = 0/6½.)

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
<b>MALE WORKERS.</b>								
31st Dec., 1928	{ Weekly Wage	.. 1,860	1,808	1,835	1,745	1,805	1,692	1,821
	{ Hourly Wage (a)	.. 2,004	1,867	2,001	1,788	1,916	1,728	1,928
31st Dec., 1929	{ Weekly Wage	.. 1,866	1,834	1,836	1,763	1,825	1,718	1,835
	{ Hourly Wage (a)	.. 2,011	1,895	2,001	1,808	1,923	1,751	1,940
31st Dec., 1930	{ Weekly Wage	.. 1,797	1,758	1,677	1,681	1,807	1,671	1,755
	{ Hourly Wage (a)	.. 1,912	1,813	1,846	1,724	1,922	1,708	1,851
31st Dec., 1931	{ Weekly Wage	.. 1,695	1,490	1,615	1,360	1,526	1,447	1,575
	{ Hourly Wage (a)	.. 1,873	1,527	1,749	1,383	1,617	1,480	1,676
31st Dec., 1932	{ Weekly Wage	.. 1,657	1,518	1,726	1,416	1,595	1,523	1,597
	{ Hourly Wage (a)	.. 1,701	1,451	1,748	1,355	1,584	1,464	1,584
<b>FEMALE WORKERS.</b>								
31st Dec., 1928	{ Weekly Wage	.. 1,973	1,979	2,017	1,875	2,164	1,964	1,980
	{ Hourly Wage	.. 2,205	2,140	2,250	2,003	2,333	2,092	2,172
31st Dec., 1929	{ Weekly Wage	.. 1,983	1,990	2,020	1,888	2,165	1,978	1,990
	{ Hourly Wage	.. 2,218	2,154	2,252	2,015	2,333	2,108	2,182
31st Dec., 1930	{ Weekly Wage	.. 1,974	1,968	1,947	1,884	2,211	1,976	1,971
	{ Hourly Wage	.. 2,113	2,127	2,172	2,011	2,383	2,105	2,128
31st Dec., 1931	{ Weekly Wage	.. 1,828	1,688	1,765	1,584	1,900	1,681	1,746
	{ Hourly Wage	.. 2,044	1,822	1,943	1,688	2,045	1,791	1,910
31st Dec., 1932	{ Weekly Wage	.. 1,644	1,583	1,720	1,505	1,826	1,595	1,624
	{ Hourly Wage	.. 1,837	1,711	1,863	1,605	1,967	1,700	1,777

(a) See footnote to following table.

4. **Weighted Average Nominal Weekly Hours of Labour, Adult Males.**—The following table shows the weighted average nominal hours of labour (exclusive of overtime) in a full working week for male workers in each State and Australia at the 31st December, 1928 to 1932.

## HOURS OF LABOUR.—WEEKLY INDEX-NUMBERS, ADULT MALES.

NOTE.—Index-numbers based on the average hours of labour for Australia at the 30th April, 1914 (48.93) as base (= 1,000). The index-numbers in this table are comparable throughout. Overtime is excluded.

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
31st Dec. 1928	Weighted average weekly hours of labour (a) ..	44.17	46.70	43.96	46.67	45.30	46.85	45.27
	Index-numbers ..	903	954	898	954	926	957	925
31st Dec., 1929	Weighted average weekly hours of labour (a) ..	44.14	46.83	43.96	46.83	45.58	47.09	45.34
	Index-numbers ..	902	957	898	957	932	962	927
31st Dec., 1930	Weighted average weekly hours of labour (a) ..	45.64	46.85	44.43	46.83	45.55	47.09	45.98
	Index-numbers ..	933	958	908	957	931	962	940
31st Dec., 1931	Weighted average weekly hours of labour (a) ..	44.22	46.88	44.98	46.83	45.55	46.76	45.51
	Index-numbers ..	904	958	919	957	931	956	930
31st Dec., 1932	Weighted average weekly hours of labour (a) ..	44.19	46.86	44.99	46.83	45.51	46.75	45.49
	Index-numbers ..	903	958	919	957	930	955	930

(a) Weighted average working hours per week for all industrial groups excepting Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.), in which working hours have not been generally regulated by industrial tribunals.

During the five years, 1928 to 1932, the average number of hours of labour per week showed little variation, the figure at the end of the year 1928 being 45.27 as compared with 45.49 at 31st December, 1932. In 1930, increases were recorded in New South Wales and Queensland, but in the other States the hours remained practically constant, the result of the changes being that the weighted average hours of labour for all States increased to 45.98 per week. At the end of 1931 the weighted average for Australia had declined to 45.51 per week, due to the reduction in hours in New South Wales caused by the restoration of the 44 hours of work per week. In Queensland, average hours increased slightly owing to revision by the Industrial Court of the standard hours in some industries and callings. The position at the end of 1932 with the average at 45.49, was practically unaltered.

5. Nominal and Real Wages, 1901 to 1932.—(i) *Nominal Weekly Wage Index-numbers—States.* The following table shows the progress in nominal weekly rates of wage for all industries in each State, the weighted average rate for Australia in 1911 being taken as the base (= 1,000). These results are based generally upon rates of wage prevailing in the capital city of each State, but in certain industries, such as mining, rates necessarily are taken for places other than the capital cities. For the year 1914 and subsequent years the index-numbers in the following table are based on the average wage for the four quarters of each year.

NOMINAL WAGE INDEX-NUMBERS, ADULT MALES.  
(WEIGHTED AVERAGE WAGE FOR AUSTRALIA IN 1911 = 1,000.)

States.	Number of Occupations included.		1901.	1911.	1914.	1921.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
	1901 to 1912.	1913 to 1930.												
New South Wales	158	874	858	1,003	1,093	1,862	1,846	1,909	1,974	2,003	2,012	1,983	1,851	1,734
Victoria ..	150	909	796	985	1,062	1,803	1,873	1,926	1,951	1,956	1,964	1,937	1,683	1,552
Queensland ..	87	627	901	997	1,035	1,879	1,905	1,955	1,953	1,971	1,976	1,898	1,769	1,731
South Australia	134	567	819	1,013	1,061	1,697	1,819	1,871	1,869	1,884	1,891	1,857	1,580	1,434
Western Australia	69	489	1,052	1,152	1,223	1,832	1,878	1,910	1,925	1,938	1,960	1,955	1,745	1,611
Tasmania ..	54	482	719	799	1,027	1,745	1,815	1,844	1,835	1,825	1,840	1,829	1,625	1,533
Australia (a)	652	3,948	848	1,000	1,081	1,827	1,861	1,914	1,946	1,963	1,972	1,939	1,752	1,639

(a) Weighted average.

During the period 1911 to the end of the year 1929 the average weekly rate of wage increased in New South Wales and Victoria, 100 per cent. ; in Queensland, 98 per cent. ; in South Australia, 87 per cent. ; in Western Australia, 70 per cent. ; and in Tasmania, 130 per cent., while the weighted average weekly rate for Australia increased 97 per cent. Comparing the yearly average rates for 1929 and 1932 nominal wages declined in all States during the period, South Australia showing the greatest fall with 24.2 per cent., followed by Victoria, 21.0 per cent., and Western Australia, 17.8 per cent. The smallest decline was recorded in Queensland, i.e. 12.4 per cent. The weighted average weekly rate for Australia declined 6.5 per cent. Compared with 1911 the average weekly nominal wage for Australia was 63.9 per cent. higher in 1932.

(ii) *Real Weekly Wage Index-numbers—States.* In comparing wages, two elements are of obvious importance, viz., (i) hours worked per day or week, and (ii) the cost of commodities and housing. Thus, 60s. per week of 60 hours represents the same hourly rate as 48s. per week for 48 hours. Similarly, if the cost of commodities and housing increases 25 per cent., e.g., if the prices index-number rises from 1,000 to 1,250, then 60s. per week (the index-number being 1,250) is effectively equal only to 48s. (when the index-number was 1,000). Or, again, if the prices index-number falls from 1,000 to 750, then 60s. per week, when the index-number is 750, would have the same purchasing power as 80s. when the index-number was 1,000. Ignoring for the present the number of hours worked, and assuming that the real value of the average wages is to be measured by their purchasing power, the actual average wages paid may be reduced to their effective value by applying the prices index-numbers to the nominal wages index-numbers. The following table shows the "real" wage index-numbers so ascertained in each State for each of the years indicated from 1901 to 1932.

In computing these real wage index-numbers for the respective years, the nominal wage index-numbers given in the preceding table have been divided by the retail price index-numbers, food, groceries and rent (all houses) for the capital cities. The resulting index-numbers show for each State and for Australia for the years specified the variations in real wages. The nominal wage index-numbers for the early years are based on rates of wage current at the end of December, the only data available. For the years 1914 onward, however, the nominal wage index-numbers used are based on the average wage for the four quarters in each year, while those in the preceding sub-sections relate to the December quarter. However, so far as the years 1901 and 1911 are concerned, as the movement in wages during any one year prior to 1914 was very slight, the December figures may stand for the yearly average without appreciable error.

REAL WEEKLY WAGE INDEX-NUMBERS.—ADULT MALES.

States,	1901.	1911.	1914.	1921.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
New South Wales .. .. .	961	973	906	1,079	1,048	1,035	1,079	1,089	1,050	1,107	1,160	1,150
Victoria .. .. .	915	1,037	961	1,038	1,073	1,069	1,095	1,120	1,084	1,158	1,162	1,126
Queensland .. .. .	1,172	1,090	1,038	1,244	1,241	1,183	1,222	1,236	1,220	1,317	1,345	1,376
South Australia .. .. .	948	957	929	1,027	1,053	1,076	1,073	1,089	1,067	1,166	1,178	1,133
Western Australia .. .. .	1,024	1,023	1,070	1,139	1,162	1,165	1,199	1,156	1,143	1,229	1,232	1,212
Tasmania .. .. .	827	838	942	977	1,044	1,037	1,072	1,099	1,064	1,111	1,104	1,067
Australia (a) .. .. .	964	1,000	948	1,076	1,081	1,072	1,102	1,115	1,082	1,152	1,185	1,168

(a) Weighted average.

In the table above, the real wage index-numbers are computed to the one base, that of Australia for 1911. Subject to the qualification already referred to, which, as has been pointed out, does not materially affect the figures, the index-numbers are comparable in all respects, and comparisons may be made as to the increase or decrease in the real wage index-number for any State over a period of years. Thus, comparing 1932 with 1901, and also with 1911, there has been an increase in the real wage in all States.

(iii) *Real Wages, allowing for Unemployment.* In the preceding table particulars are given as to variations in real wages in each State, due allowance having been made for variations in retail prices of commodities, though not for unemployment.

For years prior to 1913 the data available as to unemployment (*vide* C. Employment—sub-section 2, following) are so meagre that comparative results allowing for variations both in prices of commodities and in unemployment cannot be accurately computed for the several States. In the next table, for these earlier years the percentage of unemployment in Australia and the nominal wage index-numbers relate to the end of the year. For 1914 and subsequent years the wages index-numbers, percentages of unemployment, and retail prices index-numbers are the average for the year. Column I. shows the nominal wage index-numbers, and Column II. the relative percentages unemployed. These percentages of unemployment (converted into terms of employment) are applied to the index-numbers in Column I. to obtain rate of wage index-numbers allowing for unemployment, which are shown in Column III., computed with the year 1911 as base = 1,000. In Column IV. the retail prices index-numbers are shown, and in Columns V. and VI. the real wage index-numbers are given for full work, and allowing for lost time respectively. These are obtained by dividing the figures in Columns I. and III. respectively by the corresponding figure in Column IV.

A comparison between the figures in Columns I. and V. gives the relation between the nominal rates of wage and the purchasing efficiency of these rates. The figures in Column VI. show variations in real wages after allowing not only for variations in purchasing power of money, but for the relative extent of unemployment also.

**NOMINAL AND REAL WAGE INDEX-NUMBERS.**

Year.	I. Nominal Wage- Index- Numbers.	II. Percentage Unem- ployed.	Rate of Wage Index-Numbers, Allowing for Lost Time.		Real Wage Index-Numbers.	
			III. Re-computed. (1911 = 1,000).	IV. Retail Price Index- Numbers. (Food, Groceries, Rent—all houses.)	V. Full Work.	VI. Allowing for Unemploy- ment.
1901 ..	848	6.6	832	880	964	945
1907 ..	893	5.7	884	897	996	986
1908 ..	900	6.0	888	951	949	934
1909 ..	923	5.8	913	948	974	963
1910 ..	955	5.6	945	970	985	974
1911 ..	1,000	4.7	1,000	1,000	1,000	1,000
1912 ..	1,051	5.5	1,042	1,101	955	946
1913 ..	1,076	5.3	1,071	1,104	975	970
1914 ..	1,081	8.3	1,040	1,140	948	912
1915 ..	1,092	9.3	1,039	1,278	854	813
1916 ..	1,144	5.8	1,131	1,324	864	854
1917 ..	1,226	7.1	1,195	1,318	930	907
1918 ..	1,270	5.8	1,255	1,362	932	921
1919 ..	1,370	6.6	1,343	1,510	907	889
1920 ..	1,627	6.5	1,596	1,785	911	894
1921 ..	1,826	11.2	1,701	1,697	1,076	1,002
1922 ..	1,801	9.3	1,715	1,600	1,126	1,072
1923 ..	1,805	7.1	1,760	1,700	1,062	1,035
1924 ..	1,840	8.9	1,759	1,681	1,095	1,046
1925 ..	1,861	8.8	1,781	1,722	1,081	1,034
1926 ..	1,914	7.1	1,866	1,786	1,072	1,045
1927 ..	1,946	7.0	1,899	1,766	1,102	1,075
1928 ..	1,963	10.8	1,837	1,760	1,115	1,044
1929 ..	1,972	11.1	1,839	1,822	1,082	1,009
1930 ..	1,939	19.3	1,642	1,683	1,152	976
1931 ..	1,752	27.4	1,335	1,479	1,185	903
1932 ..	1,639	29.0	1,221	1,403	1,168	870

NOTE.—For years prior to 1914, the nominal wage index-numbers and the percentage unemployed relate to the end of the year only, but from 1914 onward these figures, in addition to those for retail prices, are averages for the whole year.



Nominal wages and retail prices fell less rapidly during 1932 than in 1931, but as wages declined to the greater extent, the real wage index for full work declined to 1168 from 1185, the highest point recorded in the investigation. Unemployment was worse in 1932 than during the previous year, reaching the highest point (29.0) yet recorded for Australia for a whole year, with the result that the index allowing for unemployment declined from 903 to 870, the lowest point recorded since 1921. Comparison with 1911 shows that the real wage for full time work was 16.8 per cent. higher, but allowing for unemployment was 13.0 per cent. lower during 1932.

### § 3. The Basic Wage and Child Endowment in Australia.

1. The Basic Wage.—(i) *General.* The "basic wage" in Australia is understood to mean the lowest wage which can be paid to an unskilled labourer on the basis of "the normal needs of an average employee regarded as a human being living in a civilized community."\* This wage is fixed by various industrial tribunals in Australia operating under Federal and State Arbitration Acts, and is varied from time to time according to changes in cost of living, constitution of the family unit, etc. In addition to the "basic" wage, these tribunals also determine what is known as the "secondary" wage—"the extra payment to be made for trained skill or other exceptional qualities necessary for an employee exercising the functions required."†

The Commonwealth Conciliation and Arbitration Act provides that the "basic" wage is to be considered by a Court constituted by the Chief Judge and not less than two other Judges, and must be approved by a majority of the members of the Court. The amended Act of 1930 provides that any alteration of the "basic" wage or the principles on which it is computed, or any variation or interpretation of any award where the variation or interpretation would result in any such alteration, shall have no force or effect unless it is considered by the Court constituted as above-mentioned.

By a judgment of the High Court on the 21st April, 1933, however, the "basic" wage is taken to mean, for the foregoing purpose, not only the "harvester" wage (see below), but also any "loading"‡ forming part of the primary wage of an unskilled labourer, the wage payable for skilled labour being assessed on the basis of that primary wage.

(ii) *History in Australia.* The doctrine of a basic wage was propounded as far back as 1890 by Sir Samuel Griffith, Premier of Queensland, and the same principle was enunciated in the New South Wales Arbitration Court in somewhat similar terms by Mr. Justice Heydon in 1905. In spite, however, of these pronouncements and the fact that wage-fixing tribunals had been in operation as early as 1896 (in the State of Victoria) it was not until the year 1907 that the first basic wage, as such, was declared by a Court in Australia. This declaration was made by Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, and is popularly known as the "Harvester Judgment" on account of its having been determined in connexion with H. V. McKay's Sunshine Harvester Works. The rate of wage declared in this case was 7s. per diem or £2 2s. per week for Melbourne, the amount considered reasonable for "a family of about five." The constituent parts of this amount were £1 5s. 5d. for food, 7s. for rent, and 9s. 7d. for all other expenditure.

The above rate has been varied from time to time in accordance with the retail price index-numbers (food, groceries and rent (all houses)) prepared by the Commonwealth Bureau of Census and Statistics for the city or town in which the persons affected are employed, and the rate so obtained has been taken by the Commonwealth Court of

\* Mr. Justice Higgins—*A New Province of Law and Order.* † *Ibid.* ‡ A "loading" is defined as an addition to the "basic" wage as compensation for some peculiar condition of labour or environment, and not by way of "margin for skill."

Conciliation and Arbitration as the minimum rate of wage for an unskilled male worker. The weekly wage rates (at 1st November, 1933) for the various capital cities as so varied under the two series of index-numbers in operation are as follows:—

	" A " Series.				" D " Series.*			
	£	s.	d.		£	s.	d.	
Sydney .. .. .	3	12	6		3	14	4	
Melbourne .. .. .	3	7	0		3	9	10	
Brisbane .. .. .	3	1	6		3	5	11	
Adelaide .. .. .	3	3	0		3	6	3	
Perth .. .. .	3	4	0		3	6	11	
Hobart .. .. .	3	10	6		3	11	0	
Six Capitals (Weighted Average) .. .. .	3	8	0		3	10	4	

The above amounts include the sum of 3s. per week known as the " Powers' three shillings", which was added in 1921 for the purpose of securing to the worker during a period of rising prices the full equivalent of the " Harvester " standard. The weekly rates given in the above table are the " Harvester " equivalents plus the " Powers' 3s." per week, but in accordance with the judgment of the Full Arbitration Court on 22nd January, 1931, such rates are subject to the ten per cent. reduction referred to in the following paragraphs.

The adequacy or otherwise of the amount allotted under the " Harvester " judgment has been the subject of much discussion, the author of the judgment himself urging on several subsequent occasions the need for its review. Frequent references as to the desirability of an investigation have been made by Judges of the Court, but it was not decided to hold an inquiry into the method of determining the basic wage until the latter portion of the year 1930.

A full description of the considerations which led to the reduction by 10 per cent. as from 1st February, 1931, of all wages controlled by the Commonwealth Court of Conciliation and Arbitration, and the refusal of the Court in June, 1932, to restore the " cut," appears in the preceding issue of the Official Year Book (*vide* p. 788).

The question of the restoration of the 10 per cent. " cut," was again brought before the Court by the Unions in 1933, the case being heard by the Full Court from 3rd April to 13th April, 1933. The main reasons stated on the affidavits filed in support of the applications were expressed thus—" The wages now payable to adult workers under the awards of the Court are insufficient, having regard to their commitments to provide a reasonable living according to Australian standards." " It is impossible to restore industries in Australia to a state of prosperity or to absorb thousands now unemployed unless and until the purchasing power of the community is increased so as to create a more even balance between production and consumption."

Argument by the representatives of the Unions was directed to proving—(a) that industry had recovered sufficiently to justify the restoration; (b) that the " All Houses " series of index-numbers, covering only 60 per cent. of household expenditure was not a satisfactory measure of total expenditure. The representatives of the employers opposed the restoration of any portion of the " cut." Very few witnesses were called by either side. The Court in a majority judgment (by their Honors Justices Dethridge, C.J., and Drake-Brockman, J.) delivered on the 5th May, 1933, refused to restore any portion of the 10 per cent. " cut," as it was not considered that the applicants had proved that industry generally had recovered to that extent. It was possible, however, that individual industries could stand the restoration, and the Court was prepared to hear claims in such instances as had already been done in the past. The Court stated, however, that it felt that the workers had lost more in " real " wages than the 10 per cent. " cut " owing to the method of adjusting wages according to the cost of living variations disclosed by the " All Houses " series of index-numbers (food and rent of all houses) especially since 1930, when the fall in prices first showed itself. It had decided, therefore, to adopt a new method of adjustment which would result in a

\* For explanation of this " series " see next page.

repayment from 1st May, 1933, of various small sums which the workers had lost in this way. The method adopted was as follows:—The "Harvester" (all houses) index-number for each town or combination of towns for the fourth quarter of 1929 was taken as the base; to this was equated the corresponding "All Items" (food, rent of four and five-rooms, clothing and miscellaneous expenditure) index-number for the whole year 1929, and the first-mentioned "All Houses" index varied according to the ratio of change shown between such "All Items" index and the corresponding "All Items" index for the fourth quarter, 1932, and similarly for all succeeding quarters. The index-number so derived is a "Harvester" index, and has been designated the "Harvester-All Items" index ("D" Series). Its value for wage fixation and variation is ascertainable in the ordinary way, that is from the "Table of Daily and Weekly Wages on Commonwealth Statistician's Index Numbers" where that table can be applied, or from the "Points" tables of the awards affected. The award was made applicable only to workers who had suffered the full 10 per cent. "cut."

The Court deplored the anomalies created by the varying basic wages throughout the States, and the fact that State tribunals had not followed the lead taken by the Commonwealth Court to reduce wages in conformity with the lowered capacity of industry to pay.

In a later declaration (Commonwealth Railways) the Court stated that when industrial affairs emerged from their present precarious condition into apparent stability so that a basic real wage may be reassessed with some assurance that as so reassessed it can be maintained, a simple system of adjusting that wage to changes in the cost of living would have to be adopted by the Court.

In a minority judgment, Mr. Justice Beeby stated that adjustments based upon any index-numbers were unsatisfactory and recommended (a) that rates (which closely approximated those of the majority judgment) should be granted to operate for a period of six months, or until further order; (b) that during such period the method of future fixation should be investigated; (c) that in view of the wide disparities in the basic wages of the various States the Court, by means of conference with State tribunals, should endeavour to arrive at some common formula for basic wage fixation; and (d) that the wages now paid in the pastoral industry should not be disturbed without further investigation.

(iii) *State Basic Wage Rates in Operation.* The basic wage rates fixed by State arbitration tribunals differ from those obtaining in the Federal sphere not only as regards amount, but in respect of constitution of family unit whose needs it purports to supply also.

The awards of various State tribunals in operation at the present moment are shown in the following statement. The Industrial Commission in New South Wales and the Industrial Court in Western Australia revised the living or basic rates of wage to be paid in the respective States during 1929. Particulars of these judgments are given in Labour Report, No. 20. The pronouncements of the Industrial Commission in New South Wales are published in the *New South Wales Industrial Gazette*, Vol. XXXVI., No. 6, and deal exhaustively with matters relating to basic wages. The living wage of £4 2s. 6d. per week for adult males determined in 1929 by the Industrial Commission in New South Wales was not altered during the years 1930 and 1931. On 26th August, 1932, the Commission declared the following rates—£3 10s. per week for adult males, and £1 18s. per week for adult females. The wage was altered as from 1st May, 1933, to £3 8s. 6d. for adult males, and £1 17s. for adult females, and from 1st November, 1933, to £3 6s. 6d. for adult males, and £1 16s. for adult females.

The declarations and reasons for the judgments of the Industrial Court in Western Australia are published in the *Western Australian Industrial Gazette*. A revision of the basic wage in this State was made in June, 1930, when the rate for adult male employees in the metropolitan area was determined at £4 6s., and for adult female employees at £2 6s. 5d. per week. These rates were reduced in March, 1931, to £3 18s. and £2 2s. 2d. respectively. On 5th November, 1931, the rates for the metropolitan area were declared at £3 13s. 6d. for adult male employees, and at £1 19s. 8d. for adult female employees. These rates remained in force until 1st March, 1932, when the basic rates for the metropolitan area

were declared at £3 12s. per week for adult male employees, and at £1 18s. 11d. per week for adult female employees. On the 2nd November, 1932, the rates were reduced to £3 10s. 6d. and £1 18s. 1d., and on the 28th February, 1933, to £3 9s. and £1 17s. 3d. per week. They were further reduced to £3 8s. and £1 16s. 9d. on the 30th June, 1933, and increased to £3 9s. 3d. and £1 17s. 5d. on the 3rd August, 1933, the latter being the first increase in the basic wage since the 1st July, 1929. The Court of Arbitration declares also basic rates of wage for areas outside the metropolitan area. The rates declared for these areas on 3rd August, 1933 were—Agricultural areas, etc. adult male employees, £3 9s. 6d. per week; adult female employees, £1 17s. 6d. per week; Gold-fields area, etc., adult male employees, £3 17s. 6d. per week; adult female employees, £2 1s. 10d. per week.

The Industrial Court in Queensland reviewed the basic rates of wage for that State during 1930, and reduced the rate for adult male employees from £4 5s. to £4 per week as from 1st August, 1930. A further revision during the year reduced the rate for adult males to £3 17s. per week as from 1st December, 1930. The Industrial Court fixed the basic rates as from 1st July, 1931, at £3 14s. per week for adult male employees, and at £1 19s. per week for adult female employees. These rates were in operation at the end of June, 1933. The declarations of the Court are published in the *Queensland Industrial Gazette*.

In 1925 the Board of Industry in South Australia determined the living wage for adult male employees in the metropolitan area at £4 5s. 6d. per week; and at £1 19s. 6d. per week for adult female employees. These rates were in operation for more than five years. On 11th October, 1930, after a public inquiry, the Board of Industry determined the living wage to be paid to adult male employees in the metropolitan area at 12s. 6d. per day or £3 15s. per week; and on 22nd December, 1930, the living wage for adult female employees in the metropolitan area was declared at £1 15s. per week. These rates were reduced by the Board of Industry on 17th August, 1931, after a public inquiry, to 10s. 6d. per day or £3 3s. per week for adult male employees; and on 4th December, 1931, to £1 11s. 6d. per week for adult female employees. These rates were still operative on the 30th June, 1933, notwithstanding an exhaustive review by the Board of Industry in 1933. These declarations are published in Bulletin No. 9 of Reports of the Board of Industry, South Australia.

A State basic rate of wage is not declared in Victoria and Tasmania. In these States the Wages Board system of wage fixation is in operation, and each Board determines the minimum rate of wage to be paid in the industry or calling under review, but in the majority of cases the practice of the Federal Arbitration Court of adjusting wages in accordance with the variations in the "Cost of Living" index-numbers is followed by these bodies.

#### BASIC WEEKLY WAGE RATES FIXED BY STATE INDUSTRIAL TRIBUNALS.

State.	Basic Wage.		Date of Operation.	Family Unit (for Male Rate).
	Males.	Females.		
	£ s. d.	£ s. d.		
New South Wales ..	(a) 3 6 6	1 16 0	1.11.33	Man, wife and child
Victoria ..	(b)	(b)	(b)	(b)
Queensland ..	3 14 0	1 19 0	1.7.31	Man, wife and three children
South Australia ..	(d) 3 3 0	(e) 1 11 6	..	" "
Western Australia ..	(f) 3 9 3	1 17 5	3.8.33(g)	(c) "
Tasmania ..	(b)	(b)	(b)	(b)

(a) Plus child allowances. (b) None declared, but follow Federal rates to a large extent. (c) Although the family unit is not specifically defined in the legislation of this State, the tribunal appointed to determine the basic wage has adopted the unit of man, wife, and two children. (d) Judgment dated 17th August, 1931. (e) Judgment dated 4th December, 1931. (f) Metropolitan Area. Basic wage for Goldfields Areas and other portions of State exclusive of the S.W. Land Division—males, £3 17s. 6d.; females, £2 1s. 10d.; Agricultural Areas and S.W. Land Division—males, £3 9s. 6d.; females, £1 17s. 6d. Under the provisions of the "Financial Emergency Act," the Court of Arbitration made orders, on the application of employers in a number of industries and callings, reducing the basic wage rate by 18, 20, or 22½ per cent. of 87s. per week, the basic wage rate on 30th June 1930, according to total salary received. (g) Date declared.

(iv) *Royal Commission on the Basic Wage, 1920.* The Federal basic wage referred to in (ii) *ante* was made operative in other parts of Australia on the basis of the relative retail price index-numbers applicable to the locality, but only one comprehensive attempt has been made by the Federal authorities to ascertain specifically what the actual requirements were in the various States according to reasonable standards of comfort, including all matters comprised in the ordinary expenditure of a household in respect of a family consisting of a man, wife and three children under fourteen years of age.

The attempt referred to was made by a Royal Commission, and its report, issued in 1920, recommended the following amounts for the various capital cities, viz. :—

					£	s.	d.
Sydney	..	..	..	..	5	17	1
Melbourne	..	..	..	..	5	16	6
Brisbane	..	..	..	..	5	6	2
Adelaide	..	..	..	..	5	16	1
Perth	..	..	..	..	5	13	11
Hobart	..	..	..	..	5	16	11
Six Capitals (Weighted Average) .. .. .					5	15	8

The recommendations of this Commission were not given effect to owing to the marked advance of the amounts suggested over ruling rates\* and the grave doubts expressed as to the ability of industry to pay such rates.

2. **Child Endowment.**—(i) *General.* The principle of supplementing wages by a payment in respect of dependent children under fourteen years of age has become very prominent in Australia in recent years, and is actually in operation in certain instances. The system has been in force in various forms in England and on the Continent as far back as 1795, the first instance occurring in England in that year.†

(ii) *The New South Wales Scheme.* The first attempt made in Australia to institute the system was in New South Wales in 1919, when a Bill was introduced into the State Parliament to provide a flat basic wage for a man and wife, and an allowance of 5s. per week for each child, the latter rate to be reduced on a sliding scale and to cease automatically when the income reached an amount of £3 per week above the basic wage. The Bill was rejected, and the matter dropped until the session of 1926-27, when measures providing for the payment of child allowances became law.‡ These measures provided for (a) the declaration of a basic wage for a man and wife,|| and (b) the payment of an allowance of 5s. per week in respect of each dependent child, subject to the provision that child allowances would be paid only to the extent by which the total earnings of the worker and his family fall short of the sum represented by the *basic wage* plus child allowance at the rate of 5s. per week for each child under the age of fourteen years. Thus, a worker with three dependent children receiving £5 by way of wages would not be entitled to the allowance, but would receive it in respect of a fourth child. These payments in New South Wales commenced to operate from 1st September, 1927. An amending Act, assented to on the 23rd December, 1929, provides that child endowment shall be 5s. per week for each child under the age of fourteen years except one in the family. The basic or living wage for adult male workers was determined by the Industrial Commission on the 20th December, 1929, at £4 2s. 6d. per week for a family unit consisting of a man, wife and one child. The fund from which child endowment payments are made is created by a levy on the wages bill of employers. The rate of tax to be collected by the Government from employers during the year 1930, was fixed at 1 per cent. This rate was in operation to 30th June, 1931. From 1st July, 1931, the rate was fixed at 2 per cent.

\* The "Harvester" equivalent for Melbourne at the time (September quarter, 1920) was £4 13s. per week, but only £3 18s. to £4 2s. was being paid on the basis of an annual index-number.

† A complete survey of the systems in force in various countries is contained in Elinor Rathbone's *Disinherited Family: A plea for the Endowment of the Family.*

‡ *Family Endowment Act 1927; Finance (Family Endowment Tax) Act 1927; Industrial Arbitration (Living Wage Declaration) Act 1927* and subsequent amendments.

|| This was subsequently declared at £4 5s. per week for adult males and £2 6s. per week for adult females. A separate rate for rural employees was declared later at £4 4s. per week.

(iii) *Commonwealth Public Service.* The first payment of child endowment allowances in Australia was in connexion with the Commonwealth Public Service. From 1st November, 1920, child endowment at the rate of 5s. per week for each dependent child under fourteen years of age was paid to officers, with a limitation of salary plus allowance of £500 per annum. Details regarding the introduction and method of calculating the payments under this scheme have been published in previous issues of the Official Year Book and will be found also in the Labour Reports issued by this Bureau.

(iv) *National Scheme.* The Federal Government, in June, 1927, called a conference at Melbourne of the Premiers of the several States to consider the question from a national standpoint. The Prime Minister submitted various estimates of cost of endowing dependent children under fourteen years of age in Australia at 5s. per week. After discussion, it was decided to refer the matter to a Royal Commission, to be appointed by the Commonwealth Government.

The Commission was not unanimous in its findings, and the opinions and recommendations of the members were embodied in two separate reports, which dealt exhaustively with the constitutional aspects, existing systems, industrial legislation, the basic wage, standard of living, regulation of wages, working conditions and cognate matters.

At the conference of Commonwealth and State Ministers held at Canberra during May, 1929, the Prime Minister stated that the Commission had submitted its report. The minority report recommended a scheme of child endowment financed entirely from the proceeds of taxation. For reasons stated to the Conference, the Government was not prepared to adopt this scheme. The Commonwealth Government agreed with the majority of the Commission that child endowment could not be separated from the control of the basic wage—a power which the Commonwealth did not possess and which the States were not prepared to relinquish to the Commonwealth. The Government, therefore, did not propose to establish any system of child endowment. It was generally agreed that any scheme which would increase the charges upon industry would be unwise at the present time. The result of the discussion was that it was agreed that the matter of child endowment was one to be dealt with as the State Governments should think proper.

The findings and recommendations in the *majority* and *minority* reports are given in Labour Report, No. 19.

#### § 4. Changes in Rates of Wage.

The collection of detailed information relating to changes in rates of wage was discontinued at the end of the year 1929, owing to the difficulty of securing reliable data. Officials of employers' organizations and trade unions reported that they were unable to supply definite particulars as to the number of workpeople affected by Commonwealth and State awards and determinations. In order to secure comprehensive and reliable data it would have been necessary to extend considerably the field of collection, and after serious consideration, and in view of the fact that the demand for the figures had been limited, it was decided that the additional expense and work involved were too heavy to justify the continuance of the tabulation.

### C.—EMPLOYMENT.

#### § 1. Industrial Disputes.

1. *General.*—Information with regard to the collection of particulars and the methods of tabulation of industrial disputes involving stoppage of work has appeared in previous issues of the Year Book, and is also given in the annual Labour Reports of this Bureau.

In annual tabulations, particulars are included of all disputes which either commenced or were current during the year under review. As regards "number of disputes", "establishments involved", and "workpeople involved", therefore, duplication will take place in respect of those disputes which started in and were unsettled at the end of a preceding year: the number involved will, however, be indicated in a footnote, to permit of due allowance being made in any calculations made from the tables.

2. Industrial Disputes Involving Stoppage of Work, Classified in Industrial Groups, 1932.\*—The following tables give particulars of industrial disputes which either commenced or were current during the year 1932, classified according to industrial groups. Similar information for the previous years was published in preceding issues of the Year Book and Labour Report.

## INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1932.

Class.	Industrial Group.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	Indirectly.	Total.		
								£
	NEW SOUTH WALES.							
III.	Food, drink, etc. . . . .	7	14	588	100	688	2,112	1,860
VI.	Other manufacturing . . . . .	2	2	565	160	725	4,060	2,080
VII.	Building . . . . .	3	3	60	..	60	121	138
VIII.	(a) Coal-mining . . . . .	71	71	15,510	1,870	17,380	54,143	57,734
	(b) Other mining, quarries, etc. . . . .	2	2	631	17	648	1,968	1,792
IX.	Railway and tramway services . . . . .	1	1	14	..	14	14	19
XI.	Shipping, wharf labour, etc. . . . .	2	2	54	..	54	54	37
XIV.	Miscellaneous . . . . .	4	4	391	9	400	953	760
	Total . . . . .	92	99	17,813	2,156	19,969	63,425	64,420
	VICTORIA.							
II.	Engineering, metal works, etc. . . . .	1	1	80	..	80	120	44
III.	Food, drink, etc. . . . .	4	17	741	50	791	4,763	3,371
IV.	Clothing, hats, boots, etc. . . . .	3	15	4,411	..	4,411	21,527	8,639
VI.	Other manufacturing . . . . .	1	1	8	..	8	88	70
VIII.	(a) Coal-mining . . . . .	2	2	1,175	..	1,175	73,020	53,405
XII.	Pastoral, agricultural, etc. . . . .	1	1	60	60	120	120	70
	Total . . . . .	12	37	6,475	110	6,585	99,638	65,599
	QUEENSLAND.							
III.	Food, drink, etc. . . . .	1	201	130	300	430	2,580	1,550
VIII.	(a) Coal-mining . . . . .	2	2	48	4	52	1,192	1,228
	(b) Other mining, quarries, etc. . . . .	3	3	582	852	1,434	15,980	14,968
XIV.	Miscellaneous . . . . .	4	4	301	..	301	1,414	795
	Total . . . . .	10	210	1,061	1,156	2,217	21,166	18,541
	SOUTH AUSTRALIA.							
X.	Other land transport . . . . .	1	1	78	4	82	164	100
XI.	Shipping, wharf labour, etc. . . . .	1	2	31	..	31	806	564
	Total . . . . .	2	3	109	4	113	970	664

\* Two disputes in Australia (involving 7 establishments and 162 workers) commenced in 1931 and were uncompleted at the end of that year, and in respect of number of disputes, number of establishments and workpeople involved, are duplicated in the figures for 1932.

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL  
GROUPS, 1932—*continued.*

Class.	Industrial Group.	Number.	Estab- lish- ments In- volved.	Workpeople Involved.			Working Days Lost.	Esti- mated Loss in Wages.
				Directly.	In- directly.	Total.		
WESTERN AUSTRALIA.								
VII.	Building .. .. .	1	6	60	..	60	1,440	1,296
VIII.	(a) Coal-mining .. .. .	2	2	933	..	933	2,799	3,040
	(b) Other mining, quarries, etc. .. .. .	2	2	298	162	460	3,334	2,852
XIV.	Miscellaneous .. .. .	3	6	1,240	..	1,240	3,630	2,350
	Total .. .. .	8	16	2,531	162	2,693	11,203	9,538
TASMANIA.								
IV.	Clothing, hats, boots, etc. .. .	1	3	1,103	..	1,103	15,442	6,437
VIII.	(b) Other mining, quarries, etc.	1	1	60	..	60	120	79
	Total .. .. .	2	4	1,163	..	1,163	15,562	6,516
NORTHERN TERRITORY.								
XIV.	Miscellaneous .. .. .	1	3	177	..	177	354	304
AUSTRALIA.								
II.	Engineering, metal works, etc.	1	1	80	..	80	120	44
III.	Food, drink, etc., manufacturing and distribution .. .. .	12	232	1,459	450	1,909	9,455	6,781
IV.	Clothing hats, boots, etc. .. .	4	18	5,514	..	5,514	36,909	15,076
VI.	Other manufacturing .. .. .	3	3	573	160	733	4,148	2,150
VII.	Building .. .. .	4	9	120	..	120	1,561	1,434
VIII.	(a) Coal-mining .. .. .	77	77	17,666	1,874	19,540	131,154	115,407
	(b) Other mining, quarries, etc. .. .. .	8	8	1,571	1,031	2,602	21,402	19,691
IX.	Railway and tramway services	1	1	14	..	14	14	19
X.	Other land transport .. .. .	1	1	78	4	82	164	100
XI.	Shipping, wharf labour, etc. ..	3	4	85	..	85	860	601
XII.	Pastoral, agricultural, etc. .. .	1	1	60	60	120	120	70
XIV.	Miscellaneous .. .. .	12	17	2,109	9	2,118	6,351	4,209
	Total—Australia* .. .. .	127	372	29,329	3,588	32,917	212,318	165,582

\* See footnote on page 731.

3. Industrial Disputes, Australia, 1928 to 1932.—The following table gives particulars of the number of industrial disputes, the number of workpeople involved, and the losses in working days and wages caused by disputes which either commenced or were current during each of the years 1928 to 1932, classified according to industrial groups.

Satisfactory comparisons of the frequency of industrial disputes in classified industries can be made only after omitting those which are recorded for coal-mining (Group VIII.). For the year 1913 the proportion of disputes in the mining industry represented practically 50 per cent. of the total number recorded. In subsequent years the proportion remained high, ranging from 45 per cent. in 1917 and 1918 to as much as 81 per cent. in 1921 and 1924. During the year 1932 disputes in the coal-mining industry represented 61 per cent. of the total, as compared with 59 per cent. during 1931. During the past five years working days lost through dislocations involving work-people engaged in coal-mining amounted to 4,394,534, representing 61 per cent. of the total loss of working days during the period.



## INDUSTRIAL DISPUTES.—AUSTRALIA.

Year.	Manu- facturing. (Groups I. to VI.)	Building. (Group VII.)	Mining (Group VIII.).		Transport, Land and Sea. (Groups IX. to XI.)	Miscel- laneous. (Groups XII. to XIV.)	ALL GROUPS.
			Coal Mining.	Other Mining, etc.			
1928 ..	28	6	190	4	42	17	287
1929 ..	29	8	193	11	9	9	259
1930 ..	27	..	126	4	5	21	183
1931 ..	15	4	79	8	10	18	134
1932 ..	20	4	77	8	5	13	127
1928 to 1932 ..	119	22	665	35	71	78	990

## NUMBER.

1928 ..	28	6	190	4	42	17	287
1929 ..	29	8	193	11	9	9	259
1930 ..	27	..	126	4	5	21	183
1931 ..	15	4	79	8	10	18	134
1932 ..	20	4	77	8	5	13	127
1928 to 1932 ..	119	22	665	35	71	78	990

## WORKPEOPLE INVOLVED.

1928 ..	3,304	290	72,267	237	17,992	2,332	96,422
1929 ..	25,364	732	68,751	8,015	1,286	456	104,604
1930 ..	6,034	..	40,336	851	2,610	4,391	54,222
1931 ..	5,005	159	23,351	2,015	2,515	4,622	37,667
1932 ..	8,236	120	19,540	2,602	181	2,238	32,917
1928 to 1932 ..	47,943	1,301	224,245	13,720	24,584	14,039	325,832

## WORKING DAYS LOST.

1928 ..	71,803	3,419	315,121	1,124	367,271	18,540	777,278
1929 ..	1,896,091	4,456	2,496,028	31,748	30,237	2,918	4,461,478
1930 ..	77,232	..	1,328,142	3,798	46,427	55,642	1,511,241
1931 ..	29,032	1,006	124,089	36,012	19,861	35,991	245,991
1932 ..	50,692	1,561	131,154	21,402	1,038	6,471	212,318
1928 to 1932 ..	2,124,850	10,442	4,394,534	94,084	464,834	119,562	7,208,306

## ESTIMATED LOSS IN WAGES.

1928 ..	£ 61,160	£ 3,225	£ 377,586	£ 1,069	£ 317,337	£ 14,982	£ 775,359
1929 ..	1,680,629	5,060	2,810,623	36,468	33,971	2,554	4,569,305
1930 ..	73,126	..	1,398,706	5,111	48,304	67,095	1,592,342
1931 ..	28,694	901	126,535	29,249	13,553	28,799	227,731
1932 ..	24,051	1,434	115,407	19,691	720	4,279	165,582
1928 to 1932 ..	1,867,660	10,620	4,828,857	91,588	413,885	117,709	7,330,319

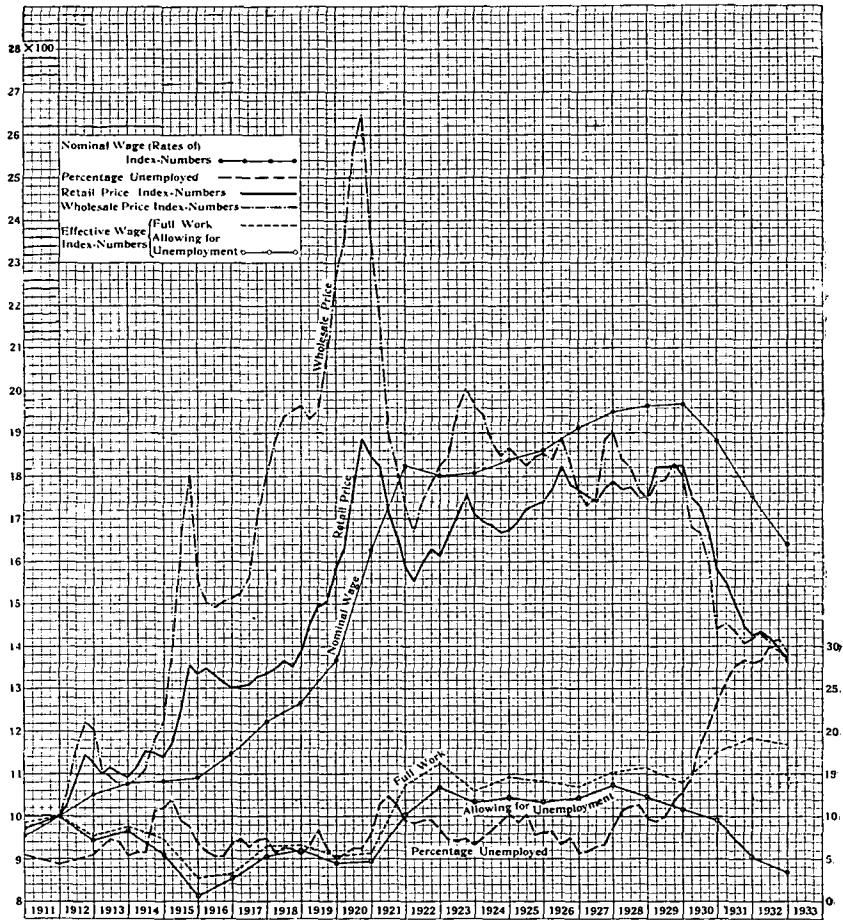
4. Summary of Disputes (involving Stoppage of Work), 1928 to 1932.—The following table gives particulars of the number of industrial disputes in each State in the years 1928 to 1932, together with the workpeople involved, the working days lost, and the estimated loss in wages.

## INDUSTRIAL DISPUTES.—SUMMARY.

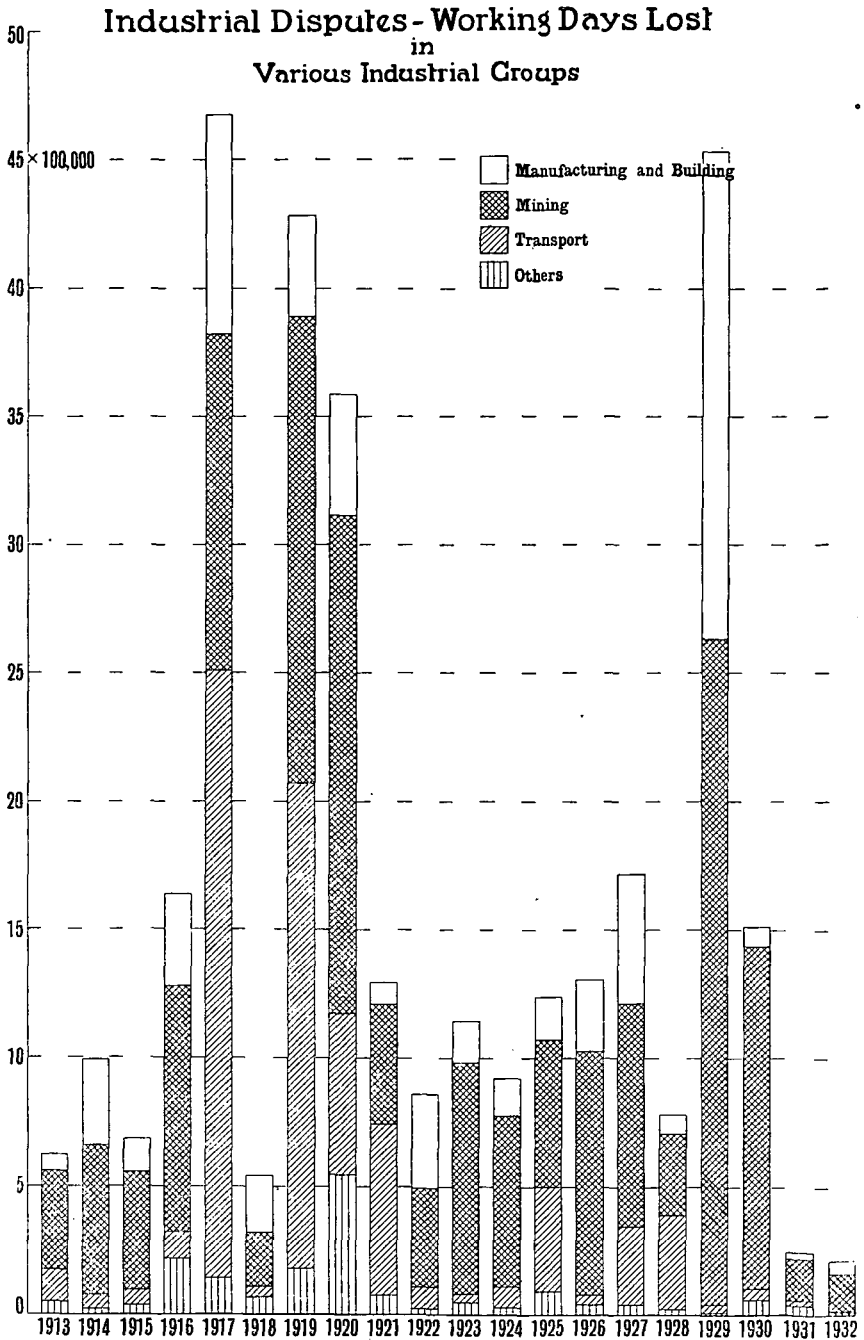
State or Territory.	Year.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	In-directly.	Total.		
New South Wales ..	1928	230	313	70,303	10,119	80,422	480,394	£ 521,768
	1929	231	513	75,197	4,152	79,349	3,146,038	3,421,412
	1930	156	384	46,418	2,151	48,569	1,443,366	1,516,296
	1931	87	131	21,002	1,801	22,803	136,037	133,068
	1932	92	99	17,813	2,156	19,969	63,425	64,420
Victoria ..	1928	21	51	4,309	1,567	5,876	110,659	96,454
	1929	11	320	8,893	12,719	21,612	1,296,676	1,130,565
	1930	5	5	385	23	408	7,744	7,228
	1931	10	92	4,022	621	4,643	27,862	24,884
	1932	12	37	6,475	110	6,585	99,638	65,599
Queensland ..	1928	12	329	2,958	670	3,628	70,764	62,008
	1929	4	23	1,691	8	1,699	3,443	3,379
	1930	10	31	1,561	70	1,631	9,881	11,059
	1931	15	358	5,079	642	5,721	51,096	47,415
	1932	10	210	1,061	1,156	2,217	21,166	18,541
South Australia ..	1928	8	40	2,257	1,211	3,468	54,835	45,999
	1929	2	21	532	40	572	9,040	7,910
	1930	7	246	2,870	6	2,876	22,778	22,987
	1931	5	5	160	6	166	655	582
	1932	2	3	109	4	113	970	664
Western Australia ..	1928	11	62	2,106	422	2,528	54,896	43,472
	1929	4	8	827	50	877	2,672	2,771
	1930	2	26	468	..	468	27,072	34,378
	1931	13	26	3,878	50	3,928	24,022	15,829
	1932	8	16	2,531	162	2,693	11,203	9,538
Tasmania ..	1928	4	8	371	84	455	5,595	5,508
	1929	6	40	333	142	475	3,409	3,068
	1930	3	3	270	..	270	400	394
	1931	2	2	155	6	161	5,409	5,278
	1932	2	4	1,163	..	1,163	15,562	6,516
Northern Territory ..	1928	1	1	45	..	45	135	150
	1929	..	..	..	..	..	..	..
	1930	..	..	..	..	..	..	..
	1931	2	2	245	..	245	910	675
	1932	1	3	177	..	177	354	304
Fed. Cap. Territory ..	1928	..	..	..	..	..	..	..
	1929	1	1	20	..	20	200	200
	1930	..	..	..	..	..	..	..
	1931	..	..	..	..	..	..	..
	1932	..	..	..	..	..	..	..
Australia ..	1928	287	804	82,349	14,073	96,422	777,278	775,359
	1929	259	926	87,493	17,111	104,604	4,461,478	4,569,305
	1930	183	695	51,972	2,250	54,222	1,511,241	1,592,344
	1931	134	616	34,541	3,126	37,667	245,991	227,731
	1932	(a) 127	372	29,329	3,588	32,917	212,318	165,582

(a) See footnote on page 731.

RETAIL AND WHOLESALE PRICES, NOMINAL AND EFFECTIVE OR REAL WAGE INDEX NUMBERS, AND PERCENTAGE OF UNEMPLOYED.—AUSTRALIA 1911 TO 1932.



NOTE.—The figures on the right represent the scale for the percentage unemployed according to trade-union returns. The figures on the left represent the scale for the several index-numbers, the year 1917 being taken in each case as base (= 1000). Since the end of the year 1917, the Retail Price Index-numbers (weighted average cost of food, groceries, and house rent (all houses) for the six capital cities), and the Wholesale Price Index-number (Melbourne) are shown in each quarter, while unemployment percentages are shown quarterly since the end of the year 1912 only. The other index-numbers since 1913 refer to the average for the whole year, but for purposes of convenience are plotted on the graph as at the end, not the middle, of the year. Retail Price and Wholesale Price Index-numbers show the average level during the whole of each quarter, and they also for convenience are plotted at the end, and not the middle, of each quarter. Average nominal wage for adult males, and real wage (full work) and (allowing for unemployment) for adult males.



**EXPLANATION.**—The scale refers to working days lost in hundred thousands. Thus, taking the year 1917, and comparing the shaded and blank sections with the scale, it will be observed that about 870,000 working days were lost in Manufacturing and Building, over 1,300,000 in Mining, over 2,300,000 in Transport, and about 150,000 in other industries.

Detailed information in regard to the disputes during these and previous years is given in the Labour Reports issued by this Bureau.

The number of industrial disputes recorded during 1932 was 127, as compared with 134 during the previous year. In New South Wales 92 disputes occurred. Of this number 71 involved workpeople engaged in mining and quarrying. Working days lost during 1932 totalled 212,318 for all disputes in Australia, as compared with 245,991 working days lost during 1931. The estimated loss of wages was £165,582 in 1932 as compared with £227,731 for the year 1931.

5. Particulars of Principal Disputes in 1932.—(i) *General.* The preceding tables show the number and effect of all disputes for the year 1932 classified according to Industrial Groups. The figures show large decreases compared with those of the previous year as regards number of working days and amount of wages lost. The number of disputes is the lowest recorded for any year during the period covered by the investigations. The tables show that of the total number of disputes (127) which occurred in 1932 no less than 77 were in connexion with the coal-mining industry, and of these 71 occurred in New South Wales. The total loss in wages through all disputes in Australia was £165,582 the lowest annual loss yet recorded. The loss through disputes in the coal-mining industry in New South Wales was £57,734 or 35 per cent. of the total loss in wages for Australia.

(ii) *Details regarding Principal Disputes.*—(a) *New South Wales.* A dispute occurred at Newcastle Victoria Tunnel Colliery in February, 1932, arising from an objection by the employees to the working of an afternoon shift. The dispute remained unsettled at the close of the year, and the mine was sub-leased to a party not connected with the old employees.

At Richmond Main Colliery there was a stoppage of work in February, 1932, owing to notice of dismissal having been given to four clippers who had reached the age of 21 years. A section of the clippers refused to work, and a little later all hands ceased duty. Negotiations between the parties concerned resulted in a compromise whereby two notices of dismissal were withdrawn. The mine was idle for about two weeks.

Refusal by the management to pay "water money" was the cause of a stoppage of work at Wallsend Colliery in July, 1932. A conference between the parties failed to effect a settlement, but a further conference resulted in the management agreeing to pay the amount in dispute, and work was resumed after a stoppage of more than a month.

An inter-union dispute in November, 1932, caused a stoppage of work for two weeks at the Wallarah Colliery. The question arose as to which union a certain man should belong. In an endeavour to settle the dispute, negotiations were entered into between representatives of the unions concerned, but no amicable agreement was reached. An arrangement was ultimately made that the man would join the Miners' Federation, and work was resumed.

(b) *Victoria.*—Several firms engaged in the manufacture of casings (sausage, etc.), were involved in a dispute which occurred in January, 1932. An agreement under which the employees had been working expired at the end of December, 1931, and the employers asked the employees to consider a new agreement with reduced rates of pay.

The new agreement was not acceptable to the employees who decided to cease work. After negotiation, a compromise was effected, the employees agreeing to accept a reduction of approximately 11 per cent. instead of the 15 per cent. suggested by the employers.

A number of textile manufacturing firms were idle for several days in August, 1932, owing to the refusal of the employees to accept an automatic reduction of approximately 15 per cent. in wages on the "cost of living" figures. An offer by the employers to impose a reduction of only  $7\frac{1}{2}$  per cent. was at first rejected by a section of the employees, though a few mills resumed on those conditions. The dispute having extended to Tasmania, a compulsory conference under the provisions of the Commonwealth Conciliation and Arbitration Act was called, but no agreement was reached. Judge Beeby then referred the matter into Court for hearing, contingent upon a resumption of work by all employees on the basis of the employers' offer of a  $7\frac{1}{2}$  per cent. reduction, and re-arrangement of all employees. On the 31st August, the employers issued a notice that the concession of a  $7\frac{1}{2}$  per cent. reduction would be withdrawn unless work was resumed on the 2nd September. A meeting of employees took place on the 1st September and it was decided to return to work.

A dispute at the State Coal Mine, Wonthaggi, in September, 1932, caused a stoppage of work for more than two months. Owing to lack of trade the management decided to reduce the staff, and in doing so, consideration was given to efficiency, domestic responsibilities, etc. The miners' federation claimed that dismissals should be made according to seniority, and also objected to a proposed 20 per cent. reduction in contract and day wage rates under an award of the State Coal Mine Industrial Tribunal. It appeared probable that this dispute would develop into a serious inter-State coal mining dislocation, especially as the central executive of the miners' federation, at a meeting in Sydney, decided to recommend a general strike throughout the coal-mining industry. A deadlock was reached in the negotiations for settlement, the main difficulty being the 20 per cent. wage reduction. A conference held at the end of October, between the Minister for Railways and representatives of the miners, paved the way to a settlement of the dispute, one result of this conference being the decision of the miners to ask the Chairman of the State Coal Tribunal to review the situation. New strike-settlement terms were fixed by Judge Winneke, providing for a 14 per cent. reduction instead of 20 per cent., and at a meeting of the miners these terms were accepted by a small majority, work being resumed on the 24th November.

(c) *Queensland.*—A dispute involving employees in the metalliferous mining industry, which occurred at Mount Oxide during the latter part of 1931, extended into 1932. About 100 employees of three mines were affected, the cause of the dispute being a reduction of wages. After a stoppage lasting about six months, negotiations between representatives of the parties concerned brought about a settlement, the management agreeing to pay rates slightly higher than those objected to by the employees.

A stoppage of work by about 200 employees at Mount Coolon gold mine, which occurred in May, 1932, through the proposal of the management to work one man to a machine instead of two as previously, was settled by direct negotiations between the parties. Work was resumed under original conditions except as regarding the machine in dispute, use of which was suspended pending the decision of an arbitrator, both parties agreeing to abide by his decision.

(d) *Tasmania.*—A dispute involving textile manufacturing firms occurred in Tasmania in August, 1932, approximately 1,100 employees ceasing work as a protest against an automatic reduction of wages under a Commonwealth Arbitration Court Award. As this was an extension of the same dispute in Victoria, it became interstate in character, a compulsory conference under the Commonwealth Conciliation and Arbitration Act was called, and a settlement was arrived at on the following terms:—A resumption of work on the basis of a wage reduction less by half than that permissible under the award; previous employees to be re-engaged; the settlement to be without prejudice to the rights of either party in any proceedings before the Court for a new award.

6. *Duration of Industrial Disputes, 1932.*—The following table gives particulars respecting the number of disputes, workpeople directly and indirectly involved, working days lost, and estimated loss in wages, consequent on the cessations of work recorded for Australia during the year 1932, classified under the adopted limits of duration :—

## INDUSTRIAL DISPUTES.—DURATION, AUSTRALIA, 1932.(a)

Limits of Duration.	Number.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
		Directly.	Indirectly.	Total.		
1 day and less .. .. .	48	11,516	708	12,224	12,149	£ 13,643
2 days and more than 1 day	22	4,185	392	4,577	9,114	8,166
3 days and more than 2 days	9	2,431	491	2,922	8,681	7,397
Over 3 days and less than 1 week (6 days) .. .. .	18	2,884	1,079	3,963	16,298	15,547
1 week and less than 2 weeks	11	4,599	500	5,099	33,342	19,524
2 weeks and less than 4 weeks	11	2,124	330	2,454	36,063	25,747
4 weeks and less than 8 weeks	5	391	41	432	11,199	10,211
8 weeks and over .. .. .	3	1,199	47	1,246	85,472	65,347
<b>Total .. .. .</b>	<b>127</b>	<b>29,329</b>	<b>3,588</b>	<b>32,917</b>	<b>212,318</b>	<b>165,582</b>

(a) See footnote on page 731.

Similar figures for the years 1913 to 1931 will be found in previous issues of the Year Book and in the Labour Reports issued by this Bureau.

7. *Causes of Industrial Disputes, 1913 to 1932.*—The following table shows the number of disputes, workpeople involved, and the working days lost in disputes during the years 1913 and 1927 to 1932, classified according to principal cause :—

## INDUSTRIAL DISPUTES.—CAUSES, AUSTRALIA.

Causes of Dispute.	1913.	1927.	1928.	1929.	1930.	1931.	1932.
NUMBER.							
1. Wages—							
(a) For increase .. .. .	42	24	8	8	..	4	5
(b) Against decrease .. ..	4	4	3	6	9	17	11
(c) Other wage questions	31	66	39	45	44	16	26
2. Hours of Labour—							
(a) For reduction .. .. .	3	14	2	6	4	2	2
(b) Other disputes re hours	7	4	2	2	..	..	..
3. Trades Unionism—							
(a) Against employment of non-unionists .. ..	8	12	6	3	..	1	2
(b) Other union questions	5	24	11	12	20	4	3
4. Employment of particular Classes or Persons .. .. .	44	152	105	87	48	50	50
5. Working Conditions .. .. .	51	72	48	31	27	22	11
6. Sympathetic .. .. .	5	5	9	6	11	5	2
7. Other Causes .. .. .	8	64	54	53	20	13	15
<b>Total .. .. .</b>	<b>208</b>	<b>441</b>	<b>287</b>	<b>259</b>	<b>183</b>	<b>134</b>	<b>127</b>

INDUSTRIAL DISPUTES.—CAUSES, AUSTRALIA—*continued.*

Causes of Dispute.	1913.	1927.	1928.	1929.	1930.	1931.	1932.
<b>WORKPEOPLE INVOLVED.</b>							
1. Wages—							
(a) For increase ..	8,633	7,316	2,775	1,414	..	2,053	1,295
(b) Against decrease ..	563	300	1,317	10,532	12,824	7,108	7,327
(c) Other wage questions	7,160	20,297	17,057	8,742	12,686	3,999	5,417
2. Hours of Labour—							
(a) For reduction ..	460	7,813	61	21,646	4,334	192	198
(b) Other disputes re hours	1,819	288	1,005	2,067	..	..	..
3. Trades Unionism—							
(a) Against employment of non-unionists ..	5,370	4,432	193	103	..	9	17
(b) Other union questions	1,418	25,848	2,311	4,367	4,160	2,240	501
4. Employment of particular Classes or Persons ..	11,370	55,174	35,379	22,933	7,751	12,023	12,556
5. Working Conditions ..	10,785	29,766	14,169	4,672	4,276	6,659	2,804
6. Sympathetic ..	947	1,484	6,123	11,604	4,010	1,953	316
7. Other Causes ..	1,758	48,039	16,032	16,524	4,181	2,331	2,486
<b>Total .. ..</b>	<b>50,283</b>	<b>200,757</b>	<b>96,422</b>	<b>104,604</b>	<b>54,222</b>	<b>37,667</b>	<b>32,917</b>

## WORKING DAYS LOST.

1. Wages—							
(a) For increase ..	100,069	150,691	6,548	7,433	..	15,425	5,990
(b) Against decrease ..	9,438	2,578	3,824	2,332,157	1,227,808	111,258	123,571
(c) Other wage questions	78,183	83,831	80,755	47,261	113,102	43,746	17,631
2. Hours of Labour—							
(a) For reduction ..	2,774	305,782	725	1,887,196	63,583	152	2,894
(b) Other disputes re hours	15,111	4,487	2,667	3,183	..	..	..
3. Trades Unionism—							
(a) Against employment of non-unionists ..	91,002	82,156	2,137	424	..	99	59
(b) Other union questions	32,388	204,802	8,900	49,924	50,225	11,752	6,261
4. Employment of particular Classes or Persons ..	191,723	310,425	423,555	78,492	24,683	38,567	36,054
5. Working Conditions ..	73,562	303,788	98,852	8,545	8,551	17,106	14,902
6. Sympathetic ..	24,066	3,573	106,358	23,482	17,648	4,070	1,096
7. Other Causes ..	5,212	261,468	42,957	23,381	5,641	3,816	3,860
<b>Total .. ..</b>	<b>623,528</b>	<b>1,713,581</b>	<b>777,278</b>	<b>4,461,478</b>	<b>1,511,241</b>	<b>245,991</b>	<b>212,318</b>

(d) See footnote, page 731.

The main causes of industrial disputes are "Wage" questions, "Working Conditions," and "Employment of Particular Classes or Persons." In each of the years 1913 to 1925, with the exception of 1922, the number of dislocations concerning wages exceeded those caused by any other question, and varied between a minimum proportion of 26 per cent. in 1922 and a maximum of 45 per cent. in 1916. During 1932 the number of disputes concerning "Wages" represented 33 per cent. of the total number for the year. The majority of the dislocations of work classified under the heading, "Employment of Particular Classes or Persons," are stoppages for the purpose of protesting against the dismissal of certain employees, who, in the opinion of their fellow-workers, have been unfairly treated or victimized. This class of dispute occurs very frequently in the coal-mining industry. The number of disputes over "Trade Union" questions has represented a fairly uniform proportion of the total number of disputes during the years under review, while stoppages of work concerning "Hours of Labour" increased during 1926 and 1927, but decreased during 1928 to 1932. "Sympathetic" disputes have not been numerous during the past five years.



8. Results of Industrial Disputes.—The following table shows the number of disputes, workpeople involved, and the working days lost in disputes throughout Australia during the five years 1928 to 1932, classified according to results :—

## INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO RESULTS.—AUSTRALIA.

Year.	Number.				Workpeople Involved.				Working Days Lost.			
	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.
1928 ..	39	228	14	1	7,362	85,306	2,814	178	55,757	674,076	16,309	178
1929 ..	70	135	44	5	11,200	69,859	7,150	15,304	38,943	4,315,760	43,174	26,302
1930 ..	36	117	24	1	4,133	45,204	3,343	520	13,497	1,358,044	25,177	13,000
1931 ..	27	80	25	..	5,917	26,182	5,406	..	47,191	142,006	49,222	..
1932 a	29	77	21	..	5,437	17,518	9,962	..	23,572	48,893	139,853	..

(a) See footnote, page 731.

The figures for the year 1929 in the above, and also in the following table, include the number of workpeople involved and the working days lost in 1929 in the dispute on the Northern Coalfield of New South Wales which commenced in March, 1929, and terminated in June, 1930.

9. Methods of Settlement.—The following tables show for Australia the number of disputes, workpeople involved, and working days lost in industrial disputes during the years 1913 and 1927 to 1932, classified according to the adopted schedule of methods of settlement :—

## INDUSTRIAL DISPUTES.—METHODS OF SETTLEMENT, AUSTRALIA.

Methods of Settlement.	1913.	1927.	1928.	1929.	1930.	1931.	(a) 1932.
NUMBER.							
Negotiations—							
Direct between employers and employees or their representatives	119	229	138	130	134	88	87
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act .. .. .	17	18	8	8	3	3	4
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference .. .. .	19	13	10	3	6	11	5
By reference to Board or Court .. .. .	22	19	8	1	2	1	2
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference .. .. .	4	19	6	6	..	4	3
By Filling Places of Workpeople on Strike or Locked out .. .. .	13	5	10	7	9	2	7
By Closing-down Establishment permanently .. .. .	1	10	3	3	1	2	1
By Other Methods .. .. .	13	122	99	96	23	21	18
<b>Total .. .. .</b>	<b>208</b>	<b>435</b>	<b>282</b>	<b>254</b>	<b>178</b>	<b>132</b>	<b>127</b>

(a) See footnote on page 731.

INDUSTRIAL DISPUTES.—METHODS OF SETTLEMENT, AUSTRALIA—*continued.*

Methods of Settlement.	1913.	1927.	1928.	1929.	1930.	1931.	(a) 1932.
<b>WORKPEOPLE INVOLVED.</b>							
Negotiations—							
Direct between employers and employees or their representatives	23,357	94,070	37,708	32,393	40,804	22,292	22,595
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act .. .. .	3,172	5,839	1,242	19,161	196	1,885	1,800
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference ..	6,505	3,763	2,009	487	3,476	3,871	1,640
By reference to Board or Court ..	12,774	4,314	2,975	56	184	42	416
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference ..	659	33,517	1,497	511	..	1,083	1,839
By filling places of workpeople on strike or locked out ..	658	533	11,047	5,411	2,940	222	460
By closing-down establishment permanently .. .. .	170	1,104	266	144	40	52	11
By other methods .. .. .	2,988	56,860	38,916	45,350	5,560	8,058	4,156
<b>Total .. .. .</b>	<b>50,283</b>	<b>200,000</b>	<b>95,660</b>	<b>103,513</b>	<b>53,200</b>	<b>37,505</b>	<b>32,917</b>

**WORKING DAYS LOST.**

Negotiations—							
Direct between employers and employees or their representatives	94,400	700,968	273,254	2,417,171	1,289,487	109,601	87,650
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act .. .. .	26,335	100,148	36,937	1,279,258	2,893	2,625	79,872
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference ..	187,871	80,815	38,878	5,261	56,648	25,257	7,423
By reference to Board or Court ..	221,769	60,236	29,533	56	1,272	252	3,408
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference ..	2,105	305,303	3,962	1,882	..	30,317	18,596
By filling places of workpeople on strike or locked out ..	14,139	9,706	266,369	610,686	34,612	27,042	6,874
By closing-down establishment permanently .. .. .	20,400	30,289	750	9,861	80	5,355	44
By other methods .. .. .	56,509	422,094	96,637	100,004	24,726	37,970	8,451
<b>Total .. .. .</b>	<b>623,528</b>	<b>1,709,559</b>	<b>746,320</b>	<b>4,424,179</b>	<b>1,409,718</b>	<b>238,419</b>	<b>212,318</b>

(a) See footnote on page 731.

The majority of the disputes were settled by direct negotiations between employers and employees, the proportion so settled ranging between 47 per cent. in 1924 and 76 per cent. in 1921. Of the 127 disputes during 1932, 87 or 69 per cent. were settled by this method. The proportion of dislocations settled by compulsory conferences or the intervention and assistance of officials under State or Commonwealth Arbitration Acts has varied considerably during the period under review, ranging from 2 per cent. in 1923 to 15 per cent. in 1920. The proportion in 1932 was 8 per cent. In connexion with the comparatively large number of disputes which are classified as having been settled "By other methods," many stoppages of work occur each year, principally at collieries, but the cause of such stoppages is not officially known to the employers or their representatives. Such stoppages usually last for one day, and work is resumed without negotiations for a settlement of the trouble.

§ 2. Fluctuations in Employment.

1. General.—The particulars given in the following tables are based upon information furnished by the secretaries of trade unions. The membership of the unions regularly reporting exceeds 415,000. Unemployment returns are not collected from unions the members of which are in permanent employment, such as railway and tramway employees, and public servants, or from unions whose members are casually employed (wharf labourers, etc.). Very few of the unions pay unemployment benefit, but the majority of the larger organizations have permanent secretaries and organizers who are closely in touch with the members and with the state of trade within their particular industries. In many cases unemployment registers are kept, and provision is made in the rules for payment of reduced subscriptions by members out of work. In view of these facts, and of the large membership of the unions from which quarterly returns are received, percentage unemployment results based on the information supplied may be taken to show the general trend of unemployment. Seasonal fluctuations in unemployment have been provided for by collecting returns quarterly since the 1st January, 1913, the yearly figures quoted representing the average of the four quarters.

2. Unemployment.—(i) States. In addition to the qualifications referred to above, allowance must be made for the circumstance that the industries included in the returns from trade unions are not quite identical in the various States. The results may, however, be taken as representing fairly well labour conditions generally.

UNEMPLOYMENT.—STATES, 1932.

State.	Unions Reporting.		Unemployed.	
	Number.	Members.	Number.	Percentage.
New South Wales .. .. .	113	186,072	60,421	32.5
Victoria .. .. .	81	117,164	30,978	26.5
Queensland .. .. .	46	47,578	8,949	18.8
South Australia .. .. .	59	30,140	10,241	34.0
Western Australia .. .. .	62	25,286	7,442	29.5
Tasmania .. .. .	34	9,194	2,423	26.4
<b>Australia .. .. .</b>	<b>395</b>	<b>415,434</b>	<b>120,454</b>	<b>29.0</b>

(ii) The following table gives the percentages in each State from the end of 1929 to 1932 with particulars at the end of 1912.

PERCENTAGE OF MEMBERS OF TRADE UNIONS RETURNED AS UNEMPLOYED IN EACH STATE.

State.	1912, end of Year.	1929.				1931.				1932.			
		4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.
	%	%	%	%	%	%	%	%	%	%	%	%	%
New South Wales	5.0	13.8	29.2	30.7	31.6	31.5	31.8	33.2	33.0	31.9			
Victoria .. .. .	6.7	13.5	24.4	26.5	26.8	25.6	26.0	27.7	27.0	25.2			
Queensland .. .. .	4.6	7.4	14.1	16.1	16.9	17.5	18.2	19.9	19.3	17.9			
South Australia .. .. .	5.1	17.8	30.6	32.4	33.3	33.7	33.1	35.2	35.4	32.2			
Western Australia	5.8	11.8	26.1	27.1	27.9	28.1	28.6	30.3	30.1	28.9			
Tasmania .. .. .	3.4	15.1	26.6	27.3	27.3	28.4	27.3	27.4	26.9	23.8			
<b>Total .. .. .</b>	<b>5.6</b>	<b>13.1</b>	<b>25.8</b>	<b>27.6</b>	<b>28.3</b>	<b>28.0</b>	<b>28.3</b>	<b>30.0</b>	<b>29.6</b>	<b>28.1</b>			

(iii) *Summary for Australia.* The appended table gives a summary for Australia for the last five years:—

## UNEMPLOYMENT.—AUSTRALIA.

Particulars.	Unions.	Membership.	Unemployed.	
			Number.	Percentage.
1928 .. .. .	375	423,422	45,669	10.8
1929 .. .. .	382	424,093	47,359	11.1
1930 .. .. .	395	438,874	84,767	19.3
1931 .. .. .	397	430,004	117,866	27.4
1932 .. .. .	395	415,434	120,454	29.0
1930 1st Quarter .. .. .	392	432,464	63,144	14.6
2nd „ .. .. .	394	435,239	80,595	18.5
3rd „ .. .. .	396	439,971	90,379	20.5
4th „ .. .. .	399	447,822	104,951	23.4
1931 1st Quarter .. .. .	397	440,234	113,614	25.8
2nd „ .. .. .	397	429,687	118,424	27.6
3rd „ .. .. .	396	426,603	120,694	28.3
4th „ .. .. .	396	423,493	118,732	28.0
1932 1st Quarter .. .. .	395	425,094	120,366	28.3
2nd „ .. .. .	396	413,742	124,068	30.0
3rd „ .. .. .	395	412,997	122,340	29.6
4th „ .. .. .	392	409,902	115,042	28.1

NOTE.—Similar figures for each of the four quarters of the years since 1912 will be found in the Labour Reports. The quarterly figures show the number of persons who were out of work for three days or more during a specified week in each quarter, and the annual figures, the average of the four quarters; the returns do not include persons out of work through strikes or lock-outs.

The highest percentage of unemployed yet recorded (30.0) was reached in the second quarter of 1932.

(iv) *Industrial Groups.* The next table shows the percentages unemployed in industrial groups. Industries or occupations in which employment is stable, such as railways, and those which are subject to exceptional fluctuations, such as wharf labour, agricultural, pastoral, etc., are not included. Other occupations—domestic, hotel employees, etc., are included in the “Other and Miscellaneous” group, as their returns are not sufficiently representative.

## UNEMPLOYMENT IN INDUSTRIAL GROUPS.—AUSTRALIA, 1932.

Industrial Group.	Number Reporting.		Unemployed.	
	Unions.	Members.	Number.	Percentage.
<b>Manufacturing:—</b>				
I. Wood, Furniture, etc. ..	16	18,648	7,172	38.5
II. Engineering, Metal Works, etc. ..	63	72,636	23,508	32.4
III. Food, Drink, Tobacco, etc. ..	51	35,549	6,714	18.9
IV. Clothing, Hats, Boots, etc. ..	22	33,342	7,060	21.1
V. Books, Printing, etc. ..	13	18,740	3,018	16.1
VI. Other Manufacturing ..	66	38,840	16,176	41.7
VII. Building .. .. .	47	50,037	20,225	40.5
VIII. Mining, Quarrying, etc. ..	21	26,750	9,162	34.3
X. Land Transport other than Railway and Tramway Services ..	12	17,575	5,039	26.2
IX., XI., XII., XIII., and XIV. Other and Miscellaneous ..	84	103,317	22,380	21.7
<b>All Groups .. .. .</b>	<b>395</b>	<b>415,434</b>	<b>120,454</b>	<b>29.0</b>

3. **Seasonal Employment in Australia.**—An investigation concerning the extent of seasonal employment in Australia was made during 1929. The State Statisticians were requested to furnish brief reports regarding the industries and callings in their respective States subject to seasonal fluctuations. From the reports received from these officials, supplemented by information from other sources, particulars were compiled and published in Official Year Book, No. 22, and in Labour Report, No. 19.

4. **Special Legislation for the Relief of Unemployment.**—The position in regard to unemployment in Australia became so serious during 1930, that the usual methods of providing funds for relief works and sustenance were found to be inadequate. The cessation of loans, and the general depression in industry and business, due mainly to the decline in the prices of primary products, brought about an economic crisis in all States. The number of persons thrown out of work increased rapidly, with little prospect of conditions improving during the immediate future. The Commonwealth and State Governments realized that special action was necessary to provide additional funds to relieve the distress caused by continued unemployment, as the available money was not sufficient to meet the abnormal conditions.

Special grants to the States were made by the Commonwealth Government, while special legislation relating to the relief of unemployment was enacted in all States with the exception of Western Australia. In New South Wales, Victoria and Queensland the Acts provided for special taxation for the purpose of creating funds for relief works and sustenance for the unemployed. In South Australia and Western Australia special taxation was not imposed, the moneys for relief of unemployed being voted by Parliament. In Tasmania special legislation was enacted authorizing the raising of certain sums of money for purposes of affording relief to unemployed persons.

Further references to the special legislation relating to unemployment, rates of tax and sustenance payments will be found in Labour Reports, Nos. 22 and 23.

### § 3. Apprenticeship.

In Year Book No. 16, pp. 602-3, information was given with regard to legislation relating to the question of apprenticeship. Tables were included showing the periods of apprenticeship fixed in the awards of the various industrial tribunals of the States and Commonwealth, also the proportion of apprentices to journeymen and journeywomen. This information has been omitted from the present issue. Reference to legislation covering apprenticeship will be found in the Appendix to Official Year Book, No. 23.

## D.—ASSOCIATIONS.

### § 1. Labour Organizations.

1. **Registration.**—(i) *Under Trade Union Acts.* The benefits obtained by registering trade unions under the Trade Union Acts in force in the various States are not considered of much value; consequently the statistics of registered trade unions of employees do not accurately represent the position of unionism. Further, the returns for past years are so defective as to be practically valueless, inasmuch as no reliable indication is afforded of the numerical and financial position of the unions. Some of the registered unions fail to supply returns; this non-supply may lead to cancellation of the registration. Others have obtained the cancellation of their certificates of registration, the apparent reason being that they proposed to register under the Commonwealth Conciliation and Arbitration Act or a State Arbitration Act. In Queensland, some of the largest labour unions withdrew from registration during 1911, mainly on account of the necessity for closer restriction of their objects as set forth in their rules, consequent on legal decisions affecting trade unions. In Victoria and in South Australia very few of the existing unions are registered under the Trade Union Acts. It will be seen, therefore, that the available information under this heading is too meagre for statistical purposes.

(ii) *Under Industrial Arbitration Acts.* Information with regard to registrations of employers' associations and trade unions under the various State Industrial Arbitration Acts will be found in previous issues of the Year Book. The latest information available as to registrations is as follows:—New South Wales, 168 industrial unions of employers and 152 industrial unions of employees, the membership of the latter being 277,485;

Queensland, 10 industrial unions of employers with 10,606 members, and 77 industrial unions of employees with approximately 108,285 members; South Australia, 25 organizations of employees with 18,562 members; Western Australia, 33 organizations of employers with 768 members, and 123 organizations of employees with 34,596 members. There is no provision in the South Australian Industrial Acts for the registration of organizations of employers, and in Victoria and Tasmania, where Wages Board systems of wage fixation are in operation, organizations of employers and employees are not required to register. Registration under Commonwealth legislation began in 1906. In that and the four following years, there was but one union of employers; another was registered in 1911. The unions of employees registered were 20 in 1906, with 41,413 members. In December, 1931, there were on the register 28 organizations of employers with 20,000 persons, firms or corporations affiliated, and 133 organizations of employees with approximately 670,000 members. On the 31st December, 1932, the registered organizations numbered 133 with a total estimated membership of 630,000.

2. Particulars regarding Trade Unions.—(i) *Types*. The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be merely a branch of a British or International union. Broadly speaking, there are four distinct classes of labour organizations, viz. :—(i) the local independent, (ii) the State, (iii) the interstate, and (iv) the Australasian or International, but a number of variations occur from each of these classes. The leading characteristics of each of these types were briefly outlined in Labour Report No. 2 (pp. 7 to 9) issued by this Bureau.

(ii) *Number and Membership*. As already stated, the figures for trade unions registered under the Acts do not represent the position of unionism in Australia. In 1912, the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics was established, and with the cordial co-operation of the officials of the labour organizations, comprehensive figures relating to the development of organized labour are now available. The following table shows the position at the end of 1932 :—

TRADE UNIONS, BRANCHES, AND MEMBERS, 1932.

State or Territory.	Number of Separate Unions.	Number of Branches.	Number of Members.
New South Wales .. ..	202(c)	583	314,050(c)
Victoria .. ..	151	406	196,989
Queensland .. ..	107	319	110,055
South Australia .. ..	110	171	54,109
Western Australia .. ..	129	185	50,160
Tasmania .. ..	78	71	14,699
Northern Territory .. ..	4	..	769
<b>Total .. ..</b>	<b>781</b>	<b>1,735</b>	<b>740,831</b>
<b>Australia (a) .. ..</b>	<b>361(a).</b>	<b>2,155(b)</b>	<b>740,831</b>

(a) Allowing for interstate duplication. The figures represent the number of distinct organizations and interstate groups of organizations in Australia—not the total number of organizations, which are practically independent and self-governing. (b) See remarks below. (c) Includes 13 unions with a membership of 890 in the Federal Capital Territory.

In the preceding table, the number of separate unions in each State refers to the number of unions which are represented in each State, exclusive of branches therein, and each union is counted once only. Except in the last line, the number of branches indicates the number of branches of State head offices, which may, of course, themselves be branches of an interstate or larger organization. In taking the total number of separate unions in Australia (see last line but one), it is obvious that, in the case of inter-state and similar unions, there will be duplication, since each such union is counted once in each State in which it has any branches. In the figures given in the last line, allowance has been made for this duplication. State branches of interstate or federated unions, as

well as sub-branches within a State, are included under the heading "Branches" in the third column—last line. The scheme of organization of these interstate or federated unions varies greatly in character, and the number of separate Commonwealth unions does not, therefore, fairly represent the number of practically independent organizations in Australia. In some of these unions the State organizations are bound together under a system of unification and centralized control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. There are, therefore, 361 distinct organizations and interstate groups of organizations in Australia, having 2,155 State branches and sub-branches, and a total of 740,831 members.

(iii) *Classification in Industrial Groups.* The following table shows the number of unions and members thereof in Australia at the end of each of the last five years. The number of unions specified refers to the number of different unions represented in each State; and, while interstate or federated unions are counted once in each State in which they are represented, sub-branches within a State are not counted.

TRADE UNIONS.—INDUSTRIAL GROUPS, AUSTRALIA.

Industrial Groups.	1928.	1929.	1930.	1931.	1932.
<b>NUMBER OF UNIONS.</b>					
<b>Manufacturing :—</b>					
I. Wood, Furniture, etc.	18 (a)	18 (a)	18 (a)	18 (a)	18 (a)
II. Engineering, Metal Works, etc.	60 (23)	61 (22)	63 (22)	63 (22)	63 (22)
III. Food, Drink, Tobacco, etc.	65 (33)	65 (33)	65 (32)	63 (34)	63 (34)
IV. Clothing, Hats, Boots., etc.	25 (12)	25 (12)	24 (12)	24 (12)	24 (12)
V. Books, Printing, etc.	14 (8)	14 (8)	15 (9)	15 (10)	15 (10)
VI. Other Manufacturing	78 (40)	79 (42)	79 (41)	76 (38)	77 (37)
VII. Building	51 (28)	50 (28)	51 (28)	51 (28)	51 (28)
VIII. Mining, Quarrying, etc.	17 (14)	18 (14)	18 (14)	16 (13)	16 (13)
IX. Railway and Tramway Services	51 (30)	52 (31)	52 (30)	51 (29)	51 (29)
X. Other Land Transport	12 (5)	11 (5)	12 (5)	11 (4)	11 (4)
XI. Shipping, etc.	58 (29)	59 (28)	59 (26)	57 (24)	57 (24)
XII. Pastoral, Agricultural, etc.	8 (3)	8 (3)	8 (3)	9 (4)	9 (4)
XIII. Domestic, Hotels, etc.	24 (20)	24 (19)	20 (15)	20 (15)	20 (16)
<b>XIV. Miscellaneous :—</b>					
(i) Banking, Insurance and Clerical	29 (19)	30 (20)	30 (20)	31 (19)	30 (19)
(ii) Public Service	144 (54)	143 (50)	143 (45)	143 (46)	145 (45)
(iii) Retail and Wholesale	9 (7)	9 (7)	9 (7)	8 (7)	8 (7)
(iv) Municipal, Sewerage and Labouring	14 (13)	14 (13)	14 (13)	14 (13)	14 (13)
(v) Other Miscellaneous	91 (37)	91 (35)	100 (36)	108 (40)	108 (40)
<b>Total .. .. .</b>	<b>768 (379)<sup>a</sup></b>	<b>771 (374)<sup>a</sup></b>	<b>780 (362)<sup>a</sup></b>	<b>780 (362)<sup>a</sup></b>	<b>780 (361)<sup>a</sup></b>

NUMBER OF MEMBERS.

<b>Manufacturing :—</b>					
I. Wood, Furniture, etc.	35,740	35,898	30,944	26,700	27,054
II. Engineering, Metal Works, etc.	87,417	85,425	79,081	74,316	72,883
III. Food, Drink, Tobacco, etc.	71,994	71,948	71,437	63,582	61,183
IV. Clothing, Hats, Boots., etc.	56,874	56,300	50,625	47,707	51,154
V. Books, Printing, etc.	19,771	19,817	19,822	18,703	18,128
VI. Other Manufacturing	46,779	44,693	44,742	42,553	40,578
VII. Building	60,416	61,191	59,629	52,041	52,582
VIII. Mining, Quarrying, etc.	43,044	43,098	42,405	36,037	32,846
IX. Railway and Tramway Services	116,061	113,281	106,968	92,202	97,889
X. Other Land Transport	20,632	18,817	18,211	17,595	17,158
XI. Shipping, etc.	38,361	38,308	38,050	36,039	32,994
XII. Pastoral, Agricultural, etc.	55,547	50,266	43,639	28,668	21,237
XIII. Domestic, Hotels, etc.	30,488	29,767	25,504	23,611	20,993
<b>XIV. Miscellaneous :—</b>					
(i) Banking, Insurance and Clerical	28,371	30,440	31,140	30,222	28,420
(ii) Public Service	79,175	79,773	81,275	81,395	80,889
(iii) Retail and Wholesale	31,034	31,887	28,859	26,630	24,983
(iv) Municipal, Sewerage and Labouring	48,691	46,577	41,027	32,541	30,639
(v) Other Miscellaneous	41,146	43,682	42,399	38,374	35,221
<b>Total .. .. .</b>	<b>911,541</b>	<b>901,168</b>	<b>855,757</b>	<b>769,006</b>	<b>740,831</b>

(a) Allowing for interstate duplication.

(iv) *Trade Unions—Numbers and Percentages of Male and Female Members.—Australia.* The Census of 1921 gives the percentage of male and female employees (i.e., persons in "receipt of wages or salary," and persons "unemployed"), 20 years of age and over, on the total male and female population, and by applying these percentages to the estimated total male and female population at the end of each year, an estimate of the number of adult employees of each sex in the year is obtained.

The following table shows separately for males and females (a) the number of members of trade unions, (b) the estimated number of employees of each sex 20 years of age and over in all professions, trades, and occupations, and (c) the percentage of the former (a) on the latter (b) at the end of each year, 1928 to 1932. The estimated number of employees includes all persons (over the age specified) in receipt of wages or salary, as well as those unemployed, and therefore embraces a large number of adults who are not eligible for membership of any trade union, such as certain persons employed in professional occupations, as well as others who, while eligible for membership so far as the nature of their trade or occupation is concerned, do not reside in a locality which is covered by any union devoted to their particular trade or occupation. Moreover the age at which persons are eligible for membership varies in different unions. The Census results are classified in quinquennial age groups, and age 20 years is taken as approximating to the age of admission to membership. A line has also been added showing the estimated numbers of "junior" workers under 20 years of age.

**TRADE UNIONS—NUMBER AND PERCENTAGES OF MALE AND FEMALE MEMBERS.—AUSTRALIA.**

Particulars.	1928.	1929.	1930.	1931.	1932.
<b>MALES.</b>					
Estimated Total No. of Employees 20 years of age and over .. .. .	1,288,200	1,302,400	1,313,000	1,321,000	1,330,000
No. of Members of Unions .. .. .	785,189	774,931	735,767	656,105	630,688
Percentage of Members on Estimated Total					
Number of Employees .. .. .	60.9	59.4	56.0	49.7	47.4
Junior Workers (under 20) .. .. .	239,050	241,000	243,400	244,850	246,500
<b>FEMALES.</b>					
Estimated Total No. of Employees 20 years of age and over .. .. .	304,000	308,200	311,600	314,600	317,250
No. of Members of Unions .. .. .	126,352	127,137	119,990	112,901	110,143
Percentage of Members on Estimated Total					
Number of Employees .. .. .	41.5	41.3	38.5	35.9	34.7
Junior Workers (under 20) .. .. .	134,200	136,000	137,500	138,870	139,980

(v) *Interstate or Federated Unions.* The following table gives particulars as to the number and membership of interstate or federated unions in 1932.—

**INTERSTATE OR FEDERATED UNIONS.—AUSTRALIA, 1932.**

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States. (a)	
Number of Unions .. .. .	21	12	19	23	41	116
Number of Members .. .. .	31,950	43,491	92,518	182,540	261,835	612,334

(a) Certain unions in this group have, in addition to branches in each of the six States, branches in the Northern Territory and the Federal Capital Territory.

It appears, therefore, that 116 out of the 361 separate associations and groups of associations in Australia are organized on an interstate basis. The membership of these 116 unions reaches 612,334 or 83 per cent. of the membership (740,831) of all unions.



3. **Central Labour Organizations.**—In each of the capital cities and in a number of industrial centres elsewhere, delegate organizations consisting of representatives from a group of trade unions have been established. Their revenue is raised by means of a per capita tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organization, which is usually known as the Labour or the Trades Hall Council, or the Labour Federation. In Western Australia a unified system of organization extends over the industrial centres throughout the State. In this State there is a provincial branch of the Australian Labour Party, having a central council and executive, and metropolitan and branch district councils, to which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council on the local councils in the smaller industrial centres of the State, the councils in each State are, as a matter of fact, independent bodies.

A new Central Labour Organization, called the Australasian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the Trade Unions of the Commonwealth, and was founded at an All-Australian Trade Union Congress held in Melbourne in May, 1927. The Australasian Council is based on the Metropolitan Trades and Labour Councils in each State, such bodies having the right to appoint two representatives to act on the Executive of the Council. The Metropolitan Trades and Labour Councils are the branches of the Australasian Council. In addition to the representatives from the Metropolitan Councils, the Executive consists of four officers, viz., the President, two Vice-Presidents, and a Secretary, who are elected by and from the All-Australian Trade Union Congress.

The objective of the Council is the socialization of industry, i.e., production, distribution, and exchange. The methods to be adopted are:—(a) The closer organization of the workers by the transformation of the Australasian Trade Union Movement from the Craft to an Industrial basis by the establishment of one Union in each industry; (b) the consolidation of the Australasian Labour Movement with the object of unified control, administration, and action; (c) the centralized control of industrial disputes; (d) educational propaganda among unions. The Australasian Council of Trade Unions is the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the Trade Union movement generally. It is also the body responsible for choosing the Australian workers' delegate to the Annual International Labour Conference at Geneva.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated thereto in each State at the end of the year 1932 :—

**CENTRAL LABOUR ORGANIZATIONS.—NUMBER, AND UNIONS AFFILIATED, 1932.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	F.C.Ter.	Total.
Number of Councils	3	5	6	2	9	3	1	29
Number of Unions and Branch Unions affiliated ..	95	169	74	55	209	60	10	672

The figures given in the preceding table as to number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated to the local trades councils in the several towns in which they are represented.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions the interests of the members of which are closely connected by reason of

the occupation of their members. Delegate councils of bakers, bread carters, and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades, may be so classed.

4. **Laws relating to Conditions of Labour.**—In Official Year Book No. 16, pp. 538 to 566, a conspectus was given of Labour Laws in force in Australia at the end of the year 1922, and of Acts and Regulations relating to Factories and Shops.

Information was contained in the same issue with regard to employment under Mining Acts, followed by a brief reference to Employers' Liability and Workmen's Compensation Acts and miscellaneous legislation relating to conditions of labour enacted by the States. A conspectus of the Tribunals for the Regulation of Wages and Conditions of Labour was also included.

## § 2. Employers' Associations.

1. **General.**—Recent investigations show that the spirit of association is no less manifest in the case of employers than in the case of workers. Associations for trade purposes merely are not included in the present chapter, which deals with those associations only whose members are united for their own protection, and for representation in cases before Arbitration Courts, Wages Boards and other wage-fixing tribunals. Associations of employers and employees are recognized under the Commonwealth Conciliation and Arbitration Act as well as under several State Acts, and organizations of these bodies may be registered.

The year 1922 was the first for which information was collected, and detailed particulars for that and subsequent years will be found in previous issues of the Official Year Book and in the Labour Reports.

2. **Employers' Associations in each State.**—The following table gives particulars of the number of employers' associations in each State at the end of the years 1928 to 1932 :—

### EMPLOYERS' ASSOCIATIONS.—STATES.

Year.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	Total.
NUMBER OF ASSOCIATIONS.							
1928 .. ..	146	140	76	56	59	28	505
1929 .. ..	146	154	80	56	62	29	527
1930 .. ..	146	152	83	58	66	29	534
1931 .. ..	148	157	85	60	67	30	547
1932 .. ..	148	158	85	60	68	30	549
NUMBER OF BRANCHES.							
1928 .. ..	907	525	188	13	301	1	1,935
1929 .. ..	921	526	191	12	301	6	1,957
1930 .. ..	930	495	197	12	297	7	1,938
1931 .. ..	906	465	197	18	306	7	1,899
1932 .. ..	907	461	185	18	297	10	1,878
MEMBERSHIP.							
1928 .. ..	55,353	33,626	18,393	6,751	10,390	2,668	127,181
1929 .. ..	57,839	36,357	20,113	6,871	11,410	2,752	135,342
1930 .. ..	56,430	37,790	18,791	7,218	11,723	2,717	134,669
1931 .. ..	55,417	37,389	18,807	7,311	10,969	2,535	132,428
1932 .. ..	54,005	37,342	18,929	6,656	10,189	2,504	129,625

There has been a large increase in the number of branches since the year 1926, due to the inclusion of associations representing agricultural interests, while the increase in total membership is partly attributable to a more complete collection of statistics relating to these organizations.

3. **Employers' Associations in Industrial Groups.**—The figures in the following table refer to Australia at the end of the years 1931 and 1932.

**EMPLOYERS' ASSOCIATIONS.—INDUSTRIAL GROUPS, AUSTRALIA.**

Class.	Number of Associations.		Number of Branches.		Membership.	
	1931.	1932.	1931.	1932.	1931.	1932.
<b>Manufacturing :—</b>						
I. Wood, Furniture, etc. ..	20	20	3	7	1,311	1,297
II. Engineering, etc. ..	16	16	12	12	3,028	3,000
III. Food, Drink, etc. ..	117	118	91	81	20,070	19,697
IV. Clothing, Hats, etc. ..	21	21	2	2	1,916	1,890
V. Books, Printing, etc. ..	45	45	2	2	2,876	2,873
VI. Other Manufacturing ..	51	51	3	2	3,529	3,537
VII. Building .. ..	30	30	13	13	2,665	2,501
VIII. Mining, Quarrying, etc. ..	12	12	..	..	241	228
X. Other Land Transport ..	19	19	21	21	2,472	2,365
XI. Shipping, etc. ..	16	16	7	7	275	263
XII. Pastoral, Agricultural, etc.	47	47	1,714	1,700	76,328	74,008
XIII. Domestic, Hotels, etc. ..	17	17	..	..	1,541	1,413
XIV. Miscellaneous .. ..	136	137	31	31	16,176	16,553
<b>Total .. ..</b>	<b>547</b>	<b>549</b>	<b>1,899</b>	<b>1,878</b>	<b>132,428</b>	<b>129,625</b>

The female membership of these associations was 5,153 for 1931, and 5,589 for 1932.

The organization of employers is relatively strongest in the pastoral and agricultural industries and in the manufacture and distribution of articles of food and drink. In the former case there has been considerable growth in organization among small farmers, and in the latter, the number of small shops purveying foodstuffs of which the proprietors are members of grocers', butchers', and other similar associations accounts for the large membership.

4. **Federations of Employers' Associations.**—In addition to the associations in various industries, there are central associations in each State, to which many of these separate organizations are affiliated. Examples of this kind of association are provided in the Chamber of Manufactures, Chamber of Commerce, and Employers' Federation in each State. Further, these State associations are, in some cases, organized on a federal basis, e.g., there is an Associated Chamber of Manufactures, an Associated Chamber of Commerce, or a Central Council of Employers, to which State branches are affiliated.

The affiliation of these associations is, however, of a very loose nature when compared with that of the Federated Trade Unions. Whereas in the latter case the central body has complete control of its State branches, in the case of the Employers' Associations each State body enjoys complete independence, the central body acting in a more or less advisory capacity only.

The following table gives particulars, so far as can be ascertained, of interstate or federated associations having branches in two or more States from 1928 to 1932 :—

**INTERSTATE OR FEDERATED EMPLOYERS' ASSOCIATIONS.**

Particulars.	Associations Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States.	
<b>NUMBER OF ASSOCIATIONS.</b>						
1928 .. .. .	3	3	3	11	16	36
1929 .. .. .	3	4	4	10	16	37
1930 .. .. .	4	3	4	12	16	39
1931 .. .. .	5	4	4	13	19	45
1932 .. .. .	5	4	4	13	19	45
<b>NUMBER OF MEMBERS.</b>						
1928 .. .. .	205	1,126	208	59,175	41,511	102,225
1929 .. .. .	201	1,066	594	60,729	43,166	105,756
1930 .. .. .	1,169	339	975	61,327	43,303	107,113
1931 .. .. .	1,190	359	741	61,813	42,871	106,974
1932 .. .. .	1,132	323	842	59,993	40,872	103,162

The above table shows that associations having 80 per cent. of the total membership (129,625) of employers' organizations are grouped together on an interstate basis.

## CHAPTER XXV.

### POPULATION.

#### § 1. Enumerations and Estimates.

The nature of the early "musters" of the population and the subsequent Census enumerations which have been conducted in Australia were reviewed in Official Year Book, Number 15, pp. 1083-5. This review was accompanied by a tabular statement showing the dates on which the various enumerations were made, and the numbers counted on such occasions.

#### § 2. Accuracy of Estimates of Population.

The results obtained at the Census attain a very high degree of accuracy and may be accepted without reservation. The estimates of population since the Census of 1921, which have been published in earlier Year Books, have been revised in accordance with the results of the Census of 30th June, 1933, and the revised figures are given in this chapter. These figures, however, are subject to further amendment.

Since the establishment of the Commonwealth Bureau of Census and Statistics attention has been given to the improvement of intercensal estimates. There was little doubt that the principal source of error was in the records of migration, and efforts were directed particularly to the improvement of these records with very gratifying results. The Census of 1911 disclosed an error in the pre-censal estimates of an amount equal to a percentage on the recorded oversea departures from Australia of 14.5 per cent. for males and 10 per cent. for females. After the Census of 1921 these adjusting factors were reduced to 1 per cent. for males and  $4\frac{1}{2}$  per cent. for females, and from the results of the Census of the 30th June, 1933, it would appear that the accuracy of the records of oversea migration is such that in future no adjustment of the recorded figures will be necessary.

It is improbable that the same degree of accuracy as has been attained in the record of external migration can be reached in the case of interstate movements. Records are made of interstate movements by sea, by rail, and by air, but to record the movements by road is impracticable.

#### § 3. Census of 1933.

In accordance with the provisions of the Census and Statistics Acts 1905-30, the third Commonwealth Census would have been taken in 1931. Owing to the necessity for economy in government expenditure, however, it was decided to defer this Census, and the date was subsequently fixed for the 30th June, 1933.

#### § 4. Censuses, 1881 to 1933.

1. **Census of 1933.**—The Census for the whole of Australia was taken as for the night between the 29th and the 30th of June, 1933, and was the third Census under the provisions of the Commonwealth Census and Statistics Act 1905-30, which provides

for the enumeration being dealt with from one centre, instead of each State being responsible for its own count as on previous occasions. The numbers recorded in the several States and Territories were as follow :—

POPULATION.—CENSUS 1921, AND CENSUS 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

States and Territories.	4th April, 1921.			30th June, 1933.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
<b>States—</b>						
New South Wales ..	1,071,501	1,028,870	2,100,371	1,318,728	1,282,376	2,601,104
Victoria ..	754,724	776,556	1,531,280	903,399	916,961	1,820,360
Queensland ..	398,969	357,003	755,972	497,394	450,395	947,789
South Australia ..	248,267	246,893	495,160	290,970	290,017	580,987
Western Australia ..	177,278	155,454	332,732	234,000	204,948	438,948
Tasmania ..	107,743	106,037	213,780	115,141	112,464	227,605
<b>Territories—</b>						
Northern ..	2,821	1,046	3,867	3,376	1,484	4,860
Federal Capital ..	1,567	1,005	2,572	4,807	4,140	8,947
<b>Australia ..</b>	<b>2,762,870</b>	<b>2,672,864</b>	<b>5,435,734</b>	<b>3,367,815</b>	<b>3,262,785</b>	<b>6,630,600</b>

2. Increase since Census of 1881.—(i) *Australia*. The increase of population between the Census of 4th April, 1921, and that of 30th June, 1933, was 1,194,866, of which 604,945 were males and 590,011 were females, as compared with an increase of 980,729, comprising 449,835 males and 530,894 females, for the preceding ten years. The population of each sex enumerated at the Censuses of 3rd April, 1881, 5th April, 1891, 31st March, 1901, 3rd April, 1911, 4th April, 1921, and 30th June, 1933, was as follows :—

POPULATION.—AUSTRALIA, CENSUS, AND AT 31st MARCH, 1931.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Date of Census.	Males.	Females.	Persons.	(a) Masculinity.
3rd April, 1881 ..	1,214,913	1,035,281	2,250,194	117.35
5th April, 1891 ..	1,704,039	1,470,353	3,174,392	115.89
31st March, 1901 ..	1,977,928	1,795,873	3,773,801	110.14
3rd April, 1911 ..	2,313,035	2,141,970	4,455,005	107.99
4th April, 1921 ..	2,762,870	2,672,864	5,435,734	103.36
31st March, 1931 (b) ..	3,317,027	3,197,750	6,514,777	103.72
30th June, 1933 ..	3,367,815	3,262,785	6,630,600	103.22

(a) Number of males to each 100 females.  
Census of 30.6.1933.

(b) These figures have been estimated from the

(ii) *States and Territories*. The postponement of the Census which ordinarily would have been taken in 1931 till 1933 created a divergence from the intercensal period of ten years which had been observed in Australia since 1881, and consequently the increase shown in the following table for the period 1921–33 (12½ years) is not directly comparable

with the results shown for the earlier periods. The corresponding increases for the ten-year period (1921-1931) have been estimated from the Census of 30th June, 1933, and have been inserted in the table. The increases in the population of the several States and Territories during the past four intercensal periods have been as follow :—

POPULATION.—STATES, ETC., INTERCENSAL INCREASES.

State or Territory.	1881-1891.	1891-1901.	1901-1911.	1911-1921.	1921-1931 (estimated)	1921-1933 (12½ years).
New South Wales .. {						
Number	374,129	230,892	293,602	453,637	451,153	500,733
Per cent.	49.90	20.54	21.67	27.55	21.48	23.84
Victoria .. {						
Number	278,274	61,230	114,481	215,729	266,265	289,080
Per cent.	32.30	5.37	9.53	16.40	17.39	18.88
Queensland .. {						
Number	180,193	104,411	107,684	150,159	164,598	191,817
Per cent.	84.39	26.52	21.62	24.79	21.77	25.37
South Australia .. {						
Number	39,119	42,813	50,212	86,602	80,057	85,827
Per cent.	14.15	13.57	14.01	21.20	16.17	17.33
Western Australia .. {						
Number	20,074	134,342	97,990	50,618	98,758	106,216
Per cent.	67.57	269.86	53.22	17.94	29.68	31.92
Tasmania .. {						
Number	30,962	25,808	18,736	22,569	10,682	13,825
Per cent.	26.76	17.60	10.86	11.80	5.00	6.47
Northern Territory {						
Number	1,447	<sup>b</sup> -87	<sup>b</sup> -1,501	557	1,114	993
Per cent.	41.93	<sup>b</sup> -1.78	<sup>b</sup> -31.20	16.83	28.81	25.68
Federal Capital Territory {						
Number	(a)	(a)	(a)	858	6,416	6,375
Per cent.	(a)	(a)	(a)	50.06	249.46	247.86
Australia .. {						
Number	924,198	599,409	681,204	980,729	1,079,043	1,194,866
Per cent.	41.07	18.88	18.05	22.01	19.85	21.98

(a) Included in New South Wales.

(b) Decrease.

For Australia as a whole, the increase during the period 1921-1931 was greater by 98,314 than that for the period 1911-1921, the percentage increase being 19.85 for 1921-1931, as against 22.01 for 1911-1921. During the earlier period the increase corresponds to 2.01 per cent. per annum, and in the latter, to 1.83 per cent. per annum.

§ 5. Distribution and Fluctuation of Population.

1. Present Number.—The population of Australia on the 31st December, 1932, was estimated at 6,604,517 persons, of whom 3,356,142, or 50.82 per cent., were males and 3,248,375, or 49.18 per cent., were females. The increase during the year 1932 was 51,226, equal to 0.78 per cent., males having increased by 22,929, or 0.69 per cent., and females by 28,297, or 0.88 per cent. Of the increase referred to, 54,176 was due to the excess of births over deaths. There was, however, a loss by migration of 2,950, which reduced the total gain in population to 51,226, the smallest, excepting the war period, since 1903.

2. Growth and Distribution.—In issues of the Year Book up to No. 15, the male and female populations of Australia as a whole were given at quinquennial periods from 1788, but it is considered that the abridged table presented herewith will suffice for general purposes.

## GROWTH OF POPULATION.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year.	Estimated Population at end of Year.							
	States.					Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern.	

## MALES.

(a)1800	3,780	..	..	..	..	..	..	..	3,780
1810	7,585	..	..	..	..	..	..	..	7,585
1820	23,784	..	..	..	..	..	..	..	23,784
1830	33,900	..	..	..	877	(b)18,108	..	..	52,885
1840	85,560	..	..	8,272	1,434	32,040	..	..	127,306
1850	154,976	..	..	35,902	3,576	44,229	..	..	238,683
1860	197,851	(b)330,302	(b)16,817	64,340	9,597	49,653	..	..	668,560
1870	272,121	397,230	69,221	94,894	15,511	53,517	..	..	902,494
1880	404,952	450,558	124,013	147,438	16,985	60,568	..	..	1,204,514
1890	602,704	595,519	223,252	166,049	28,854	76,453	..	..	1,692,831
1900	716,047	601,773	274,684	180,349	110,088	89,763	(c)4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	(b)1,062	2,751,730
1921	1,086,475	765,317	403,269	251,170	178,971	110,357	2,765	1,138	2,799,462
1922	1,112,359	789,541	411,975	255,181	184,478	110,268	2,652	1,467	2,867,921
1923	1,134,502	807,919	422,292	261,681	191,142	110,772	2,703	1,445	2,932,456
1924	1,160,872	825,967	431,892	268,615	197,692	110,253	2,781	1,696	2,999,768
1925	1,184,564	840,878	444,390	276,266	202,574	110,194	2,859	2,298	3,064,023
1926	1,212,168	855,109	453,044	285,014	206,822	108,920	3,145	2,902	3,127,124
1927	1,241,909	870,505	460,410	289,306	215,881	110,040	3,568	3,322	3,195,241
1928	1,266,424	879,580	468,431	289,643	225,108	110,781	3,230	4,670	3,247,867
1929	1,283,435	886,587	474,073	288,603	231,403	112,279	3,495	4,736	3,284,611
1930	1,294,636	892,552	481,701	288,626	232,918	113,544	3,598	4,732	3,312,307
1931	1,303,127	896,570	488,089	289,405	232,454	115,216	3,461	4,891	3,333,213
1932	1,315,252	900,812	492,686	290,262	233,110	116,109	3,351	4,560	3,356,142

## FEMALES.

(a)1800	1,437	..	..	..	..	..	..	..	1,437
1810	3,981	..	..	..	..	..	..	..	3,981
1820	9,759	..	..	..	..	..	..	..	9,759
1830	10,688	..	..	..	295	(b) 6,171	..	..	17,154
1840	41,908	..	..	6,358	877	13,959	..	..	63,102
1850	111,924	..	..	27,798	2,310	24,641	..	..	166,673
1860	150,695	(b) 207,932	(b) 11,239	61,242	5,749	40,168	..	..	477,025
1870	225,871	326,695	46,051	89,652	9,624	47,369	..	..	745,262
1880	336,190	408,047	87,027	128,955	12,576	54,222	..	..	1,027,017
1890	510,571	538,209	168,864	152,898	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,163	176,901	69,879	83,137	(c) 569	..	1,788,347
1910	785,674	654,926	273,593	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	(b) 910	2,659,567
1921	1,045,236	785,418	362,467	250,573	157,581	108,322	995	940	2,711,532
1922	1,069,198	800,749	370,433	256,423	161,075	109,503	962	1,124	2,769,467
1923	1,088,435	817,560	379,597	260,535	165,731	109,645	950	1,231	2,823,684
1924	1,112,229	831,217	390,257	266,337	170,654	109,425	950	1,378	2,882,447
1925	1,137,875	843,215	400,538	270,792	174,981	109,179	965	1,736	2,939,281
1926	1,164,632	856,928	409,550	275,923	178,447	108,663	957	2,137	2,997,237
1927	1,191,802	871,085	416,104	280,341	184,059	109,119	1,033	2,548	3,056,181
1928	1,216,875	882,233	422,598	282,965	189,566	109,546	1,033	3,567	3,108,383
1929	1,236,452	891,757	428,239	284,396	195,297	111,007	1,295	3,711	3,152,154
1930	1,251,934	900,137	435,237	285,873	198,767	111,761	1,376	3,987	3,189,072
1931	1,263,421	907,091	441,860	287,708	201,317	113,255	1,396	4,030	3,220,078
1932	1,276,728	912,670	446,654	289,067	203,302	114,505	1,445	4,004	3,248,375

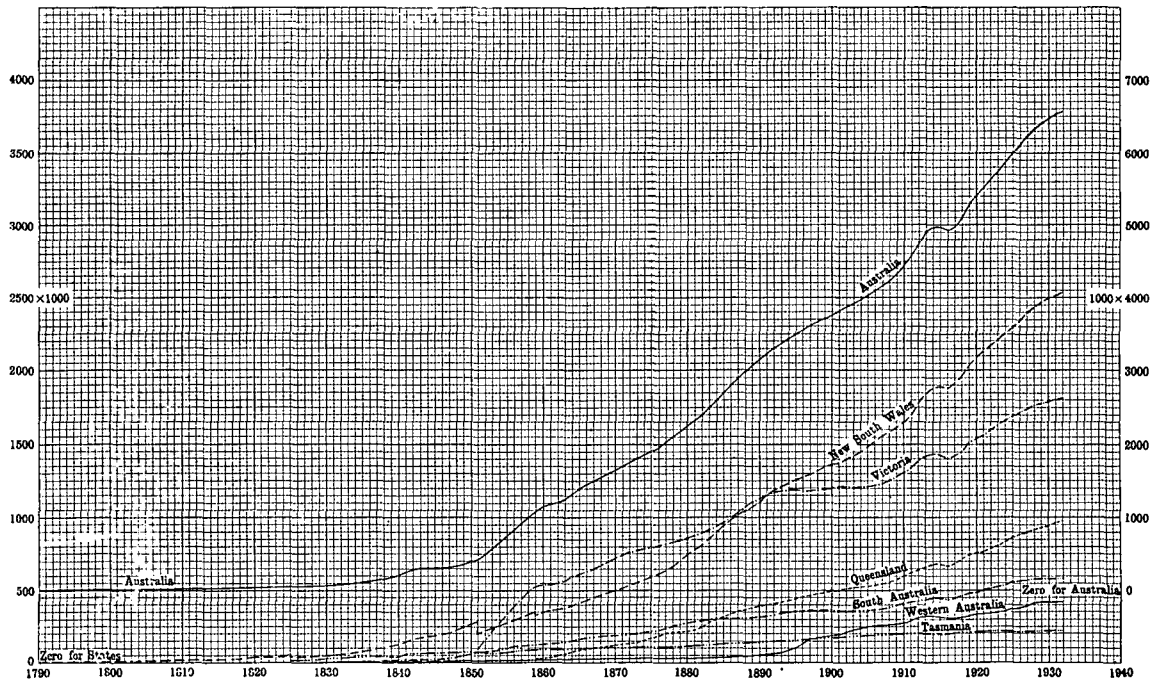
(a) Details as to sex not available for earlier decennial dates.  
New South Wales.

(b) Previously included with South Australia.

(c) Previously included with South Australia.



TOTAL POPULATION, 1788 TO 1932.



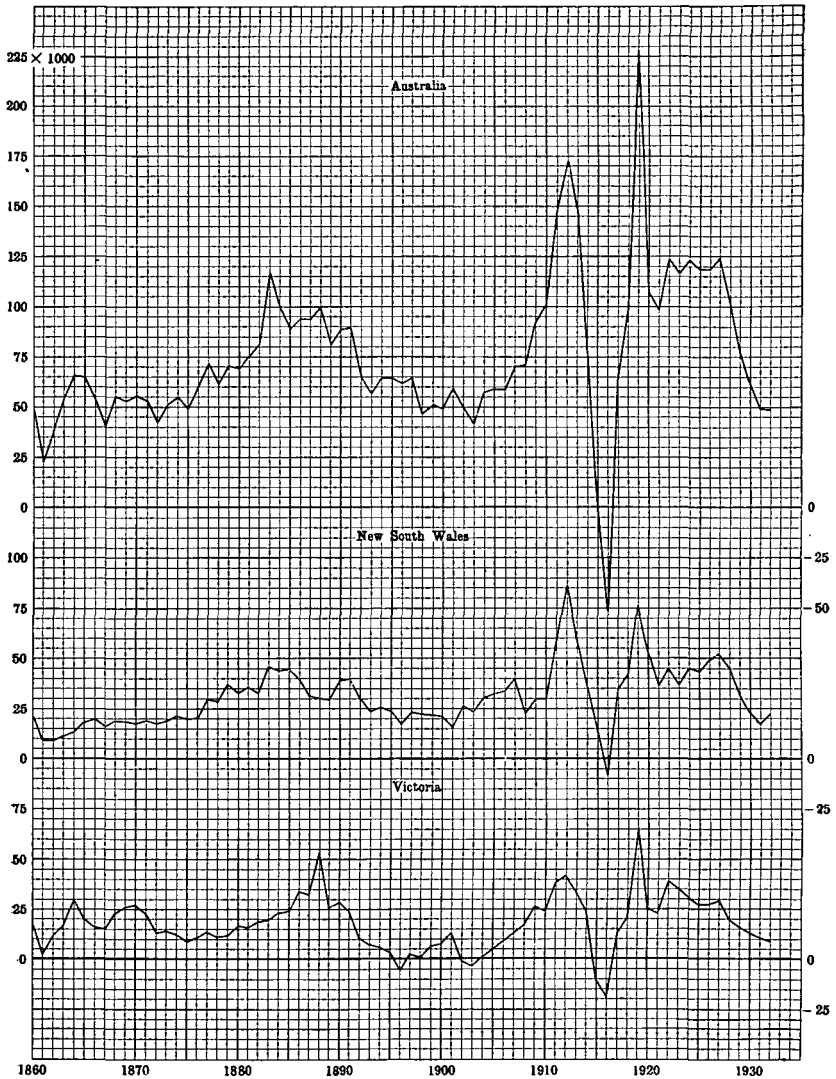
(See page 761.)

EXPLANATION.—The base of each small square represents one year's interval for the States and Australia, and the vertical height for the States 50,000 persons, and for Australia 100,000 persons.

Where the population falls suddenly, the fall denotes the creation of a new colony, e.g., New South Wales in 1825 lost the whole population of Tasmania.

[NOTE].—Necessary amendments for later years based on results of Census of 1933 will be included in next issue of the Official Year Book.

TOTAL INCREASE OF POPULATION—AUSTRALIA, AND NEW SOUTH WALES AND VICTORIA, 1860 TO 1932.

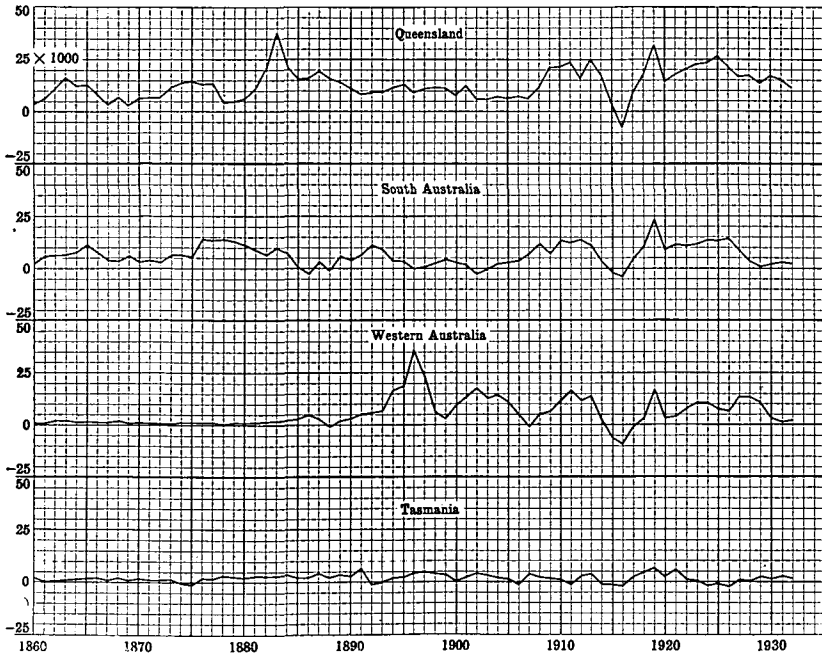


EXPLANATION.—The base for each small square represents an interval of a year for both States and Australia; the vertical height represents 5,000 persons. In the first graph three zero lines are taken (i) for Australia, (ii) for New South Wales, and (iii) for Victoria. In the second graph (on page 759) four zero lines are taken (i) for Queensland, (ii) for South Australia, (iii) for Western Australia, and (iv) for Tasmania.

DECREASES in population are shown by carrying the curve in such cases below the zero line, the distance below the zero line indicating the extent of the decrease.

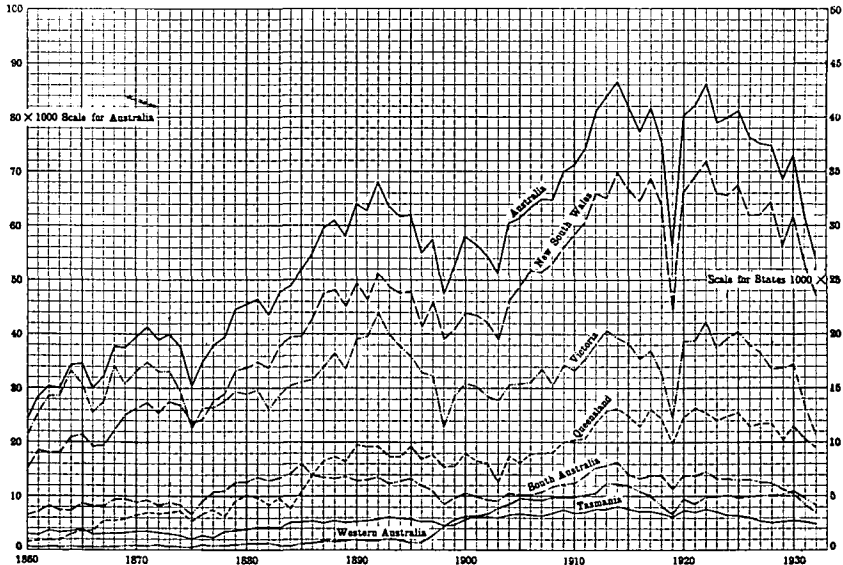
[See also Note at foot of page 757.]

TOTAL INCREASE OF POPULATION—QUEENSLAND, SOUTH AUSTRALIA, WESTERN AUSTRALIA, AND TASMANIA, 1860 TO 1932.



(For explanation see previous page).

NATURAL INCREASE OF POPULATION, 1860 TO 1932.

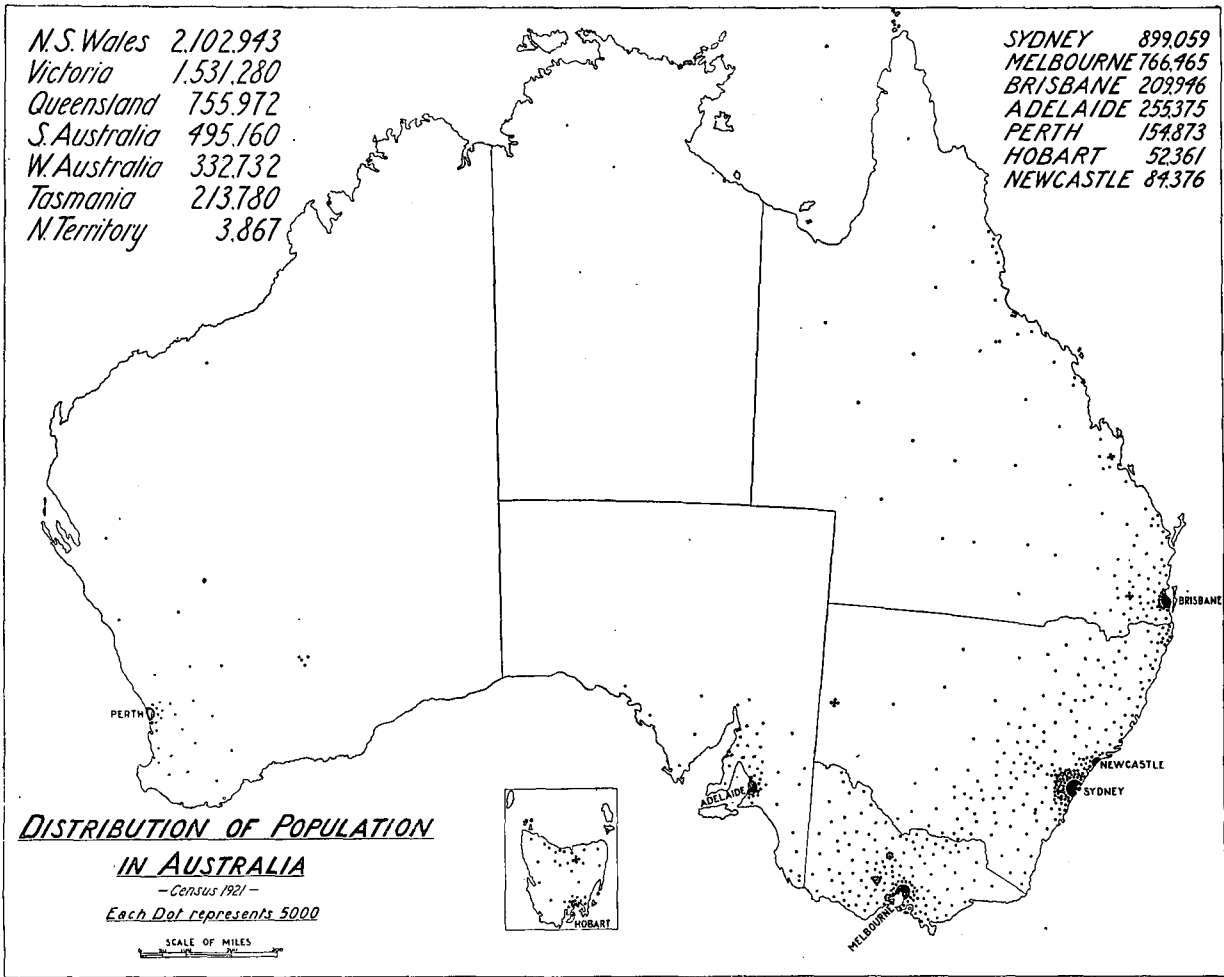
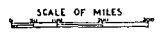


EXPLANATION.—The base of each small square represents one year for both States and Australia, and the vertical height 1,000 persons for the States and 2,000 persons for Australia.  
 The distances upward from the zero line, marked 0 for both Australia and States, denote the excess of births over deaths. The scale on the left relates to Australia, and that on the right to the States.  
 [See also Note at foot of page 757.]

*N.S. Wales* 2,102,943  
*Victoria* 1,531,280  
*Queensland* 755,972  
*S. Australia* 495,160  
*W. Australia* 332,732  
*Tasmania* 213,780  
*N. Territory* 3,867

*SYDNEY* 899,059  
*MELBOURNE* 766,465  
*BRISBANE* 203,946  
*ADELAIDE* 255,375  
*PERTH* 154,873  
*HOBART* 52,361  
*NEWCASTLE* 84,376

***DISTRIBUTION OF POPULATION***  
***IN AUSTRALIA***  
 - Census 1921 -  
 Each Dot represents 5000



GROWTH OF POPULATION—continued.

Year.	Estimated Population at end of Year.								
	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern.	Federal Capital.	
PERSONS.									
1788	859	..	..	..	..	..	..	..	859
1790	2,056	..	..	..	..	..	..	..	2,056
1800	5,217	..	..	..	..	..	..	..	5,217
1810	11,566	..	..	..	..	..	..	..	11,566
1820	33,543	..	..	..	..	..	..	..	33,543
1830	44,588	..	..	..	..	1,172	(b)24,270	..	70,039
1840	127,468	..	..	14,630	2,311	45,999	..	..	190,408
1850	266,900	..	..	63,700	5,886	68,870	..	..	405,356
1860	348,546	(b)538,234	(b)28,056	125,582	15,346	89,821	..	..	1,145,585
1870	497,992	723,925	115,272	184,546	25,135	100,886	..	..	1,647,756
1880	741,142	858,605	211,040	276,393	29,561	114,790	..	..	2,231,531
1890	1,113,275	1,133,278	392,116	318,947	48,502	144,787	..	..	3,151,355
1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	(c)4,857	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	(b)1,972	5,411,297
1921	2,131,711	1,550,735	765,736	501,743	336,552	218,679	3,760	2,078	5,510,994
1922	2,181,557	1,590,290	782,408	511,604	345,553	219,771	3,614	2,591	5,637,388
1923	2,222,937	1,625,479	801,889	522,216	356,873	220,471	3,653	2,676	5,756,140
1924	2,273,101	1,657,184	822,149	534,952	368,346	219,678	3,731	3,074	5,882,215
1925	2,322,439	1,684,093	844,928	547,058	377,555	219,373	3,824	4,034	6,003,304
1926	2,376,800	1,712,037	862,594	560,937	385,269	217,583	4,102	5,039	6,124,361
1927	2,433,801	1,741,800	876,514	569,647	399,940	219,159	4,601	5,870	6,251,422
1928	2,483,299	1,761,813	891,029	572,608	414,674	220,327	4,263	8,247	6,356,250
1929	2,519,887	1,778,344	902,312	572,999	426,700	223,286	4,790	8,447	6,436,765
1930	2,546,570	1,792,689	916,938	574,499	431,685	225,305	4,974	8,719	6,501,379
1931	2,566,548	1,803,661	929,949	577,113	433,771	228,471	4,857	8,921	6,553,291
1932	2,591,980	1,813,482	939,340	579,329	436,412	230,614	4,796	8,564	6,604,517

(a) Details as to sex not available for earlier decennial dates. (b) Previously included with New South Wales. (c) Previously included with South Australia.

A comparison of annual rates of growth of population of Australia and other countries will be found in § 6, par. 4 of this chapter.

The growth of the population of Australia and of each State thereof, is illustrated by the graphs accompanying this chapter, but the graphs for the years 1921 to 1932 represent the populations as estimated prior to the Census of the 30th June, 1933.

3. Mean Population.—The following table shows the mean population for each State and Territory for the years 1921 to 1932 :—

MEAN POPULATION, EXCLUSIVE OF FULL-BLOOD ABORIGINALS.

Year.	States.						Territories.		Australia.
	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern.	Fed. Cap.	
1921 ..	2,108,493	1,537,045	762,078	497,001	334,085	213,404	3,015	2,487	5,458,508
1922 ..	2,155,533	1,570,806	776,827	504,912	341,382	215,383	3,698	2,838	5,571,489
1923 ..	2,201,581	1,607,872	795,141	515,376	350,781	216,423	3,661	3,360	5,694,228
1924 ..	2,244,471	1,641,973	814,135	526,654	363,172	216,280	3,719	3,912	5,814,316
1925 ..	2,295,605	1,671,575	836,920	539,929	372,996	215,559	3,832	4,809	5,941,225
1926 ..	2,347,014	1,696,803	857,170	553,811	380,963	213,808	3,950	6,215	6,059,734
1927 ..	2,404,016	1,727,789	870,762	565,299	392,112	213,059	4,455	7,469	6,184,961
1928 ..	2,460,568	1,752,037	884,958	570,883	407,625	215,770	4,467	8,198	6,304,215
1929 ..	2,503,208	1,770,204	897,734	572,482	420,814	217,460	4,476	8,541	6,395,210
1930 ..	2,532,497	1,786,296	910,510	573,272	429,148	220,941	4,989	8,961	6,466,614
1931 ..	2,556,097	1,799,329	925,039	575,751	432,428	224,819	4,969	8,801	6,527,233
1932 ..	2,579,983	1,808,712	935,809	578,046	435,130	227,092	4,928	8,925	6,578,625

4. Area, Population, Masculinity, and Density—States, 1932.—A previous table showed the estimated number of persons on the 31st December, 1932, in each of the States and Territories. In the following table the proportions of the total area, and of the total population represented by each State or Territory, are given, together with the masculinity and the density of population :—

AREA, POPULATION, MASCULINITY, AND DENSITY.—STATES, 1932.

State or Territory.	Percentage on Total Area.	Per Cent. Estimated Population 31st December, 1932.			Masculinity.(a)	Density.(b)
		Males.	Females.	Persons.		
New South Wales .. ..	10.40	39.19	39.30	39.25	103.02	8.38
Victoria .. ..	2.96	26.84	28.10	27.46	98.70	20.63
Queensland .. ..	22.54	14.68	13.75	14.22	110.31	1.40
South Australia .. ..	12.78	8.65	8.90	8.77	100.41	1.52
Western Australia .. ..	32.81	6.94	6.26	6.61	114.66	0.45
Tasmania .. ..	0.88	3.46	3.53	3.49	110.13	8.80
Northern Territory .. ..	17.60	0.10	0.04	0.07	231.90	0.01
Federal Capital Territory .. ..	0.03	0.14	0.12	0.13	113.89	9.11
Australia .. ..	100.00	100.00	100.00	100.00	103.32	2.22

(a) Number of males to each 100 females.

(b) Number of persons per square mile.

Additional information regarding masculinity and density of population appears in later sections of this chapter.

5. Urban and Rural Distribution.—At the Census of 30th June, 1933, information was obtained regarding the distribution of the population amongst urban and rural areas. The metropolitan divisions include the capital city and the adjoining urban areas; the urban provincial districts cover those cities and towns which are not adjacent to the metropolitan areas, and which are incorporated for local government purposes; while those persons classed as migratory were mostly on board ships in Australian ports.

The results obtained at the Census are shown in the following table, viz. :—

URBAN AND RURAL POPULATION.—AUSTRALIA, CENSUS 30th JUNE, 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Division.	Males.	Females.	Total.	Percentage on Total Population of State.		Percentage of Increase since the 1921 Census.
				Census 1933.	Census 1921.	

NEW SOUTH WALES.

Urban—						
Metropolitan	591,234	644,133	1,235,367	47.50	42.80	37.41
Provincial ..	283,480	282,001	565,481	21.74	25.00	7.71
Rural ..	439,572	355,647	795,219	30.57	31.64	19.66
Migratory ..	4,442	595	5,037	0.19	0.56	—57.00
Total ..	1,318,728	1,282,376	2,601,104	100.00	100.00	23.84

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	Males.	Females.	Total.	Percentage on Total Population of State.		Percentage of Increase since the 1921 Census.
				Census 1933.	Census 1921.	

VICTORIA.

Urban—						
Metropolitan	464,886	527,162	992,048	54.50	50.05	29.43
Provincial ..	94,802	103,391	198,193	10.89	12.24	5.71
Rural ..	342,265	286,276	628,541	34.52	37.33	9.97
Migratory ..	1,446	132	1,578	0.09	0.38	—72.55
<b>Total ..</b>	<b>903,399</b>	<b>916,961</b>	<b>1,820,360</b>	<b>100.00</b>	<b>100.00</b>	<b>18.88</b>

QUEENSLAND.

Urban—						
Metropolitan	143,545	156,237	299,782	31.63	27.77	42.79
Provincial ..	97,860	101,305	199,165	21.01	24.30	8.41
Rural ..	252,510	192,281	444,791	46.93	47.49	23.89
Migratory ..	3,479	572	4,051	0.43	0.44	23.06
<b>Total ..</b>	<b>497,394</b>	<b>450,395</b>	<b>947,789</b>	<b>100.00</b>	<b>100.00</b>	<b>25.37</b>

SOUTH AUSTRALIA.

Urban—						
Metropolitan	147,939	164,690	312,629	53.81	51.57	22.42
Provincial ..	25,291	26,162	51,453	8.86	8.41	23.58
Rural ..	115,913	98,880	214,793	36.97	39.39	10.12
Migratory ..	1,827	285	2,112	0.36	0.63	—31.74
<b>Total ..</b>	<b>290,970</b>	<b>290,017</b>	<b>580,987</b>	<b>100.00</b>	<b>100.00</b>	<b>17.33</b>

WESTERN AUSTRALIA.

Urban—						
Metropolitan	99,299	108,165	207,464	47.26	46.55	33.96
Provincial ..	23,069	21,735	44,804	10.21	12.79	5.25
Rural ..	108,773	74,712	183,485	41.80	39.10	41.04
Migratory ..	2,859	336	3,195	0.73	1.56	—38.44
<b>Total ..</b>	<b>234,000</b>	<b>204,948</b>	<b>438,948</b>	<b>100.00</b>	<b>100.00</b>	<b>31.92</b>

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	Males.	Females.	Total.	Percentage on Total Population of State.		Percentage of Increase since the 1921 Census.
				Census 1933.	Census 1921.	
<b>TASMANIA.</b>						
Urban—						
Metropolitan	28,356	32,052	60,408	26.54	24.49	15.37
Provincial ..	26,984	29,801	56,785	24.95	26.03	2.05
Rural ..	59,164	50,599	109,763	48.23	49.17	4.41
Migratory ..	637	12	649	0.28	0.31	-0.46
Total ..	115,141	112,464	227,605	100.00	100.00	6.47
<b>FEDERAL CAPITAL TERRITORY.</b>						
Urban—						
Provincial ..	3,841	3,484	7,325	81.87	..	..
Rural ..	966	656	1,622	18.13	99.65	..
Migratory ..	...	..	..	..	0.35	..
Total ..	4,807	4,140	8,947	100.00	100.00	247.86
<b>NORTHERN TERRITORY.</b>						
Urban—						
Provincial ..	909	657	1,566	32.22	36.18	11.94
Rural ..	2,392	827	3,219	66.24	62.14	33.96
Migratory ..	75	..	75	1.54	1.68	15.38
Total ..	3,376	1,484	4,860	100.00	100.00	25.68
<b>AUSTRALIA.</b>						
Urban—						
Metropolitan	1,475,259	1,632,439	3,107,698	46.87	43.01	32.92
Provincial ..	556,236	568,536	1,124,772	16.96	19.09	8.31
Rural ..	1,321,555	1,059,878	2,381,433	35.92	37.35	17.35
Migratory ..	14,765	1,932	16,697	0.25	0.55	-43.90
Total ..	3,367,815	3,262,785	6,630,600	100.00	100.00	21.98

The metropolitan divisions contained 46.87 per cent. of the total population of the Commonwealth as compared with 43.01 per cent. at the Census of 1921. Victoria has the largest percentage of population residing in the metropolitan area (54.50) but is closely followed by South Australia (53.81) in this respect. During the intercensal period, however, the highest rates of increase in metropolitan population were experienced in Queensland and New South Wales.



The percentage of population in the rural divisions of the Commonwealth has declined from 37.35 per cent. in the year 1921 to 35.92 per cent. on the 30th June, 1933. Tasmania, with 48.23 per cent., has the largest proportion of population residing in the rural sections of the State and Queensland is next with 46.93 per cent. Since the Census of 1921, however, the greatest percentage of increase in rural population has occurred in Western Australia (41 per cent.), which was more than double the average rate of increase for rural areas in the Commonwealth.

A feature of the metropolitan population is its high femininity. In 1921, 52.3 per cent. of the metropolitan population was composed of females, and in 1933 the proportion of females had risen, slightly, to 52.5 per cent. the proportion being highest in Victoria and Tasmania at 53.1 per cent.

6. Metropolitan Population—Australia and Other Countries.—The abnormal concentration of population in the capitals of the States of Australia, as compared with other countries, may be readily seen from the following table. It may be mentioned, however, that, in many of the other countries, the capital is not the most populous of the great cities, whereas, in Australia, the capital is invariably, except for the Federal Capital, Canberra, the most populous city, and in some States is the only one of important magnitude.

## METROPOLITAN POPULATION.—AUSTRALIA AND OTHER COUNTRIES.

State or Country.	Metropolis.	Year.	Population.	Percentage on Total of State or Country.
				%
Australia .. ..	Canberra .. ..	} 30th June, 1933	7,325	0.11
New South Wales .. ..	Sydney .. ..		1,235,367	42.80
Victoria .. ..	Melbourne .. ..		992,048	50.05
Queensland .. ..	Brisbane .. ..		299,782	27.77
South Australia .. ..	Adelaide .. ..		312,629	51.57
Western Australia .. ..	Perth .. ..		207,464	46.55
Tasmania .. ..	Hobart .. ..		60,408	24.49
Australia .. ..	(7 Cities) .. ..		3,115,023	46.98
New Zealand .. ..	Wellington .. ..		1.4.1932	144,800
New York State .. ..	New York (a) .. ..	1930	6,930,446	55.06
Northern Ireland .. ..	Belfast .. ..	1929	415,000	33.20
Austria .. ..	Vienna .. ..	1930	1,865,780	24.16
Denmark .. ..	Copenhagen .. ..	1930	771,168	21.72
Irish Free State .. ..	Dublin .. ..	1932	415,900	13.99
England .. ..	London (b) .. ..	1932	4,357,800	10.84
Belgium .. ..	Brussels .. ..	1931	834,522	10.23
Netherlands .. ..	Amsterdam .. ..	1931	766,263	9.50
Scotland .. ..	Edinburgh .. ..	1932	445,300	9.12
Norway .. ..	Oslo .. ..	1930	249,688	8.89
Sweden .. ..	Stockholm .. ..	1931	514,333	8.35
France .. ..	Paris .. ..	1931	2,891,020	6.91
Germany .. ..	Berlin .. ..	1931	4,126,000	6.37
Spain .. ..	Madrid .. ..	1931	896,511	3.79
Japan .. ..	Tokio .. ..	1930	2,070,529	3.21
Italy .. ..	Rome .. ..	1931	1,008,033	2.45
Canada .. ..	Ottawa .. ..	1931	126,872	1.22
Russia .. ..	Moscow .. ..	1930	2,781,300	1.73
United States .. ..	Washington .. ..	1930	486,869	0.40

(a) Albany, the capital of New York State, had, in 1930, a population of 127,412, a percentage of 1.01 on total of State. (b) Population of Greater London in 1932 was 8,302,329.

7. *Principal Urban Centres.*—The following table gives particulars of the population of the principal urban incorporated areas in each State at the 30th June, 1933 :—

POPULATION OF PRINCIPAL URBAN INCORPORATED AREAS.—AUSTRALIA,  
30th JUNE, 1933.

Town.	Population.	Town.	Population.
<b>New South Wales—</b>		<b>Victoria—continued.</b>	
Sydney and Suburbs .. .. .	1,235,367	Horsham .. .. .	5,272
Newcastle and Suburbs .. .. .	104,491	Castlemaine and Suburbs .. .. .	5,221
Broken Hill .. .. .	26,921	<b>Queensland—</b>	
Goulburn .. .. .	14,851	Brisbane and Suburbs .. .. .	299,782
Cessnock .. .. .	14,387	Rockhampton .. .. .	29,373
Lithgow .. .. .	13,444	Toowoomba .. .. .	26,430
Lismore .. .. .	11,763	Townsville .. .. .	25,872
Wagga Wagga .. .. .	11,631	Ipswich .. .. .	22,499
Wollongong .. .. .	11,402	Cairns .. .. .	12,004
Albury .. .. .	10,542	Bundaberg .. .. .	11,466
Bathurst .. .. .	10,415	Maryborough .. .. .	11,414
Tamworth .. .. .	9,918	Mackay .. .. .	10,660
Orange .. .. .	9,632	Gympie .. .. .	7,749
Fairfield .. .. .	8,705	Charters Towers .. .. .	6,982
Dubbo .. .. .	8,344	Warwick .. .. .	6,664
West Maitland .. .. .	8,190	<b>South Australia—</b>	
Armidale .. .. .	6,794	Adelaide and Suburbs .. .. .	312,629
Katoomba .. .. .	6,430	Port Pirie .. .. .	11,680
Grafton .. .. .	6,412	Mount Gambier .. .. .	5,539
Liverpool .. .. .	6,315	Murray Bridge .. .. .	3,651
Cabramatta and Canley Vale .. .. .	6,108	Port Augusta .. .. .	3,270
Parke .. .. .	5,848	Peterborough .. .. .	3,057
Forbes .. .. .	5,356	Port Lincoln .. .. .	3,006
Glen Innes .. .. .	5,356	<b>Western Australia—</b>	
Inverell .. .. .	5,304	Perth and Suburbs .. .. .	207,464
Casino .. .. .	5,293	Kalgoorlie .. .. .	9,091
Cowra .. .. .	5,056	Boulder .. .. .	5,809
<b>Victoria—</b>		Bunbury .. .. .	5,130
Melbourne and Suburbs .. .. .	992,048	Geraldton .. .. .	4,985
Geelong and Suburbs .. .. .	39,225	Northam .. .. .	4,816
Ballarat and Suburbs .. .. .	37,409	Albany .. .. .	4,076
Bendigo and Suburbs .. .. .	29,131	Collie .. .. .	3,785
Warrnambool .. .. .	8,909	<b>Tasmania—</b>	
Mildura .. .. .	6,614	Hobart and Suburbs .. .. .	60,408
Hamilton .. .. .	5,786	Launceston and Suburbs .. .. .	27,532
Shepparton .. .. .	5,699	Devonport .. .. .	5,153
Maryborough .. .. .	5,631	Queenstown .. .. .	3,808
Wonthaggi .. .. .	5,593	Burnie .. .. .	3,390
		Ulverstone .. .. .	2,701

### § 6. Elements of Increase.

1. *Natural Increase.*—(i) *General.* The two factors which contribute to the growth of a population are the "natural increase" by excess of births over deaths, and the "net immigration," i.e., the excess of arrivals over departures. In earlier issues of the Official Year Book particulars of the natural increase from 1861 were given for each sex and State (See No. 22, page 899). In the following table the last twelve years only are given for each sex, but from 1901 for persons. The natural increase for Australia from 1861 to 1932 inclusive was 4,144,273, consisting of 1,924,532 males and 2,219,741 females, and represented 75.92 per cent. of the total increase in population. During the present century, the rate of natural increase grew until the period 1911-15, since when it has declined steadily. This increase occurred in the face of a falling birth rate and was largely due to the smaller mortality and the greater longevity of the population. A graph showing the natural increase to the population of each State and of Australia, from year to year since 1861, accompanies this chapter.

## POPULATION.—NATURAL INCREASE. (a)

Period.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
<b>MALES.</b>									
1921 ..	16,515	9,626	6,241	3,467	1,779	1,778	-31	12	39,387
1922 ..	17,204	10,551	5,891	3,613	2,169	1,911	-14	12	41,337
1923 ..	15,744	9,430	5,464	3,249	2,107	1,748	5	-4	37,743
1924 ..	15,463	9,637	5,610	3,297	2,176	1,523	-13	4	37,697
1925 ..	15,934	10,010	5,735	3,095	2,053	1,583	-15	13	38,408
1926 ..	14,547	9,438	5,110	3,230	2,175	1,544	-17	8	36,035
1927 ..	14,825	9,086	5,351	3,092	2,251	1,441	-37	13	36,022
1928 ..	15,505	8,421	5,499	3,045	2,264	1,263	-27	37	36,007
1929 ..	13,046	8,263	4,430	2,725	2,076	1,334	-25	56	31,995
1930 ..	14,507	8,548	5,255	2,491	2,479	1,419	-25	61	34,735
1931 ..	12,654	6,442	4,650	1,978	2,052	1,410	-25	64	29,225
1932 ..	11,010	5,078	4,272	1,721	1,817	1,179	-22	60	25,115
<b>FEMALES.</b>									
1921 ..	18,095	9,800	6,946	3,525	2,548	1,780	30	11	42,735
1922 ..	18,800	10,582	6,944	3,780	2,795	1,909	24	14	44,848
1923 ..	17,277	9,228	6,625	3,482	2,817	1,772	29	13	41,243
1924 ..	17,407	10,000	6,771	3,425	2,862	1,737	26	22	42,250
1925 ..	17,859	10,075	7,003	3,383	2,817	1,639	18	22	42,816
1926 ..	16,410	9,589	6,440	3,376	2,776	1,532	26	26	40,175
1927 ..	16,265	9,215	6,404	3,272	2,838	1,359	29	12	39,394
1928 ..	16,629	8,369	6,308	3,216	2,800	1,296	39	36	38,693
1929 ..	15,043	8,624	5,747	2,901	3,045	1,287	13	58	36,718
1930 ..	16,386	8,620	6,229	2,642	2,947	1,419	19	71	38,333
1931 ..	13,797	6,857	5,658	2,213	2,816	1,295	27	61	32,724
1932 ..	12,542	5,581	5,282	1,843	2,433	1,290	28	62	29,061
<b>PERSONS.</b>									
1901-05 ..	110,342	74,163	39,538	24,850	19,751	15,982	-195	(b)	284,431
1906-10 ..	135,424	81,577	47,463	29,254	24,116	17,225	-231	(b)	334,828
1911-15 ..	164,144	96,418	60,960	37,991	28,992	18,990	-139	156	407,512
1916-20 ..	153,829	84,274	59,167	33,238	22,972	17,494	10	147	371,131
1921-25 ..	170,298	98,939	63,230	34,316	24,123	17,380	59	119	408,464
1926-30 ..	153,163	88,173	56,773	29,990	25,651	13,894	-5	378	368,017
1921 ..	34,610	19,426	13,187	6,992	4,327	3,558	-1	23	82,122
1922 ..	36,004	21,133	12,835	7,393	4,964	3,820	10	26	86,185
1923 ..	33,021	18,658	12,089	6,731	4,924	3,520	34	9	78,986
1924 ..	32,870	19,637	12,381	6,722	5,038	3,260	13	26	79,947
1925 ..	33,793	20,085	12,738	6,478	4,870	3,222	3	35	81,224
1926 ..	30,957	19,027	11,550	6,606	4,951	3,076	9	34	76,210
1927 ..	31,090	18,301	11,755	6,364	5,089	2,800	-8	25	75,416
1928 ..	32,134	16,790	11,807	6,261	5,064	2,559	12	73	74,700
1929 ..	28,089	16,887	10,177	5,626	5,121	2,621	-12	114	68,623
1930 ..	30,893	17,168	11,484	5,133	5,426	2,838	-6	132	73,068
1931 ..	26,451	13,299	10,308	4,191	4,868	2,705	2	125	61,949
1932 ..	23,552	10,659	9,554	3,564	4,250	2,409	6	122	54,176

(a) Excess of births over deaths.

(b) Part of New South Wales prior to 1911.

NOTE.—Minus sign (—) denotes excess of deaths over births.

## POPULATION.—NATURAL INCREASE (a)—continued.

Period.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
RATE OF NATURAL INCREASE (b)—PERSONS.									
1901-05..	15.59	12.31	15.34	13.92	18.07	17.85	- 8.8	(c)	14.60
1906-10..	17.25	13.11	16.99	15.44	18.52	18.37	-12.6	(c)	15.93
1911-15..	18.27	13.91	18.61	17.55	18.76	19.63	- 7.6	13.71	17.05
1916-20..	15.69	11.65	16.74	14.51	14.56	17.46	0.43	12.23	14.57
1921-25..	15.47	12.32	15.87	13.28	13.69	16.14	3.13	6.84	14.34
1926-30..	12.51	10.10	12.84	10.58	12.63	12.85	0.22	9.60	11.72
1921 ..	16.41	12.64	17.30	14.07	12.95	16.67	-0.40	5.87	15.04
1922 ..	16.70	13.45	16.52	14.64	14.54	17.74	3.52	7.03	15.46
1923 ..	15.00	11.60	15.20	13.06	14.04	16.26	10.12	2.44	13.87
1924 ..	14.64	11.96	15.20	12.76	13.87	15.07	3.32	6.99	13.75
1925 ..	14.72	12.02	15.22	12.00	13.06	14.95	0.62	9.13	13.67
1926 ..	13.19	11.21	13.47	11.93	13.00	14.39	1.45	8.60	12.58
1927 ..	12.93	10.59	13.50	11.26	12.98	13.14	1.07	5.61	12.19
1928 ..	13.06	9.58	13.34	10.97	12.42	11.88	1.46	16.34	11.85
1929 ..	11.39	9.54	11.34	9.83	12.17	12.04	-1.40	25.46	10.73
1930 ..	12.20	9.61	12.61	8.95	12.64	12.85	-0.67	26.46	11.30
1931 ..	10.35	7.39	11.14	7.28	11.26	12.03	0.23	25.16	9.49
1932 ..	9.13	5.89	10.21	6.17	9.77	10.87	0.67	24.75	8.24

(a) Excess of births over deaths. (b) Excess of births over deaths per 1,000 mean annual population. (c) Part of New South Wales prior to 1911.

NOTE.—Minus sign (-) denotes excess of deaths over births.

(ii) *Comparison with other Countries.* Notwithstanding its comparatively low birth-rate, Australia has a high rate of natural increase, owing to the fact that its death-rate is very low. The following table gives a comparison between the average rates per annum of natural increase for some of the principal countries of the world for which such information is available, and those for the several States of Australia and the Dominion of New Zealand. Rates for the period 1909-1913 have been added for purposes of comparison:—

## NATURAL INCREASE PER ANNUM PER 1,000 OF MEAN POPULATION.

(VARIOUS COUNTRIES.)

Country.	1909-13.	1928-32.	Country.	1909-13.	1928-32.
Australasia—			Europe—continued.		
Tasmania ..	18.8	12.2	Scotland ..	10.7	5.6
Western Australia	18.1	11.9	Irish Free State ..	6.3	5.2
New South Wales	18.0	11.4	Switzerland ..	9.3	5.0
Queensland ..	17.9	11.4	Belgium ..	7.8	(a) 4.7
Australia ..	16.7	10.4	England and Wales	10.7	3.9
New Zealand ..	17.1	10.1	Sweden ..	10.4	(a) 3.3
South Australia ..	16.8	8.5	France ..	0.8	1.3
Victoria ..	13.6	8.4	Asia—		
Europe—			Japan ..	13.1	(a) 13.7
Soviet Republics ..	15.8	(b) 22.3	Africa—		
Netherlands ..	15.1	13.1	Union of South		
Spain ..	9.3	11.0	Africa (whites only)	(c)	15.9
Italy ..	12.8	10.3	America—		
Denmark ..	13.9	(a) 7.6	Canada ..	(c)	12.8
Norway ..	12.4	(a) 6.3	United States ..	(c)	7.1
Germany ..	12.8	(a) 5.9			
Northern Ireland ..	6.3	6.2			

(a) 1928-31.

(b) 1926-27.

(c) Not available.

Graphs of natural increase for each of the States, as well as for Australia, accompany this chapter.

2. *Net Immigration.*\*—The other factor of increase in the population, viz., the excess of arrivals over departures, known as "net immigration" is, from its nature, much more subject to variations than is the factor of "natural increase." These variations are due to numerous causes, some of which are referred to in Official Year Book No. 22, pp. 906-7.

Information is given below for the last twelve years in the case of males and females, and for quinquennial periods from 1901 to 1930 in the case of all persons. The figures have been adjusted for the years 1921 to 1932 in accordance with the results of the Census of the 30th June, 1933, and supersede all similar figures previously published for those years.

## POPULATION.—INCREASE BY NET IMMIGRATION.

Period.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
<b>MALES.</b>									
1921 ..	2,015	1,888	473	2,403	297	1,320	115	64	8,345
1922 ..	8,680	13,673	2,815	398	3,338	2,000	99	317	27,122
1923 ..	6,399	8,948	4,853	3,251	4,557	1,244	46	18	26,792
1924 ..	10,907	8,411	3,990	3,637	4,374	2,042	91	247	29,615
1925 ..	7,758	4,901	6,763	4,556	2,829	1,642	93	589	25,847
1926 ..	13,057	4,793	3,544	5,518	2,073	2,818	303	596	27,066
1927 ..	14,916	6,610	2,015	1,200	6,808	321	460	407	32,095
1928 ..	9,010	354	2,522	2,708	6,963	522	311	1,311	16,619
1929 ..	3,965	1,256	1,212	3,765	4,219	164	290	10	4,839
1930 ..	3,306	2,583	2,373	2,468	964	154	128	65	7,039
1931 ..	4,163	2,424	1,738	1,199	2,516	262	112	95	8,319
1932 ..	1,115	836	325	864	1,161	286	88	391	2,186
<b>FEMALES.</b>									
1921 ..	3,364	1,512	1,452	1,342	605	1,049	113	19	9,230
1922 ..	5,162	4,749	1,022	2,070	609	728	57	170	13,087
1923 ..	1,960	7,583	2,539	630	1,839	1,630	41	94	12,974
1924 ..	6,387	3,657	3,889	2,377	2,061	1,957	26	125	16,513
1925 ..	7,787	1,923	3,278	1,072	1,510	1,885	3	336	14,018
1926 ..	10,347	4,124	2,572	1,755	690	2,048	34	375	17,781
1927 ..	10,995	4,942	150	1,146	2,774	903	47	399	19,550
1928 ..	8,354	2,779	186	592	2,707	869	39	983	13,509
1929 ..	4,534	900	106	1,470	2,686	174	249	86	7,053
1930 ..	904	240	769	1,165	523	665	62	205	1,415
1931 ..	2,310	97	965	378	266	199	7	18	1,718
1932 ..	765	2	488	484	448	40	21	88	764

NOTE.—Minus sign (—) indicates the excess of departures over arrivals.

\* The subject of immigration is dealt with at some length later in this chapter.

POPULATION.—INCREASE BY NET IMMIGRATION—*continued.*

Period.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
PERSONS.									
1901-05..	17,237	- 59,955	- 1,903	- 19,479	50,420	- 2,497	- 616	(a)	- 16,793
1906-10..	20,547	9,410	20,071	14,993	2,578	- 9,807	- 514	(a)	57,278
1911-15..	87,095	26,619	25,091	1,132	10,839	- 15,257	1,315	28	136,862
1916-20..	44,444	19,190	6,390	11,783	- 8,312	- 2,278	- 504	- 4	70,709
1921-25..	60,419	57,245	31,074	21,736	22,109	- 10,759	- 224	1,943	183,543
1926-30..	70,968	20,423	15,237	- 2,549	28,479	- 7,962	1,155	4,307	130,058
1921 ..	5,379	3,400	1,925	3,745	902	2,369	- 228	83	17,575
1922 ..	13,842	18,422	3,837	2,468	4,037	- 2,728	- 156	487	40,209
1923 ..	8,359	16,531	7,392	3,881	6,396	- 2,874	5	76	39,766
1924 ..	17,294	12,068	7,879	6,014	6,435	- 3,999	65	372	46,128
1925 ..	15,545	6,824	10,041	5,628	4,339	- 3,527	90	925	39,865
1926 ..	23,404	8,917	6,116	7,273	2,763	- 4,866	269	971	44,847
1927 ..	25,911	11,552	2,165	2,346	9,582	- 1,224	507	806	51,645
1928 ..	17,364	3,133	2,708	- 3,300	9,670	- 1,391	- 350	2,294	30,128
1929 ..	8,499	- 356	1,106	- 5,235	6,905	338	539	96	11,892
1930 ..	- 4,210	- 2,823	3,142	- 3,633	- 441	- 819	190	140	- 8,454
1931 ..	- 6,473	- 2,327	2,703	- 1,577	- 2,782	461	- 119	77	- 10,037
1932 ..	1,880	- 838	- 163	- 1,348	- 1,609	- 326	- 67	- 479	- 2,950

NOTE.—Minus sign (—) indicates the excess of departures over arrivals.

(a) Part of New South Wales prior to 1911.

From 1861 to 1932 the increment to the population arising from net immigration amounted to 1,314,659, or 24.08 per cent. of the total increase in population. During the 32 years of the present century the total increase to the population was made up of 2,290,508 or 80.68 per cent. by natural increase, and 548,670 or 19.32 per cent. by net immigration.

3. Total Increase.—The total increase of the population is obtained by the combination of the natural increase with the net immigration.

The total increase in each decade from 1861 to 1920 was given in Year Book No. 22 p. 902. The results for the last twelve years only are shown below for males and females, but quinquennial figures from 1901 to 1930 are added for persons. The figures have been adjusted for the years 1921 to 1932 in accordance with the results of the Census of the 30th June, 1933, and supersede all similar figures previously published for those years. A graph showing the increase in the population in each State and Territory, and of Australia from 1860, accompanies this chapter.

## POPULATION.—TOTAL INCREASE.

Period.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
<b>MALES.</b>									
1921 ..	18,530	11,514	6,714	5,870	2,076	3,098	- 146	76	47,732
1922 ..	25,884	24,224	8,706	4,011	5,507	- 89	- 113	329	68,459
1923 ..	22,143	18,378	10,317	6,500	6,664	504	51	- 22	64,535
1924 ..	26,370	18,048	9,600	6,934	6,550	- 519	78	251	67,312
1925 ..	23,692	14,911	12,498	7,651	4,882	- 59	78	602	64,255
1926 ..	27,604	14,231	8,654	8,748	4,248	- 1,274	286	604	63,101
1927 ..	29,741	15,696	7,366	4,292	9,059	1,120	423	420	68,117
1928 ..	24,515	8,775	8,021	337	9,227	741	- 338	1,348	52,626
1929 ..	17,011	7,007	5,642	- 1,040	6,295	1,498	265	66	36,744
1930 ..	11,201	5,965	7,628	23	1,515	1,265	103	- 4	27,696
1931 ..	8,491	4,018	6,388	779	464	1,672	- 137	159	20,906
1932 ..	12,125	4,242	4,597	857	656	893	- 110	- 331	22,929

<b>FEMALES.</b>									
1921 ..	21,459	11,312	8,398	4,867	3,153	2,829	- 83	30	51,965
1922 ..	23,962	15,331	7,966	5,850	3,494	1,181	- 33	184	57,935
1923 ..	19,237	16,811	9,164	4,112	4,656	142	- 12	107	54,217
1924 ..	23,794	13,657	10,660	5,802	4,923	- 220	..	147	58,763
1925 ..	25,646	11,998	10,281	4,455	4,327	- 246	15	358	56,834
1926 ..	26,757	13,713	9,012	5,131	3,466	- 516	- 8	401	57,956
1927 ..	27,260	14,157	6,554	4,418	5,612	456	76	411	58,944
1928 ..	24,983	11,148	6,494	2,624	5,507	427	..	1,019	52,202
1929 ..	19,577	9,524	5,641	1,431	5,731	1,461	262	144	43,771
1930 ..	15,482	8,386	6,998	1,477	3,470	754	81	276	36,918
1931 ..	11,487	6,954	6,623	1,835	2,550	1,494	20	43	31,066
1932 ..	13,307	5,579	4,794	1,359	1,985	1,250	49	- 26	28,297

<b>PERSONS.</b>									
1901-05..	127,579	14,208	37,635	5,371	70,171	13,485	- 811	(a)	267,638
1906-10..	155,971	90,987	67,534	44,247	26,694	7,418	- 745	(a)	392,106
1911-15..	251,239	123,037	86,051	39,123	39,831	3,733	1,176	184	544,374
1916-20..	198,273	103,464	65,557	45,021	14,660	15,216	- 494	143	441,840
1921-25..	230,717	156,184	94,304	56,052	46,232	6,621	- 165	2,062	592,007
1926-30..	224,131	108,596	72,010	27,441	54,130	5,932	1,150	4,685	498,075
1921 ..	39,989	22,826	15,112	10,737	5,229	5,927	- 229	106	99,697
1922 ..	49,846	39,555	16,672	9,861	9,001	1,092	- 146	513	126,394
1923 ..	41,380	35,189	19,481	10,612	11,320	646	39	85	118,752
1924 ..	50,164	31,705	20,260	12,736	11,473	- 739	78	398	126,075
1925 ..	49,338	26,909	22,779	12,106	9,209	- 305	93	960	121,089
1926 ..	54,361	27,944	17,666	13,879	7,714	- 1,790	278	1,005	121,057
1927 ..	57,001	29,853	13,920	8,710	14,671	1,576	499	831	127,061
1928 ..	49,498	19,923	14,515	2,961	14,734	1,168	- 338	2,367	104,828
1929 ..	36,588	16,531	11,283	391	12,026	2,959	527	210	80,515
1930 ..	26,683	14,345	14,626	1,500	4,985	2,019	184	272	64,614
1931 ..	19,978	10,972	13,011	2,614	2,086	3,166	- 117	202	51,912
1932 ..	25,432	9,821	9,391	2,216	2,641	2,143	- 61	- 357	51,226

(a) Part of New South Wales prior to 1911.

NOTE.—Minus sign (-) denotes decrease.

4. Rates of Increase.—(i) For Various Countries. The table hereunder gives approximate rates of increase in population for Australia, and its component States, and for other countries. The Australian rates for the periods 1921–26 and 1926–31, have been adjusted in accordance with the results of the Census of 30th June, 1933.

POPULATION.—RATES OF INCREASE (VARIOUS COUNTRIES).

Countries.	Annual Rate of Increase in Population during period—							
	1891 to 1896.	1896 to 1901.	1901 to 1906.	1906 to 1911.	1911 to 1916.	1916 to 1921.	1921 to 1926. (d)	1926 to 1931. (d)
<b>AUSTRALASIA—</b>	%	%	%	%	%	%	%	%
Australia ..	1.86	1.49	1.38	2.03	1.95	1.99	2.09	1.60
New South Wales <sup>a</sup>	1.99	1.57	1.99	2.03	2.61	2.17	2.11	1.86
Victoria ..	0.37	0.52	0.18	2.17	1.38	1.68	1.96	1.26
Queensland ..	2.49	2.25	1.35	2.76	2.20	2.21	2.39	1.65
South Australia <sup>b</sup>	1.63	0.77	0.27	2.46	1.52	2.34	2.18	0.98
Western Australia	20.81	7.25	6.22	2.43	1.76	1.27	2.64	2.72
Tasmania ..	1.06	1.83	1.33	0.65	0.58	1.84	0.62	0.53
New Zealand ..	2.41	1.98	2.86	2.56	1.61	2.32	1.95	1.25
<b>EUROPE—</b>								
England and Wales	1.15	1.15	1.04	1.04	-0.95	1.89	0.62	0.47
Scotland ..	1.06	1.06	0.55	0.56	0.31	0.24	0.09	-0.21
Ireland ..	-0.60	-0.43	-0.22	-0.06	-0.21	0.58	-0.60	-0.12
Belgium ..	1.15	0.92	1.26	0.69	0.54	-0.56	1.03	(c)0.68
Denmark ..	0.99	1.32	1.12	1.26	1.20	2.13	1.01	(c)0.65
France ..	0.09	0.24	0.15	0.06	-0.72	0.55	0.76	0.53
Germany ..	1.17	1.51	1.46	1.36	0.71	-1.62	0.73	(c)0.56
Italy ..	0.68	0.61	0.52	0.80	1.16	0.22	0.91	(c)0.88
Netherlands ..	1.28	1.30	1.53	1.22	1.72	1.16	1.53	(c)1.39
Norway ..	0.96	1.31	0.52	0.66	1.00	1.14	0.90	(c)0.38
Spain ..	0.45	0.45	0.52	0.87	0.66	0.82	0.65	(c)0.72
Sweden ..	0.61	0.86	0.61	0.84	0.70	0.64	0.40	(c)0.30
Switzerland ..	1.22	1.10	1.28	1.17	0.81	0.01	0.38	(c)0.77
<b>ASIA—</b>								
Ceylon ..	1.41	2.03	1.62	1.20	1.71	1.28	2.30	(c)2.27
Japan ..	0.96	1.25	1.29	1.08	1.42	0.37	1.42	(c)1.48
<b>AMERICA—</b>								
Canada ..	0.97	1.19	2.99	2.99	2.20	1.81	1.33	1.97
United States ..	1.93	2.02	2.00	1.82	1.67	1.21	1.67	1.26

(a) Including Federal Capital Territory. (b) Including Northern Territory. (c) 1926 to 1930. (d) Australian figures subject to revision.

NOTE.—The minus sign (-) denotes decrease.

(ii) Variations in the Rates. The fluctuations in the rates of increase in the population of Australia are, for the greater part, due to variations in the volume of immigration.

## § 7. Seasonal Variations of Population.

I. Variations in Natural Increase.—The following notes are based on the experience of the ten years 1923–1932. For Australia as a whole, the rate of natural increase was greatest in the quarter ended 31st March, and least in the quarter ending 30th September. In New South Wales, Victoria, South Australia, Western Australia and Tasmania, the March quarter was the most favourable, and in Queensland the June quarter. The natural increase was lowest in New South Wales, Victoria, and South Australia in the September quarter, in Queensland and Western Australia in the December quarter, and in Tasmania in the June quarter.



2. **Variations in Net Immigration.**—For the decade 1923–32 for Australia as a whole the December quarter showed the greatest rate of increase from migration. The greatest gains in New South Wales have on the average occurred in the September quarter; in Victoria in the March quarter; in Queensland and Western Australia in the June quarter, and in South Australia and Tasmania in the December quarter. The gain to the southern States in the December quarter is due to oversea traffic and to tourists and sugar workers returning from Queensland, which loses heavily during the December quarter, but gains in the June quarter by tourists seeking the warmer climate. The June quarter has been most favourable to Queensland and Western Australia. The increase to Tasmania during the December quarter is from the influx of tourists from the mainland.

### § 8. Influences affecting Increase and Distribution.

In previous issues of the Official Year Book the influence of the various factors affecting the growth and distribution of population was traced. Detailed information on this subject will be found in Year Book No. 22, pp. 906 and 907.

### § 9. Density.

1. **General.**—From certain aspects population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,974,581 square miles, and a population on 31st December, 1931, of 6,613,291 including aboriginals, has a density of only 2.22 persons to the square mile, and is, therefore, the most sparsely populated of the civilized countries of the world. For the other continents the densities are approximately as follow:—Europe, 116; Asia, 70; Africa, 12; North and Central America, 20; and South America, 12. The population of Australia has thus about 18 per cent. of the density of South America and of that of Africa; about 11 per cent. of that of North and Central America; about 3 per cent. of that of Asia; and about 2 per cent. of that of Europe.

On account of the enormous area of Australia, the density of population must necessarily increase slowly. In Australia as a whole, the figure has increased from 1.29 per square mile in 1901, to 2.22 in 1932. Victoria's density, however, has grown from 13.77 to 20.63, and that of New South Wales from 4.43 to 8.38 in the same period.

A map showing the density of population throughout Australia at the Census of 1921 accompanies this chapter.

Particulars concerning the number and density of the population of the most important countries of the world at the 31st December, 1931, are given in the following table. These figures have been taken, with the exception of those for China, India, Afghanistan, Persia, Argentine and Australia, from the Statistical Year Book of the League of Nations 1932–33. The figures for the excepted countries other than Australia were taken from the "Statesman's Year Book, 1933". In some instances, more particularly in the cases of Asia and Africa, figures must be considered as rough approximations only.

## POPULATION, WORLD'S.—NUMBER AND DENSITY.—1931.

Country.	Population. (000 omitted)	Density. (a)	Country.	Population. (000 omitted)	Density. (a)
<b>EUROPE.</b>			<b>AFRICA.</b>		
Russia .. ..	128,800	55.6	Nigeria and Protectorate (c)	19,975	53.6
Germany .. ..	64,776	357.7	Egypt .. ..	14,920	38.6
Great Britain and North- ern Ireland .. ..	46,200	490.4	French West Africa .. ..	14,675	8.2
France .. ..	41,950	197.2	Abyssinia .. ..	5,500	15.8
Italy .. ..	41,477	346.5	Belgian Congo .. ..	10,000	10.9
Poland .. ..	32,176	214.8	Union of South Africa .. ..	8,192	17.4
Spain (including Canary and Balearic Islands) ..	23,800	122.6	Anglo-Egyptian Sudan .. ..	5,508	5.5
Rumania .. ..	18,300	160.7	Algeria .. ..	6,650	7.9
Czechoslovakia .. ..	14,823	274.2	Other .. ..	57,980	10.7
Yugoslavia .. ..	14,080	146.5	<b>Total Africa .. ..</b>	<b>143,400</b>	<b>12.4</b>
Hungary .. ..	8,743	243.5	<b>NORTH AND CENTRAL AMERICA.</b>		
Belgium .. ..	8,159	694.7	United States of America	124,450	41.1
Netherlands .. ..	8,062	610.9	Mexico .. ..	16,800	22.1
Austria .. ..	6,733	207.6	Canada .. ..	10,460	2.8
Portugal .. ..	6,930	190.9	Cuba .. ..	3,970	90.2
Greece .. ..	6,480	129.1	Other .. ..	14,780	13.0
Sweden .. ..	6,162	35.6	<b>Total North and Central America .. ..</b>	<b>170,460</b>	<b>19.7</b>
Bulgaria .. ..	6,067	152.6	<b>SOUTH AMERICA.</b>		
Switzerland .. ..	4,095	258.7	Brazil .. ..	42,721	13.0
Denmark .. ..	3,578	215.5	Argentina Republic .. ..	11,683	10.8
Finland .. ..	3,493	23.3	Colombia .. ..	8,400	18.8
Irish Free State .. ..	2,957	111.0	Peru .. ..	6,300	11.8
Norway .. ..	2,831	22.7	Chile .. ..	4,350	15.2
Other .. ..	9,678	63.0	Other .. ..	11,526	8.1
<b>Total Europe .. ..</b>	<b>510,350</b>	<b>115.7</b>	<b>Total South America .. ..</b>	<b>84,980</b>	<b>12.1</b>
<b>ASIA.</b>			<b>OCEANIA, ETC.</b>		
China and Dependencies	474,787	110.8	Australia (b) .. ..	6,612	2.2
British India :			New Zealand .. ..	1,522	14.7
British Provinces .. ..	289,491	219.8	Territory of New Guinea	540	5.9
Feudatory States .. ..	63,347	129.3	Hawaii .. ..	382	58.2
Japan and Dependencies	93,426	356.9	Papua .. ..	280	3.1
Dutch East Indies .. ..	61,900	84.4	Fiji .. ..	186	26.2
Russia in Asia .. ..	34,400	5.9	Other .. ..	484	17.4
Turkey, including Armenia and Kurdistan .. ..	13,600	47.7	<b>Total Oceania, &amp;c. .. ..</b>	<b>10,006</b>	<b>3.0</b>
Philippine Islands .. ..	12,504	109.4	<b>SUMMARY.</b>		
Siam .. ..	12,100	60.5	Europe .. ..	510,350	115.7
Afghanistan .. ..	11,000	43.8	Asia .. ..	1,132,225	70.0
Persia .. ..	10,000	15.9	Africa .. ..	143,400	12.4
Tonking .. ..	8,096	180.8	America, North and Central	170,460	19.7
Arabia .. ..	7,000	7.0	America, South .. ..	84,980	12.1
Nepal .. ..	5,600	103.6	Oceania, etc. .. ..	10,006	3.0
Ceylon .. ..	5,370	210.7	<b>Total .. ..</b>	<b>2,051,421</b>	<b>40.1</b>
Annam .. ..	5,122	88.4			
Other .. ..	24,488	43.3			
<b>Total Asia .. ..</b>	<b>1,132,225</b>	<b>70.0</b>			

(a) Number of persons per square mile.

(b) Including 60,000 aboriginals and corrected in accordance with the results of the Census of 30th June, 1933.

(c) Including British Cameroons.

2. Position of the British Empire.—The approximate relationship of the British Empire to the world as a whole in regard to its area and population is given hereunder :—

## BRITISH EMPIRE IN RELATION TO THE WORLD.

Particulars.	The World.	British Empire.
Area in square miles (exclusive of Polar Circles) .. ..	50,598,313	13,355,426
Population .. ..	2,051,421,000	491,886,000
Population per square mile .. ..	40.55	36.83

### § 10. General Characteristics.

1. Sex Distribution.—(i) *General.* Detailed information respecting the distribution of the sexes in the population of Australia will be found in previous issues of the Official Year Book, but limitations of space preclude its retention in the present issue. (See No. 22; page 910.)

(ii) *Masculinity.* On pages 163 to 165 in the second issue of this publication a table was included showing the masculinity of the population of each of the States for each year from 1796 to 1907. In the fifth issue, on page 123, the figures in this table for the years 1901 to 1907 were modified in accordance with the results of the Census of 3rd April, 1911.

The number of males to each hundred females has been adopted as the "masculinity" of the population. The figures for 1932 will be found on page 762 of this issue.

The figures for earlier years referred to above disclose an almost continuous decline until 1921 in the preponderance of males in the population, broken only during the war years. In 1900, the masculinity was 110.55; in 1910, 107.87 and in 1920, 103.47. Since 1921, however, the masculinity has tended to rise.

The difference between young and old countries in the masculinity of their populations is clearly illustrated by the comparisons furnished in the following table, which are based on the latest statistics available.

POPULATION OF VARIOUS COUNTRIES.—MASCULINITY.

Country.	Year.	Number of Males to each 100 Females.	Country.	Year.	Number of Males to each 100 Females.
Argentine Republic ..	1928	114.1	Sweden .. ..	1930	97.0
Ceylon .. ..	1921	112.5	Yugoslavia .. ..	1921	96.3
Canada .. ..	1931	107.5	Hungary .. ..	1930	95.7
India (Feudatory States)	1931	106.3	Denmark .. ..	1930	95.7
British India .. ..	1931	106.1	Norway .. ..	1930	94.9
New Zealand .. ..	1932	104.1	Spain .. ..	1920	94.0
Australia .. ..	1932	103.3	German Empire .. ..	1925	93.7
Union of South Africa(a)	1931	103.7	Northern Irelan .. ..	1929	93.5
Irish Free State .. ..	1928	103.0	Russia .. ..	1926	93.5
United States of America	1930	102.5	Poland .. ..	1921	93.4
Japan .. ..	1930	102.0	Scotland .. ..	1931	92.4
Netherlands .. ..	1930	98.8	France .. ..	1931	92.3
Belgium .. ..	1928	97.9	England and Wales .. ..	1931	92.0
Italy .. ..	1931	95.7			

(a) White population only.

2. Age Distribution.—The age distribution of the population is obtained only at a Census. The data collected at the Census of 1921 have been included in preceding issues of the Year Book (See No. 22, p. 912), but those for the Census of 1933 are not yet available.

An estimate has, however, been made of the age distribution in Australia at 31st December, 1932, and is given hereunder in quinquennial age groups for males, females and persons. Since no record is kept of the ages of inter-State migrants an accurate estimate of the age distribution for each State cannot be made.

## ESTIMATED POPULATION OF AUSTRALIA IN AGE GROUPS AT 31st DECEMBER, 1932.

Age Group.	Males.	Females.	Persons.
Under 5 years .. .. .	315,632	305,331	620,963
5 and under 10 .. .. .	325,898	317,656	643,554
10 " " 15 .. .. .	308,033	300,199	608,232
15 " " 20 .. .. .	316,706	306,942	623,648
20 " " 25 .. .. .	293,192	273,030	566,222
25 " " 30 .. .. .	269,525	243,914	513,439
30 " " 35 .. .. .	244,988	243,368	488,356
35 " " 40 .. .. .	240,205	244,921	485,126
40 " " 45 .. .. .	231,910	224,856	456,766
45 " " 50 .. .. .	197,472	190,375	387,847
50 " " 55 .. .. .	163,397	158,657	322,054
55 " " 60 .. .. .	134,072	130,750	264,822
60 " " 65 .. .. .	115,733	109,691	225,424
65 " " 70 .. .. .	91,405	87,260	178,665
70 " " 75 .. .. .	60,941	59,906	120,847
75 " " 80 .. .. .	30,413	30,827	61,240
80 " " 85 .. .. .	11,676	13,952	25,628
85 " " 90 .. .. .	3,826	5,301	9,127
90 " " 95 .. .. .	947	1,248	2,195
95 " " 100 .. .. .	151	175	326
100 and over .. .. .	20	16	36
<b>Total .. .. .</b>	<b>3,356,142</b>	<b>3,248,375</b>	<b>6,604,517</b>

3. Race and Nationality ; Education ; Religions ; Conjugal Condition ; Occupations ; Grade of Employment ; Unemployment.—Data collected at the Census of 1933 are not yet available. For information based on the Census of 1921, see Official Year Book No. 25, pp. 486 to 488.

## § 11. Dwellings.

The following table represents a preliminary summary of the information relating to dwellings which was obtained at the Census of the 30th June, 1933 :—

## DWELLINGS—AUSTRALIA, CENSUS 30th JUNE, 1933.

(Exclusive of Dwellings Occupied Solely by Full-blood Aborigines.)

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage on Total Dwellings in State.
NEW SOUTH WALES.					
Urban—					%
Metropolitan .. .. .	291,188	10,941	253	302,382	47.72
Provincial .. .. .	127,844	4,701	192	132,737	20.95
Rural .. .. .	185,140	13,095	301	198,536	31.33
<b>Total .. .. .</b>	<b>604,172</b>	<b>28,737</b>	<b>746</b>	<b>633,655</b>	<b>100.00</b>

DWELLINGS—AUSTRALIA, CENSUS 30TH JUNE, 1933—*continued.*

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage on Total Dwellings in State.
VICTORIA.					
Urban—					%
Metropolitan .. ..	237,582	6,669	394	244,645	53.38
Provincial .. ..	48,044	1,543	103	49,690	10.84
Rural .. ..	153,144	10,551	253	163,948	35.78
Total .. ..	438,770	18,763	750	458,283	100.00
QUEENSLAND.					
Urban—					%
Metropolitan .. ..	69,785	2,270	86	72,141	31.75
Provincial .. ..	45,196	2,618	77	47,891	21.08
Rural .. ..	102,612	4,423	138	107,173	47.17
Total .. ..	217,593	9,311	301	227,205	100.00
SOUTH AUSTRALIA.					
Urban—					%
Metropolitan .. ..	77,392	2,242	44	79,678	54.76
Provincial .. ..	12,409	478	22	12,909	8.87
Rural .. ..	50,190	2,633	94	52,917	36.37
Total .. ..	139,991	5,353	160	145,504	100.00
WESTERN AUSTRALIA.					
Urban—					%
Metropolitan .. ..	48,108	1,506	176	49,790	45.39
Provincial .. ..	10,205	270	26	10,501	9.57
Rural .. ..	47,086	2,253	58	49,397	45.04
Total .. ..	105,399	4,029	260	109,688	100.00
TASMANIA.					
Urban—					%
Metropolitan .. ..	14,160	495	23	14,678	26.57
Provincial .. ..	12,906	441	48	13,395	24.25
Rural .. ..	25,627	1,485	58	27,170	49.18
Total .. ..	52,693	2,421	129	55,243	100.00

DWELLINGS—AUSTRALIA, CENSUS 30TH JUNE, 1933—*continued.*

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage on Total Dwellings in State.
<b>FEDERAL CAPITAL TERRITORY.</b>					
Urban—					
Provincial .. ..	1,583	37	5	1,625	% 77.12
Rural .. ..	416	66	..	482	22.88
Total .. ..	1,999	103	5	2,107	100.00
<b>NORTHERN TERRITORY.</b>					
Urban—					
Provincial .. ..	452	17	1	470	% 28.87
Rural .. ..	1,120	38	..	1,158	71.13
Total .. ..	1,572	55	1	1,628	100.00
<b>AUSTRALIA.</b>					
Urban—					
Metropolitan .. ..	738,215	24,123	976	763,314	% 46.74
Provincial .. ..	258,639	10,105	474	269,218	16.48
Rural .. ..	565,335	34,544	902	600,781	36.78
Total .. ..	1,562,189	68,772	2,352	1,633,313	100.00

For Australia the average number of inmates per occupied dwelling was less in 1933 at 4.23 than in 1921 at 4.69. In the metropolitan areas it was also less at 4.21 than in 1921 at 4.76.

For Australia the proportion of unoccupied dwellings was practically the same in 1933 (4.21 per cent.) as in 1921 (4.23 per cent.) and for the metropolitan areas the respective percentages were—3.16 per cent. in 1933 and 2.77 per cent. in 1921. The total number of unoccupied dwellings in 1933 was 68,772 against 51,163, and in the metropolitan areas there were 24,123 unoccupied compared with 14,109 in 1921.

The number of dwellings reported as being built in 1933 was 2,352 or 0.14 per cent. of all dwellings, against 6,338 or 0.52 in 1921. In the metropolitan areas the percentage of dwellings being built was 0.13 in 1933 as compared with 0.82 per cent. in 1921.

The numerical relation between the population and dwellings is perhaps of greater importance in the metropolitan areas than elsewhere, and for those areas the cardinal facts, so far as they have been ascertained to date, are as follows :—The average number of inmates per occupied dwelling is slightly less, though the proportion of unoccupied dwellings is greater in 1933 than in 1921. The dwellings in course of construction, both in actual number and in relation to the numbers already existing, were much less in 1933 than at the earlier Census. The above figures convey the merest impression of what has been happening since 1921; more definite conclusions must await the analysis of the returns regarding occupied private dwellings according to the number of rooms and inmates.

### § 12. Oversea Migration.

1. Oversea Migration during Present Century.—Earlier issues of The Official Year Book contained in summary form tables showing the increase of population by net migration from 1861 to the latest date, while the Demography Bulletins issued by this Bureau give this information in respect of the individual years. In earlier pages of this Chapter a summary will be found of the increase of population by net migration by States—from 1901 to 1930 in quinquennial groups and from 1921 to 1932 in single years. The following table shows for Australia as a whole, the arrivals and departures as well as the net immigration since 1901. Departures and net immigration have been adjusted in accordance with the results of the Census of 1933.

#### OVERSEA MIGRATION.—AUSTRALIA.

Period.	Arrivals.			Departures.			Net Immigration.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
1901-05	196,993	84,167	281,160	204,170	93,783	297,953	-7,177	-9,616	-16,793
1906-10	251,482	119,552	371,034	213,483	100,273	313,756	37,999	19,279	57,278
1911-15	422,927	209,893	632,820	382,552	113,406	495,958	49,375	96,487	136,862
1916-20	438,721	100,764	539,485	390,202	78,574	468,776	48,519	22,190	70,709
1921-25	289,695	188,357	478,052	171,836	122,221	294,057	117,721	65,822	183,543
1926-30	266,593	203,887	470,480	193,014	147,409	340,423	73,580	56,478	130,058
1921 ..	53,221	34,777	87,998	44,739	25,173	69,912	8,345	9,239	17,575
1922 ..	58,057	35,456	93,513	30,934	22,360	53,303	27,122	13,087	40,209
1923 ..	56,415	36,444	92,859	29,623	23,470	53,093	26,792	12,974	39,766
1924 ..	62,400	41,267	103,667	32,785	24,754	57,539	29,615	16,513	46,128
1925 ..	59,602	40,473	100,075	33,755	26,455	60,210	25,847	14,018	39,865
1926 ..	62,743	45,181	107,924	35,677	27,400	63,077	27,066	17,781	44,847
1927 ..	66,540	47,883	114,423	37,445	28,333	65,778	32,095	19,550	51,645
1928 ..	55,921	47,871	103,792	39,303	30,362	69,665	16,610	13,509	30,128
1929 ..	44,508	37,740	82,248	39,669	30,687	70,356	4,839	7,053	11,892
1930 ..	33,881	29,212	63,093	40,920	30,627	71,547	-7,939	-1,415	-8,454
1931 ..	21,986	18,428	40,414	30,305	20,146	50,451	-8,319	-1,718	-10,037
1932 ..	22,637	19,360	41,997	24,826	20,124	44,947	-2,186	-764	-2,950

NOTE.—(—) Minus sign indicates an excess of departures over arrivals.

The figures in respect of departures and net immigration in the above table differ from those appearing in subsequent tables in this section. It has been found necessary in compiling estimates of population to make adjustments to departures (included above) which cannot be adapted to particulars as to country, age, occupation, etc.

The net immigration has varied greatly during the above periods, reaching a maximum in the five years 1921-25. The Great War naturally was responsible for a very large increase in the departures during the periods 1911-15 and 1916-20. Immigration increased rapidly from 1910 to 1912, the gain during the latter year being the greatest in any one year in the present century (with the exception of 1919 when the troops were returning to Australia).

Although the quinquennium 1926-30 as a whole resulted in the considerable gain of 130,058 persons, the figures for the individual years show the decline which set in after 1927 and which resulted in an actual loss of population in 1930-1931 and 1932. The figures for 1932 indicate that the drain by emigration is diminishing.

The influence of the Commonwealth immigration policy is clearly reflected in the above figures. The average annual number of nominated and selected immigrants arriving in Australia during the periods specified was as follows:—

Period.	Number.	Period.	Number.
1901-05 ..	Not available	1927 .. ..	30,123
1906-10 ..	7,945	1928 .. ..	22,394
1911-15 ..	30,111	1929 .. ..	12,943
1916-20 ..	2,326	1930 .. ..	2,683
1921-25 ..	23,090	1931 .. ..	275
1926-30 ..	19,881	1932 .. ..	175

The number of arrivals reached its peak in 1926, and has since diminished each year until only 175 were received in 1932.

At present, assistance is confined to nominees whose migration involves the reunion of a family.

2. **Country of Embarkation and Destination.**—The countries from which the migrants arrived or to which they departed are shown for 1932 in Demography Bulletin No. 50. Annual averages for the period 1925-29 will be found in Commonwealth Year Book No. 25.

3. **Nationality or Race.**—The great preponderance of migrants to and from Australia is of British nationality, while only a small proportion is of non-European race.

The number of arrivals and departures of migrants since 1921 classified according to nationality or race is shown in the next table.

NATIONALITY OR RACE OF ARRIVALS AND DEPARTURES.—AUSTRALIA.

• Nationality or Race.	Arrivals.			Recorded Departures.		
	1921-25.	1926-30.	1932.	1921-25.	1926-30.	1932.
British .. ..	404,792	386,669	35,020	252,502	285,780	37,977
French .. ..	2,738	3,394	540	2,319	3,341	496
German .. ..	1,052	3,172	252	858	1,988	215
Greek .. ..	4,247	3,842	192	856	2,068	296
Italian .. ..	17,092	19,170	1,147	3,510	8,724	1,302
Yugoslav .. ..	(a) 950	4,426	219	(a) 538	2,310	287
United States ..	6,875	8,916	769	4,143	8,225	823
Other European ..	12,659	15,355	733	5,043	7,061	898
Total European ..	450,405	444,944	38,872	269,769	319,497	42,294
Chinese .. ..	17,133	15,649	1,800	18,568	17,726	2,129
Japanese .. ..	2,256	1,762	360	2,748	2,029	320
India and Ceylon ..	2,150	2,790	350	2,176	2,119	326
Other Non-European	6,108	5,335	615	5,123	4,459	597
Total Non-European	27,647	25,536	3,125	28,615	26,333	3,372
Total .. ..	478,052	470,480	41,997	298,384	345,830	45,666

(a) 1925 only.

During the above periods there was a considerable influx of Greek, Italian and Yugoslav settlers, so that although there was also much concurrent emigration of these nationals they provided a large permanent addition to the population of the Commonwealth. Arrivals of Non-Europeans each year reach large proportions, but there is always a larger number of departures, so that in the net result the Non-European population decreases each year. The net gain or loss according to nationality or race for the same periods and the percentage is given below.



## NET GAIN OR LOSS.—NATIONALITY OR RACE.—AUSTRALIA.

Nationality or Race.	Net Gain or Loss.			Proportion.		
	1921-25.	1926-30.	1932.	1921-25.	1926-30.	1932.
				Per cent.	Per cent.	Per cent.
British .. ..	152,290	100,889	-2,957	84.76	80.94	-80.59
French .. ..	419	53	44	0.23	0.04	1.19
German .. ..	194	1,184	37	0.11	0.95	1.01
Greek .. ..	3,391	1,774	-104	1.89	1.42	-2.83
Italian .. ..	13,582	10,446	-155	7.56	8.38	-4.23
Yugoslav .. ..	412	2,116	-68	0.23	1.70	-1.85
United States .. ..	2,732	691	-54	1.52	0.55	-1.47
Other European .. ..	7,616	8,294	-165	4.24	6.66	-4.50
<b>Total European ..</b>	<b>180,636</b>	<b>125,447</b>	<b>-3,422</b>	<b>100.54</b>	<b>100.64</b>	<b>-93.27</b>
Chinese .. ..	-1,435	-2,077	-329	-0.80	-1.67	-8.97
Japanese .. ..	-492	-267	40	-0.27	-0.21	1.09
India and Ceylon .. ..	-26	671	24	-0.01	0.54	0.66
Other Non-European .. ..	985	876	18	0.54	0.70	0.49
<b>Total Non-European</b>	<b>-968</b>	<b>-797</b>	<b>-247</b>	<b>-0.54</b>	<b>-0.64</b>	<b>-6.73</b>
<b>Total ..</b>	<b>179,668</b>	<b>124,650</b>	<b>-3,669</b>	<b>100</b>	<b>100</b>	<b>-100</b>

Owing to the depressed conditions in Australia the gain by immigration decreased considerably in the successive periods in the table, and the year 1932 showed a recorded net loss of 3,669 persons which was, however, much lighter than the net loss of 10,830 persons recorded in 1931. The French, German, Japanese, Indian and "Other Non-European" nationalities or races alone showed net immigration in 1932, and in those cases it was of very small extent. Over 80 per cent. of the net immigration in 1921-30 consisted of persons of British nationality, and that percentage was equalled in 1932 though it had been only 66 per cent. in the previous year. In 1921-30 Non-Europeans contributed nothing to the net gain, but in 1932, emigrants of this race represented nearly 7 per cent. of the net loss of population.

4. Classes of Arrivals and Departures.—(i) *General.* Since 1st July, 1924, the recorded arrivals and departures have been classified according to the recorded intention of the migrant. The figures for the eight complete years are as follow:—

## MIGRANTS CLASSIFIED ACCORDING TO INTENDED RESIDENCE.—AUSTRALIA.

Classification.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	Total, 1926-32
Permanent new arrivals ..	59,464	67,078	48,233	31,698	17,537	9,441	9,868	299,796
Australian residents returning from abroad ..	23,657	23,883	24,834	25,652	23,369	13,357	13,098	168,182
Temporary visitors ..	24,795	26,435	26,721	24,892	22,186	17,616	19,031	184,912
Not stated ..	8	27	4	6	1	..	..	76
<b>Total Arrivals ..</b>	<b>107,924</b>	<b>117,423</b>	<b>99,792</b>	<b>82,248</b>	<b>63,093</b>	<b>40,414</b>	<b>41,997</b>	<b>652,966</b>
Australian residents departing permanently ..	17,433	17,932	19,648	21,925	27,765	21,865	14,686	158,211
Departing temporarily ..	22,051	22,523	24,045	24,459	20,347	10,345	13,002	157,438
Temporary visitors ..	24,560	26,351	27,060	25,084	24,569	19,029	17,978	188,135
Not stated ..	42	14	15	7	..	5	..	119
<b>Total Departures ..</b>	<b>64,086</b>	<b>66,820</b>	<b>70,768</b>	<b>71,475</b>	<b>72,681</b>	<b>51,244</b>	<b>45,666</b>	<b>503,903</b>

Permanent new arrivals have decreased very considerably in recent years, the number for 1932 being only one-seventh of that of 1927. On the other hand, permanent departures were far more numerous in the latter than in the earlier years of the period. Permanent departures in 1932 were, however, relatively few, the number 14,686 being the lowest recorded. Up to and including 1929 there was a considerable gain of permanent residents, but during 1930 and 1931 there was a heavy loss. The loss was reduced considerably in 1932.

The figures in the table above are based on the information supplied by travellers at the time of arrival or departure. For various reasons the intentions of travellers are subject to subsequent modification, and the figures quoted in the table must therefore be accepted as a record of intention only.

(ii) *Nationality or Race.* The nationality or race of the net permanent addition to the population since 1925, and the percentage of each nationality or race on the total, are given hereunder:—

**NET GAIN OR LOSS OF PERSONS INTENDING PERMANENT RESIDENCE IN AUSTRALIA.**

Nationality or Race.	1925-29.	1930.	1931.	1932.	1925-29.	1930.	1931.	1932.
					Per cent.	Per cent.	Per cent.	Per cent.
British.. ..	26,310	-9,936	-9,347	-4,288	77.81	-97.14	-75.23	-89.00
French.. ..	68	-18	-53	-17	0.20	-0.18	-0.43	-0.35
German .. ..	258	61	43	44	0.76	0.60	0.34	0.91
Greek .. ..	584	-131	-362	-35	1.73	-1.28	-2.91	-0.72
Italian .. ..	3,713	521	-735	119	10.98	5.09	-5.92	2.47
Yugoslav .. .	727	-53	-260	-47	2.15	-0.52	-2.09	-0.98
United States ..	21	-11	-160	-28	0.06	-0.11	-1.29	-0.58
Other European	2,135	151	-418	-135	6.33	1.48	-3.36	-2.80
<b>Total European</b>	<b>33,816</b>	<b>-9,416</b>	<b>-11,292</b>	<b>-4,387</b>	<b>100.02</b>	<b>-92.06</b>	<b>-90.89</b>	<b>-91.05</b>
Chinese .. ..	-381	-561	-465	-368	-1.13	-5.49	-3.74	-7.64
Japanese .. ..	-33	-171	-522	-31	-0.10	-1.67	-4.20	-0.65
India and Ceylon	26	32	12	-3	0.08	0.31	0.09	-0.06
Other Non-European ..	383	-112	-157	-29	1.13	-1.09	-1.26	-0.60
<b>Total Non-European ..</b>	<b>-5</b>	<b>-812</b>	<b>-1,132</b>	<b>-431</b>	<b>-0.02</b>	<b>-7.94</b>	<b>-9.11</b>	<b>-8.95</b>
<b>Total ..</b>	<b>33,811</b>	<b>-10,228</b>	<b>-12,424</b>	<b>-4,818</b>	<b>100</b>	<b>-100</b>	<b>-100</b>	<b>-100</b>

The net gain of permanent residents changed from 33,811 in 1925-29 to a loss of 12,424 in 1931. The net loss in 1932, was 4,818. British nationals contributed 26,310 or 77.81 per cent. of the gain in 1925-29, 9,347 or 75.23 per cent. of the loss in 1931, and 4,288 or 89 per cent. of the loss in 1932. Italian immigration also declined until there was a loss of 735 during 1931. In the case of Non-European migrants there is a considerable influx of Chinese intending permanent residence in Australia, but, on the other hand, a greater number of Chinese depart permanently, with the result that the Chinese population of Australia is constantly diminishing. Similar conditions apply in regard to the Japanese, particularly in 1931, when the excess of departures represented 4.20 per cent. of the total loss by migration; but in 1932 the excess of departures was much smaller both in number and per cent. of total loss.

The total Non-European population has diminished by migration since 1925, the average net loss for 1925-29 being five, increasing to 1,132 in 1931 and falling to 431 in 1932.

(iii) *Ages.* The ages of all persons who arrive in or depart from Australia have been obtained during recent years. The following table sets out the data for the period 1925 to 1932 and shows the ages of persons intending permanent residence and of persons departing permanently.

**AGES OF PERMANENT NEW ARRIVALS OR PERMANENT DEPARTURES.—  
AUSTRALIA.**

Ages.	Permanent New Arrivals.		Permanent Departures.		Gain or Loss.		
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	
Under 15	1925-29(a)	9,539	18.14	2,242	11.94	7,297	21.58
	1930 ..	2,835	16.17	3,722	13.41	-887	-8.67
	1931 ..	1,552	16.44	3,021	13.82	-1,469	-11.83
	1932 ..	1,655	16.77	2,003	13.64	-348	-7.22
15 and under 45	1925-29(a)	35,525	67.55	11,034	58.76	24,491	72.43
	1930 ..	10,398	59.29	17,032	61.34	-6,634	-64.86
	1931 ..	5,004	53.00	14,136	64.65	-9,132	-73.50
	1932 ..	5,432	55.05	8,907	60.65	-3,475	-72.13
45 and over and not stated	1925-29(a)	7,526	14.31	5,503	29.30	2,023	5.99
	1930 ..	4,304	24.54	7,011	25.25	-2,707	-26.47
	1931 ..	2,885	30.56	4,708	21.53	-1,823	-14.67
	1932 ..	2,781	28.18	3,776	25.71	-995	-20.65

(a) Annual average. Minus sign (-) indicates loss by migration.

The table indicates a change in arrivals from the lower to the higher ages. Whereas in the earlier period young and middle-aged persons accounted for more than two-thirds of the arrivals, in 1931 they were little more than half. Concurrently the proportion of older people increased from one in seven to almost one in three.

A reverse movement was in progress in the departures, in which the proportion of persons under 45 years of age increased. The depression has prompted the departure of many persons in the age group 15-45 with children to other lands in search of employment, while the same causes have probably caused many males in the older age groups who might have intended to return to their native land in later life to postpone their departure to a more favourable occasion.

(iv) Occupations. The occupations of permanent male arrivals, and of Australian residents departing permanently are as follow:—

**OCCUPATIONS OF PERMANENT NEW ARRIVALS OR PERMANENT DEPARTURES.—AUSTRALIA.**

Occupations.	Permanent Arrivals.			Permanent Departures.			Net Gain or Loss.		
	1925-29. (a)	1931.	1932.	1925-29. (a)	1931.	1932.	1925-29. (a)	1931.	1932.
Professional ..	1,636	616	968	1,185	936	1,213	451	-320	-245
Domestic ..	482	120	248	332	290	357	150	-170	-109
Commercial ..	3,207	757	712	1,702	1,550	782	1,505	-793	-70
Transport and Communication ..	1,270	163	245	444	462	343	826	-299	-98
Industrial ..	7,091	705	776	3,045	5,712	1,130	4,046	-5,007	-354
Primary Pro- ducers ..	12,924	1,663	1,585	3,282	3,304	1,936	9,642	-1,641	-351
Independent ..	63	14		77	62		-14	-48	
Dependants and Not Stated ..	5,392	929	5,334 <sup>b</sup>	1,407	1,868	8,925 <sup>b</sup>	3,985	-939	-3,591 <sup>b</sup>
<b>Total ..</b>	<b>32,065</b>	<b>4,967</b>	<b>9,868</b>	<b>11,474</b>	<b>14,184</b>	<b>14,686</b>	<b>20,591</b>	<b>-9,217</b>	<b>-4,818</b>

(a) Annual average. Minus sign (-) indicates loss. (b) Includes labourers, clerks, etc. where no industry was stated, permanent arrivals, 466; permanent departures, 2,622; net loss, 2,156; these latter were formerly included in the industrial or commercial group.

### § 13. Immigration.

#### (A) The Encouragement of Immigration into Australia.

1. **Joint Commonwealth and States' Immigration Scheme.**—An outline of the arrangements made between the Commonwealth and State Governments to regulate immigration into Australia will be found in Official Year Book No. 22, p. 929.

Owing to financial and industrial depression, the Commonwealth Government, early in 1930, decided to reduce the flow of assisted migrants by limiting the assisted passage concession to boys for farm work, young women for household employment, and to nominees, mainly wives and children of husbands in Australia.

The Governments of the various States have since cancelled all requisitions for boys and household workers, so that assisted passages are now confined to persons whose migration involves the reunion of a family.

2. **Assisted Passages.**—The British and Commonwealth Governments jointly donate the following contributions towards the passages of approved settlers for Australia from the United Kingdom :—Children under 12 years, £16 10s. (representing the full fare at half rate); juveniles 12 and under 17 years, £27 10s.; juveniles 17 years and under 19 years, £22; married couples, including widowers or widows, and wives nominated by husbands, with at least one child under 19 years, £22 per parent (children at rate according to age); household workers, £22; others, including children 19 years of age and over, £16 10s. Allowing for this financial assistance, children under 12 years will be carried free; juveniles 12 years of age and under 17 years, who are ordinarily charged for by the shipping companies as adult passengers, will merely require to pay £5 10s. each; juveniles 17 years and under 19 years, £11 each; married couples, including widowers or widows, and wives nominated by husbands, with at least one child under 19 years, £11 per parent (children at rate according to age); household workers, £11; others, including children 19 years and over, £16 10s. each. Persons who have previously resided in the Commonwealth are not eligible for assistance. In addition to these contributions, loans of the balance of the passage money are in special cases granted by the Governments concerned. Persons entitled to assisted passages are divided into two classes—"Selected" and "Nominated." "Selected" immigrants are those such as boy farm learners and household workers who were originally recruited abroad by the Commonwealth Government. "Nominated" immigrants are those nominated by persons resident in Australia, and the nominators, who must submit their applications through the officers in charge of the State Immigration Offices in the various capital cities, are held responsible for their nominees upon arrival, so that they shall not become a burden upon the State.

Intending settlers or immigrants may, on application, obtain full information from the Official Secretary, High Commissioner's Office, Australia House, Strand, London, W.C.2; or from the Secretary, Department of the Interior, Canberra, F.C.T.

3. **Results of Assisted Immigration.**—The number of assisted immigrants for the years 1929 to 1931 and the total from the earliest years up to the end of 1931 are given in the following table :—

ASSISTED IMMIGRATION.—NUMBERS.

Persons.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	F.C. Terr.	Total.
No. Assisted during 1929	5,431	2,604	1,292	526	2,976	101	13	12,943
" " " 1930	1,174	468	484	61	471	20	5	2,683
" " " 1931	76	45	43	6	99	5	1	275
" " " 1932	21	3	23	..	123	5	..	175
Total from earliest years to end of 1932	345,807	255,305	235,992	115,817	86,207	24,957	67	1,064,152

Particulars of occupations of the number of selected and nominated immigrants during 1932 are shown below :—

**ASSISTED IMMIGRATION.—SEXES AND INDUSTRIAL GROUPS, AUSTRALIA, 1932.**

Industrial Group.	Selected.			Nominated.		
	Males.	Females.	Total.	Males.	Females.	Total.
I. Wood, Furniture, etc. .. .. .	..	..	..	..	..	..
II. Engineering, Metal Works, etc. .. .. .	..	..	..	..	..	..
III. Food, Drink, Tobacco, etc. .. .. .	..	..	..	..	..	1
IV. Clothing, Hats, Boots, etc. .. .. .	..	..	..	..	2	2
V. Books, Printing, etc. .. .. .	..	..	..	..	..	..
VI. Other Manufacturing .. .. .	..	..	..	..	..	..
VII. Building .. .. .	..	..	..	..	..	..
VIII. Mining .. .. .	..	..	..	..	..	..
IX. Rail and Tramway Services .. .. .	..	..	..	..	..	..
X. Other Land Transport .. .. .	..	..	..	..	..	..
XI. Shipping, Wharf Labour, etc. .. .. .	..	..	..	..	..	..
XII. Pastoral, Agricultural, etc. .. .. .	58	..	58	..	..	..
XIII. Domestic, Hotels, etc. .. .. .	..	56	56	..	4	4
XIV. General Labour and Miscellaneous .. .. .	..	..	..	2	4	6
Dependants .. .. .	..	..	..	23	25	48
<b>Total .. .. .</b>	<b>58</b>	<b>56</b>	<b>114</b>	<b>25</b>	<b>36</b>	<b>61</b>

**(B) The Regulation of Immigration into Australia.**

1. Powers and Legislation of the Commonwealth.—(i) *Constitutional.* Under Part V., Sec. 51, xxvii. and xxviii. of the Commonwealth Constitution Act, the Parliament of the Commonwealth is empowered to make laws with respect to immigration and emigration and the influx of criminals.

(ii) *Legislation.* A summary of the provisions of the Immigration Act 1901–1925 and the Contract Immigrants Act 1905 (excepting the provisions of the Amending Immigration Acts of 1920, 1924 and 1925, which will be found in *Official Year Book*, No. 21, p. 927), containing particulars regarding the admission of immigrants, prohibited immigrants, the liabilities of shipmasters and others, and kindred matters will be found in preceding Year Books (see Year Book, No. 12, pp. 1166 to 1168).

*The Immigration Act 1930.*—Under this Act it is provided that Section 5, subsection (1), of the Immigration Act 1901–1925, applies to any person who, since the commencement of the Immigration Restriction Act 1901, evaded an officer when entering the Commonwealth, or gained admission or re-admission by fraudulent means. Steps can be taken to deal with such persons as prohibited immigrants at any time after they have landed in Australia.

*The Immigration Act 1932.*—This Act provides (a) that any alien who fails to satisfy an officer that he holds a landing permit, or that his admission has been authorized, may be prohibited from landing; (b) for the increase of the period during which a person may be declared a prohibited immigrant from three to five years; (c) that a person not a British subject and who has been convicted of a crime of violence against the person may be deported pursuant to an order of the Minister without his being subjected to a dictation test; (d) for the deportation of a person who has been convicted of a criminal offence or who has become an inmate of an insane asylum or public charitable institution within five years from the date of arrival instead of three years as hitherto; and (e) that where the wife of a person whom it is proposed to deport so desires, her name and the names of her dependent children may be included in her husband's deportation order. This would of course apply only to wives and children who were themselves immigrants.

2. Conditions of Immigration into Australia.—(i) *Immigration of Non-European or Coloured Persons.* In pursuance of the "White Australia" policy, the general practice is not to permit Asiatics or other coloured immigrants to enter Australia for the purpose of settling permanently.

There are special arrangements with India, Japan, and China under which facilities are afforded for subjects of those countries who are bona fide merchants, students, or tourists to enter and remain in Australia under exemption whilst they retain their status.

(ii) *Immigration of White Aliens.* Owing to economic conditions in Australia, it has been found necessary to continue to restrict alien immigration to persons who obtain landing permits or special authority for admission from the Department of the Interior. Such authority, as a rule, is being confined to very close dependent relatives of persons already settled in Australia, but cases having special features are considered on their merits, and provision has also been made for the temporary admission of bona fide visitors who may wish to enter the Commonwealth for purposes of business or pleasure.

Aliens seeking to enter Australia are also required to hold valid national passports visaed by a British Consul for travel to Australia except in cases where visa requirements have been abolished by reciprocal arrangements to which the Commonwealth Government of Australia is a party. The exemptions so far apply to nationals of the following countries, viz. :—Belgium, Denmark, France, Italy, Liechtenstein, Norway, Sweden, Switzerland, Holland, Germany and Austria.

(iii) *General Information.* General information as to conditions of entry into Australia may be obtained from the following offices :—

- (a) In Australia : The Secretary, Department of the Interior, Canberra, F.C.T., Australia ; (b) In Great Britain : The Official Secretary, Australia House, Strand, London, England ; (c) In the United States of America : The Official Secretary, Commissioner for Australia in the United States of America, "Cunard Building," 25 Broadway, New York City, U.S.A.

3. *Persons Admitted Without Dictation Test.*—The following table shows the number and nationality of persons admitted during the year 1932 without passing the dictation test :—

PERSONS ADMITTED WITHOUT DICTATION TEST.—NATIONALITIES,  
AUSTRALIA, 1932.

Nationality or Race.	1932.	Nationality or Race.	1932.
Albanian .. .. .	4	American Negroes .. .. .	2
Austrian .. .. .	23		
Belgian .. .. .	53	ASIATICS—	
British .. .. .	35,020	Arabs .. .. .	..
Bulgarian .. .. .	2	Chinese .. .. .	805
Danish .. .. .	44	Filipinos .. .. .	3
Dutch .. .. .	114	Japanese .. .. .	330
Estonian .. .. .	9	Javanese .. .. .	4
Finnish .. .. .	9	Malays .. .. .	89
French .. .. .	540	Natives of India and Ceylon	129
German .. .. .	252	Palestinians .. .. .	14
Greek .. .. .	192	Syrians .. .. .	29
Italian .. .. .	1,147		
Maltese (British) .. .. .	45	OTHER RACES—	
Norwegian and Swedish .. .. .	59	Pacific Islanders .. .. .	58
Polish .. .. .	124	Papuans .. .. .	239
Russian .. .. .	73	Unspecified .. .. .	93
Spanish .. .. .	29		
Swiss .. .. .	60		
Yugoslavian .. .. .	219		
United States of America .. .. .	769		
Other Whites .. .. .	85	Total .. .. .	40,667

4. *Departures of Persons of Non-European Races.*—The number of persons of non-European races who left Australia during the year 1932 was 2,132, distributed among the various nationalities as follows :—American Negroes, 2 ; Chinese, 1,165 ; Filipinos, 13 ; Natives of India and Ceylon, 147 ; Japanese, 287 ; Javanese, 7 ; Koepangers, 212 ; Malays, 28 ; Papuans, 228 ; Pacific Islanders, 26 ; and others, 17.

**(C) Passports.**

Provision is made in the Immigration Act 1901-1932 for the production of passports by all persons over 16 years of age who desire to enter Australia. Similarly, the Passports Act 1920 provides that no person over the age of 16 years shall leave Australia unless—

- (a) he is the holder of a passport or other document authorizing his departure; and
- (b) his passport has been visaed or indorsed in the prescribed manner for that journey, and the visa or indorsement has not been cancelled.

Among the exceptions to this requirement are natural-born British subjects leaving for New Zealand, Papua, or Norfolk Island; members of the crew of any vessel who sign on in Australia for an oversea voyage and who satisfy an authorized officer that they are by occupation seafaring men; aboriginal natives of Asia, or of any island in the East Indies, or in the Indian or Pacific Oceans. The charge for a Commonwealth passport is £1, for an ordinary visa 16s., and for a transit visa 4s.

With regard to (b), the Commonwealth Government has agreed to the inclusion of Australia in reciprocal arrangements for the abolition of visa requirements made by the British Government with the respective Governments of the following countries, viz. :— France, Switzerland, Liechtenstein, Italy, Belgium, Denmark, Sweden, Norway, Holland, Germany and Austria.

**§ 14. Naturalization.**

1. *Commonwealth Legislation.*—Naturalization in Australia is governed by the Nationality Act 1920-1930. The qualifications necessary for naturalization are :— (a) Residence in Australia continuously for not less than one year immediately preceding application for naturalization, and previous residence, either in Australia or in some other part of His Majesty's dominions, for a period of four years within the last eight years before the application; (b) good character and an adequate knowledge of the English language; and (c) intention to settle in the British Empire.

The amending Act of 1930 provided for the charge of a prescribed fee for a Certificate of Naturalization. The fee is £5, except in the case of a certificate granted to a woman who was a British subject prior to her marriage to an alien, in which case the amount is 5s.

A summary of the main provisions of the Principal Act will be found in Official Year Book No. 22, pp. 934-935.

2. *Certificates Granted.*—(i) *Australia.* Particulars regarding the previous nationalities of the recipients of certificates of naturalization issued under the Act during the year 1932, and the countries from which such recipients had come, are given in the following table :—

**NATURALIZATION.—COMMONWEALTH CERTIFICATES GRANTED, 1932.**

Previous Nationalities of Recipients.	No. of Certificates Granted.	Previous Nationalities of Recipients.	No. of Certificates Granted.	Countries from which Recipients of Commonwealth Certificates had come.	No. of Certificates Granted.	Countries from which Recipients of Commonwealth Certificates had come.	No. of Certificates Granted.
Italian ..	655	Portuguese ..	1	Great Britain ..	83	Belgium ..	4
Swedish ..	33	Austrian ..	4	Italy ..	663	New Zealand ..	12
Danish ..	22	Syrian ..	25	Germany ..	60	Switzerland ..	15
Russian ..	77	Polish ..	74	America (North) ..	33	Spain ..	9
German ..	75	Finnish ..	27	Sweden ..	12	Palestine ..	33
Norwegian ..	24	Yugoslavs ..	161	Denmark ..	10	Poland ..	44
Greek ..	133	Estonians ..	25	Norway ..	15	Syria ..	22
American (North) ..	15	Czechoslovakians ..	13	Greece ..	111	Finland ..	15
Dutch ..	11	Albanians ..	11	France ..	42	Yugoslavia ..	129
Swiss ..	21	Latvians ..	4	Egypt ..	20	China ..	46
French ..	16	Others ..	28	America (South) ..	8	Other Countries ..	65
Spanish ..	13			Holland ..	12		
Belgian ..	2			Russia ..	9		
Rumanian ..	7			South Africa ..	5		
		Total ..	1,477			Total ..	1,477

(ii) *States.* The certificates of naturalization granted in 1932 were issued in the various States as follows :—New South Wales, 345; Victoria, 282; Queensland, 384; South Australia, 143; Western Australia, 310; Tasmania, 9; Northern Territory, 3; and 1 in the Federal Capital Territory.

### § 15. Population of Territories.

At the Census of the 30th June, 1933, special arrangements were made to obtain complete and uniform information concerning each of the five Territories of Australia and the Mandated Territory of Nauru, viz. :—(1) Northern Territory; (2) Federal Capital Territory; (3) Norfolk Island; (4) Papua; (5) Territory of New Guinea; and (6) Mandated Territory of Nauru.

A summary of the population and number of dwellings in each Territory at the Census of 1933 is given in the following table :—

#### POPULATION AND DWELLINGS.—TERRITORIES, 30th JUNE, 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS IN THE NORTHERN AND FEDERAL CAPITAL TERRITORIES AND OF THE INDIGENOUS POPULATION OF PAPUA AND NEW GUINEA.)

Territory.	Population.			Dwellings.			Total.
	Males.	Females.	Persons.	Occu- pied.	Unoccu- pied.	Being Built.	
Northern Territory ..	3,376	1,484	4,860	1,572	55	1	1,628
Federal Capital Territory ..	4,807	4,140	8,947	1,999	103	5	2,107
Norfolk Island ..	662	569	1,231	383	34	6	423
Papua ..	1,241	941	2,182	677	35	1	713
Territory of New Guinea ..	3,710	1,505	5,215	1,788	26	7	1,821
Nauru (Mandate)..	1,037	64	1,101	81	13	..	94

### § 16. The Aboriginal Population.

In Official Year Book No. 17, pp. 951 to 961, a brief account was given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. At a Census of aboriginals taken on 30th June, 1932, 59,719 full-bloods were enumerated, of whom 36,524 were described as nomadic, 9,294 were in regular employment and 9,961 were living in supervised camps. There were at the same date 19,196 half-castes. The aboriginals are scattered over the whole of the mainland, but the majority are concentrated chiefly in Western Australia, Queensland and the Northern Territory. Pages 914 to 916 in Official Year Book No. 22 give particulars for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the Continent appeared on pages 687–696 of Official Year Book No. 23.

### § 17. The Chinese in Australia.

In Official Year Book No. 18, pp. 951 to 956, a brief historical sketch was given regarding "The Chinese in Australia."

### § 18. The Pacific Islanders in Australia.

In Official Year Book No. 19, pp. 902–3, a brief account was given of the introduction of Kanakas into Australia.



## CHAPTER XXVI.

### VITAL STATISTICS.

NOTE.—The rates published in this chapter in relation to the population since 1921 are subject to amendment after the populations have been adjusted in accordance with the results of the Census of the 30th June, 1933.

#### § 1. Births.

1. Births, 1932.—The number of male and female births and the total births registered in Australia during the year are shown in the tables hereunder. The numerical relation which these births bear to the population, and various other associated features, are given in later tables.

#### BIRTHS, 1932.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Ter.	Fed. Cap. Ter.	Australia.
<b>MALE BIRTHS.</b>									
Single births	22,683	13,806	8,711	4,263	4,034	2,235	37	82	55,851
Twins ..	431	265	208	90	88	34	2	..	1,118
Triplets ..	..	5	1	..	..	..	..	..	6
<b>Total ..</b>	<b>23,114</b>	<b>14,076</b>	<b>8,920</b>	<b>4,353</b>	<b>4,122</b>	<b>2,269</b>	<b>39</b>	<b>82</b>	<b>56,975</b>
<b>FEMALE BIRTHS.</b>									
Single births	21,375	13,155	8,250	4,066	3,756	2,180	40	69	52,891
Twins ..	400	233	195	102	87	42	..	..	1,059
Triplets ..	6	..	2	..	..	..	..	..	8
<b>Total ..</b>	<b>21,781</b>	<b>13,388</b>	<b>8,447</b>	<b>4,168</b>	<b>3,843</b>	<b>2,222</b>	<b>40</b>	<b>69</b>	<b>53,958</b>
<b>TOTAL BIRTHS.</b>									
Single births	44,058	26,961	16,961	8,329	7,790	4,415	77	151	108,742
Twins ..	(a) 831	(b) 498	(c) 403	192	(d) 175	76	2	..	(e) 2,177
Triplets ..	6	(f) 5	3	..	..	..	..	..	14
<b>Total ..</b>	<b>44,895</b>	<b>27,464</b>	<b>17,367</b>	<b>8,521</b>	<b>7,965</b>	<b>4,491</b>	<b>79</b>	<b>151</b>	<b>110,933</b>
<b>TOTAL CONFINEMENTS.</b>									
Nuptial Mothers ..	42,155	26,014	16,322	8,146	7,548	4,204	62	146	104,597
Ex-nuptial Mothers ..	2,327	1,199	844	279	333	249	16	5	5,252
<b>Total Mothers</b>	<b>44,482</b>	<b>27,213</b>	<b>17,166</b>	<b>8,425</b>	<b>7,881</b>	<b>4,453</b>	<b>78</b>	<b>151</b>	<b>109,849</b>

(a) Thirteen stillborn twins not included. (b) Two stillborn twins not included. (c) Five stillborn twins not included. (d) Seven stillborn twins not included. (e) Twenty-seven stillborn twins not included. (f) One stillborn triplet not included.

2. Birth Rates.—The next table gives the crude birth rates from 1901 to 1932.

CRUDE BIRTH RATE.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1901 ..	27.78	25.77	28.52	25.41	30.39	28.58	6.72	(b)	27.16
1911 ..	28.58	25.01	27.63	28.86	28.22	28.60	9.36	16.84	27.20
1921 ..	25.93	23.16	26.64	24.08	23.39	26.98	20.23	10.87	24.95
1928 ..	22.60	19.70	21.76	19.76	21.79	22.13	19.73	14.90	21.33
1929 ..	21.39	18.99	19.99	18.40	22.00	22.44	12.69	18.25	20.31
1930 ..	20.95	18.56	20.14	17.19	21.98	22.11	15.27	18.66	19.93
1931 ..	19.02	16.88	18.62	15.56	20.32	21.65	15.68	18.68	18.23
1932 ..	17.75	15.21	17.89	14.54	18.85	20.25	17.51	17.30	16.94

(a) Number of births per 1,000 of the mean annual population.

(b) Part of New South Wales.

The preceding table shows a progressive reduction from 1901 to 1932, broken only by a slight rise in 1911 in some of the States and in Australia as a whole. The rate for Australia for 1932 represents only 62 per cent. of that for 1901 and is the lowest yet recorded.

The principal factor in determining the crude birth rate is the proportion of *married* women of child-bearing age in the community, but as the fecundity of women varies with age, the birth rate per 1,000 married women will vary according to the age composition of the group, and, other things being equal, the rate generally should be highest where the average age of married women is lowest. For the purposes of the following table the child-bearing age has been taken as from 15-44 years inclusive, and all births of which the mothers were stated to be over 45 years have been counted in the group 40-44. Exact information in respect of ages in this table is only available at census dates. An estimate based on a projection of data obtained at the Census of 1921 has, however, been made of married and unmarried women for the period 1930-1932, and the accompanying rates have been calculated thereon.

BIRTH RATES, AND FACTORS AFFECTING THEM.

Particulars.	1920-22. (Age Distribution at Census of 1921.)							1930-1932.
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.	Australia.
Crude birth rate per 1,000 persons	25.99	23.54	26.72	24.23	24.14	26.99	25.15	18.36
Birth rate per 100 women 15-44 inclusive .. .. .	11.04	9.79	11.83	10.25	11.05	11.91	10.74	7.92
Birth rate per 100 married women 15-44 incl. (a) .. .. .	19.39	19.29	21.26	18.71	19.62	21.83	19.65	14.49
Birth rate per 100 married women 15-44 incl. (corrected for age variation) .. .. .	19.14	19.44	20.77	18.99	20.44	21.24	19.65	14.49
Ex-nuptial births—per cent. on all births .. .. .	4.82	4.84	5.00	3.28	4.02	5.11	4.69	4.77
Ex-nuptial births per 100 unmarried women 15-44 incl. ..	1.16	0.92	1.26	0.72	0.92	1.26	1.05	0.79
Women 15-44 incl.—per cent. all persons .. .. .	23.54	24.02	22.57	23.65	21.83	22.67	23.41	23.19
Average age of all women 15-44 incl. .. .. .	28.67	28.61	28.09	28.73	28.45	28.10	28.54	29.17
Married women 15-44 incl.—per cent. on all persons .. .. .	12.75	11.61	11.93	12.53	11.81	11.73	12.20	12.06
Average age of married women 15-44 incl. .. .. .	32.24	32.74	32.16	32.67	33.02	32.16	32.48	33.20b

(a) Nuptial births only.

(b) Approximate.

The following figures give a comparison for Australia, based on data obtained at Census periods, of the total births per 1,000 women (married and unmarried) and of the nuptial births per 1,000 married women of ages 15 to 44 inclusive:—

Particulars.	1880-82.	1890-92.	1900-02.	1910-12.	1920-22.	1930-32.
Births per 1,000 women aged 15-44 ..	169.7	158.8	117.3	117.2	107.4	79.2
Nuptial births per 1,000 married women 15-44	321.0	332.0	235.8	236.0	196.5	144.9

3. Birth Rates of Various Countries.—(i) *Crude Rates.* A comparison with other countries shows that the Australian States occupy a midway position, which is, however, counterbalanced by a still lower position in regard to their death rates, as evidenced in the table hereinafter in the section dealing with "Deaths." The rates for the pre-war period 1908-1913 have been added for purposes of comparison.

#### CRUDE BIRTH RATES.(a)—VARIOUS COUNTRIES.

Country.	1908 to 1913.	1932.	Country.	1908 to 1913.	1932.
Egypt .. ..	43.6	44.8(e)	Irish Free State .. ..	23.1	18.9
Soviet Republics .. ..	45.6	42.7	Scotland .. ..	26.2	18.6
Ceylon .. ..	36.9	37.0	Belgium .. ..	23.4	18.2(e)
Rumania .. ..	43.1	33.3(e)	Denmark .. ..	27.1	18.0(e)
Japan .. ..	32.9	32.2(e)	Queensland .. ..	28.2	17.9
Portugal .. ..	34.6	30.7	New South Wales .. ..	28.2	17.8
Argentina .. ..	37.1	28.8(e)	U.S. of America(b) .. ..	(c)	17.4
Poland .. ..	37.4	28.7	France .. ..	19.5	17.3
Spain .. ..	32.1	28.1	New Zealand .. ..	26.5	17.1
Union of South Africa			<b>Australia .. ..</b>	<b>27.4</b>	17.0
(whites) .. ..	(c)	24.3	Switzerland .. ..	24.7	16.7
Italy .. ..	32.4	23.8	Norway .. ..	26.0	16.3
Canada .. ..	(c)	22.4	Great Britain and		
Netherlands .. ..	29.1	22.0	Ireland .. ..	24.6	15.8
Czechoslovakia .. ..	31.1	21.0	England and Wales.. ..	24.9	15.3
Finland .. ..	29.5	20.7(e)	Victoria .. ..	25.3	15.2
Tasmania .. ..	29.6	20.3	Germany .. ..	29.5	15.1
Northern Ireland .. ..	23.1	20.0	South Australia .. ..	27.1	14.5
Western Australia .. ..	28.9	18.9	Sweden .. ..	24.4	14.5

(a) Number of births per 1,000 of the mean population. (b) Figures for "existing birth-registration area." (c) Not available. (d) For 1928. (e) For 1931.

(ii) *Nuptial Birth Rates at Child-bearing Ages.* The wide discrepancies between the crude birth rates of the various countries are, to some extent, due to differences in sex and age constitution and in conjugal condition. If the birth rates be calculated per 1,000 women of child-bearing ages, the comparison gives more reliable results. A table of results so calculated appeared in Year Book No. 22, p. 941, and showed that Australia, with a rate of 198 nuptial births per 1,000 married women aged 15 to 49 years, was midway between the maximum and minimum of the countries for which these rates were obtained.

4. Masculinity of Births.—(i) *General.* The masculinity of births, i.e., the number of males per 100 females registered, varies considerably from State to State and from year to year. For 1932 the figures ranged from 102.12 in Tasmania to 107.26 in Western Australia. Greater variations are recorded among ex-nuptial births. The following table shows the results at intervals since 1901:—

MASCULINITY<sup>(a)</sup> OF BIRTHS REGISTERED, AUSTRALIA.

Particulars.	1901.	1911.	1921.	1928.	1929.	1930.	1931.	1932.
Total Births ..	104.11	104.73	105.86	106.51	105.99	105.39	106.15	105.59
Ex-nuptial Births ..	105.50	103.10	106.09	105.29	105.61	105.15	102.60	106.47

(a) Number of male per 100 female births.

(ii) *Masculinity of Nuptial and Ex-nuptial Births—Various Countries.* A table showing the masculinity of nuptial and ex-nuptial births for various countries appeared on p. 942 of Official Year Book No. 22.

5. *Ex-nuptial Births.*—(i) *General.* The number of ex-nuptial births reached its maximum, 7,438, in 1913, but it has since fallen considerably. On the average of the five years 1910–14, the number of ex-nuptial births in Australia was 7,171, while for the period 1928–32 it was only 5,899, a decline of 18.0 per cent., whereas the annual average total births for the same period declined by 3.8 per cent.; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.75 per cent. of all births.

The numbers of births and the rates from 1901 to 1932 are shown below :—

## EX-NUPTIAL BIRTHS AND BIRTH RATE.

Particulars.	1901.	1911.	1921.	1928.	1929.	1930.	1931.	1932.
Number .. ..	6,165	7,074	6,463	6,331	6,088	5,935	5,841	5,300
Percentage on Total Births .. ..	5.99	5.79	4.75	4.72	4.70	4.62	4.93	4.78

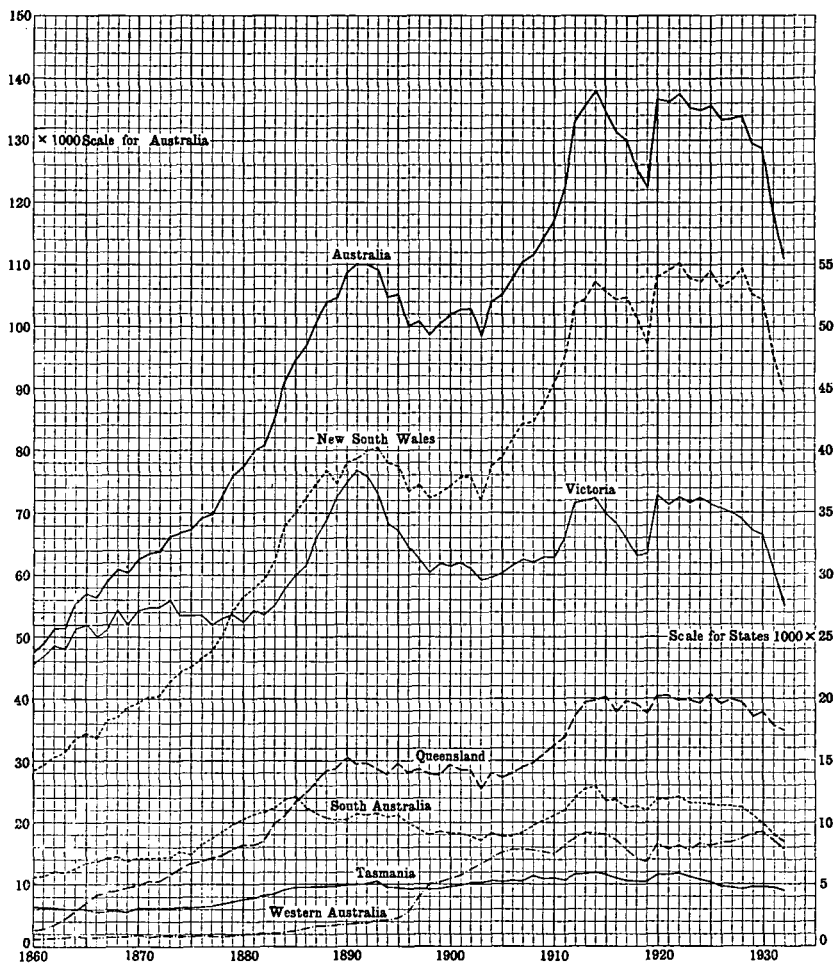
It is, of course, possible that the number of ex-nuptial births is somewhat understated, owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

The variations of the ex-nuptial birth rates as between the individual States and Territories for 1932 are as follow :—

## EX-NUPTIAL BIRTHS AND BIRTH RATE, 1932.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
Number ..	2,351	1,205	855	283	335	250	16	5	5,300
Percentage on Total Births	5.24	4.39	4.92	3.32	4.21	5.57	20.25	3.31	4.78

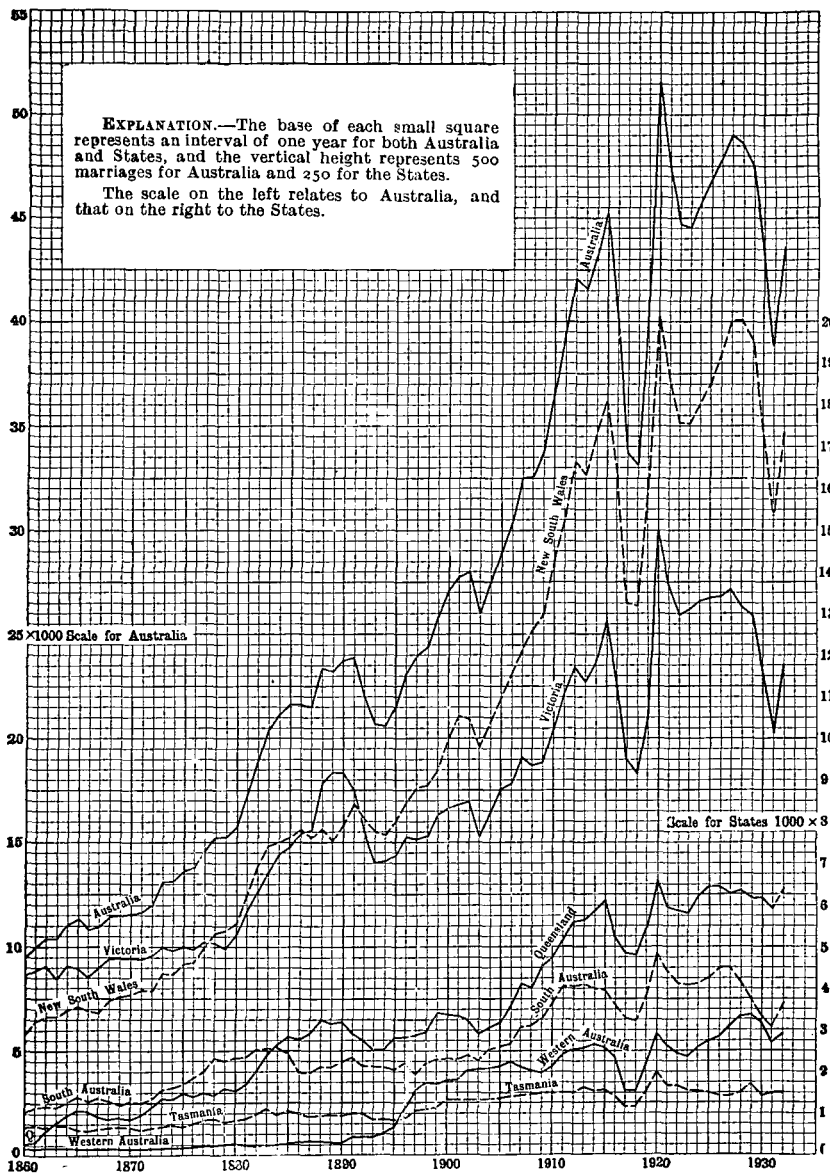
## BIRTHS—1860 TO 1932.



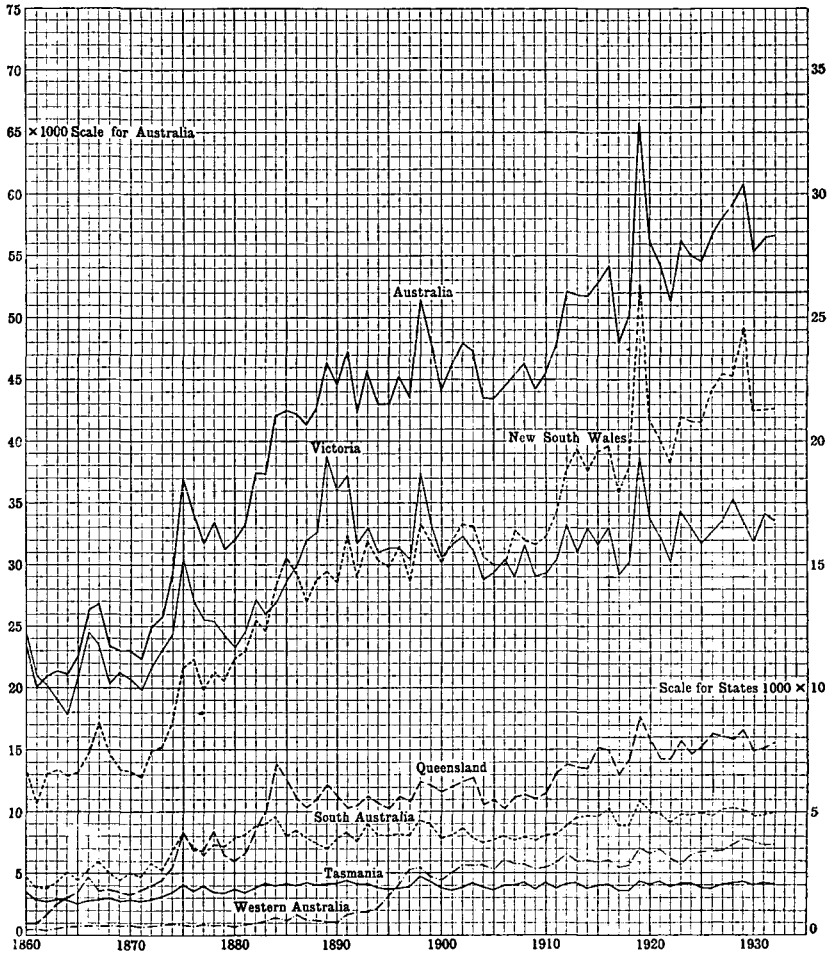
EXPLANATION.—The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 2,000 persons for Australia and 1,000 for the States.

The scale on the left relates to Australia and that on the right to the States.

## MARRIAGES, 1860 TO 1932.



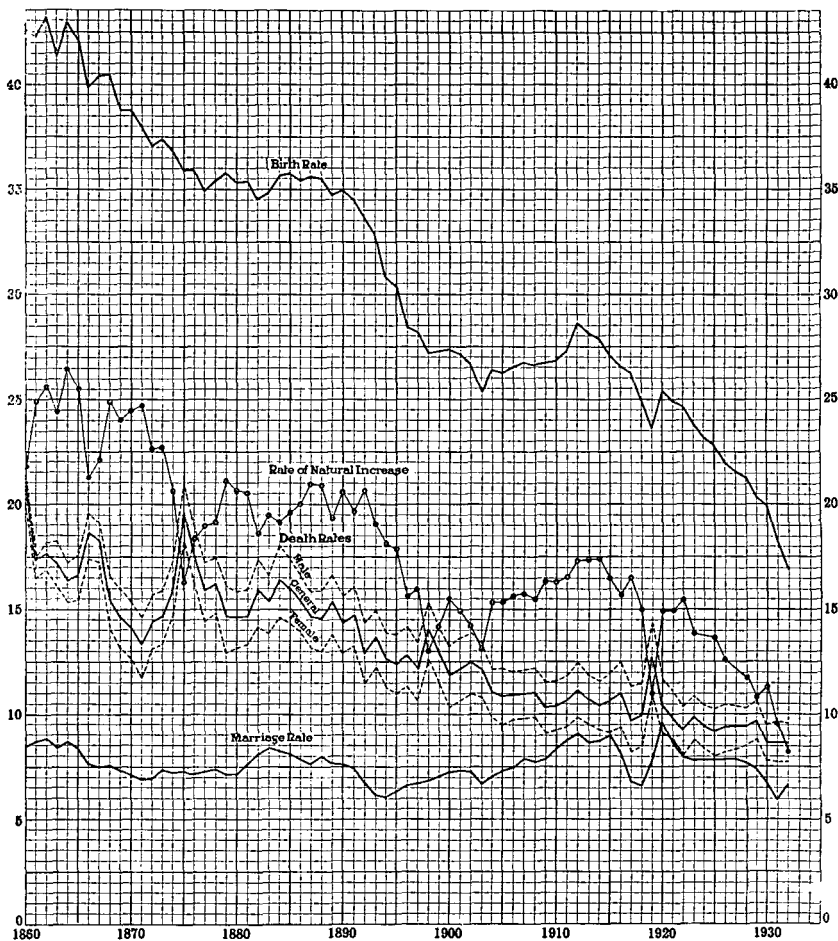
## DEATHS, 1860 TO 1932.



EXPLANATION.—The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 1,000 persons for Australia and 500 for the States.

The scale on the left relates to Australia, and that on the right to the States.

RATES—BIRTH NATURAL INCREASE, DEATH (MALE GENERAL AND FEMALE) AND MARRIAGE—AUSTRALIA 1860 TO 1932.

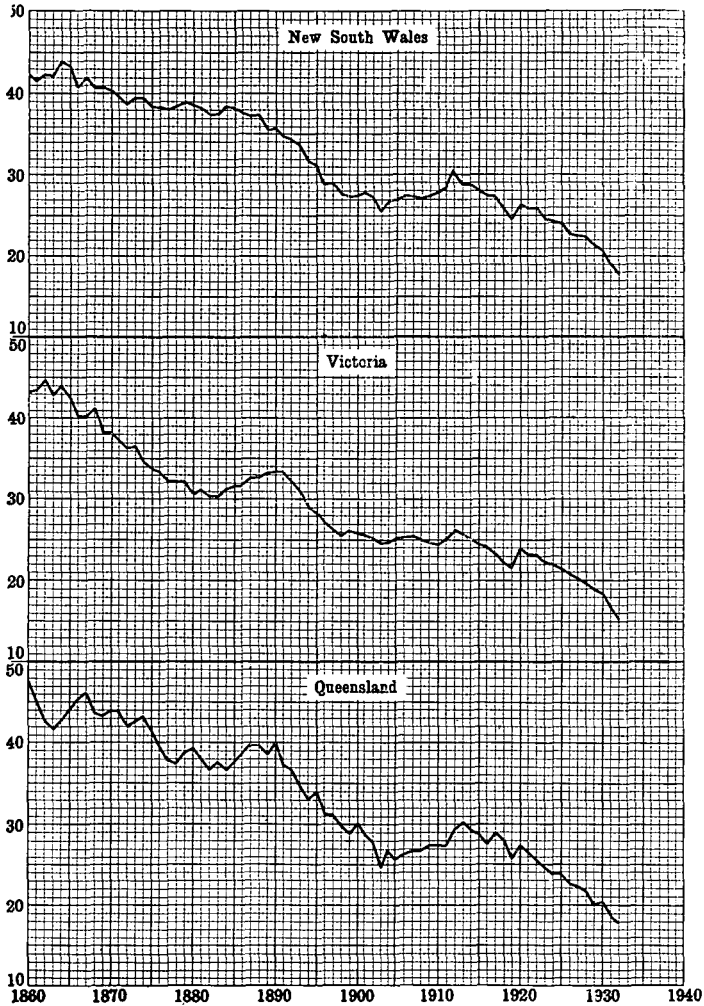


EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one-half per thousand of the population.

[NOTE].—Necessary amendments for later years based on results of Census of 1933 will be included in next issue of the Official Year Book.



## BIRTH RATES—STATES, 1860-1932.

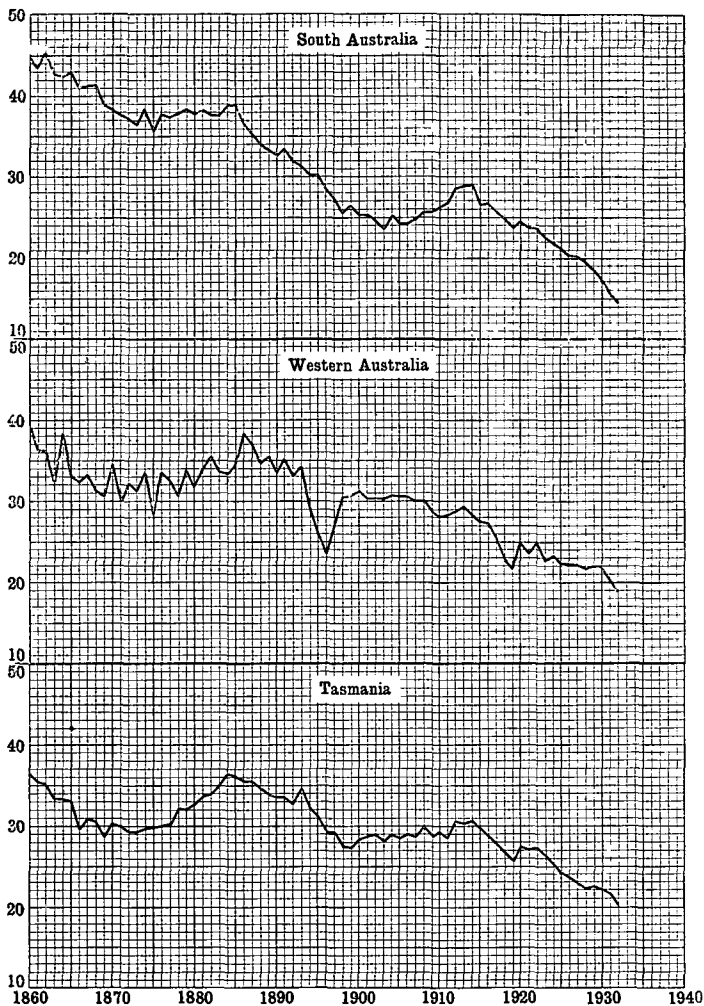


## STATE BIRTH-RATE GRAPHS.

EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being twenty per thousand of the population.

[See also Note on page 796.]

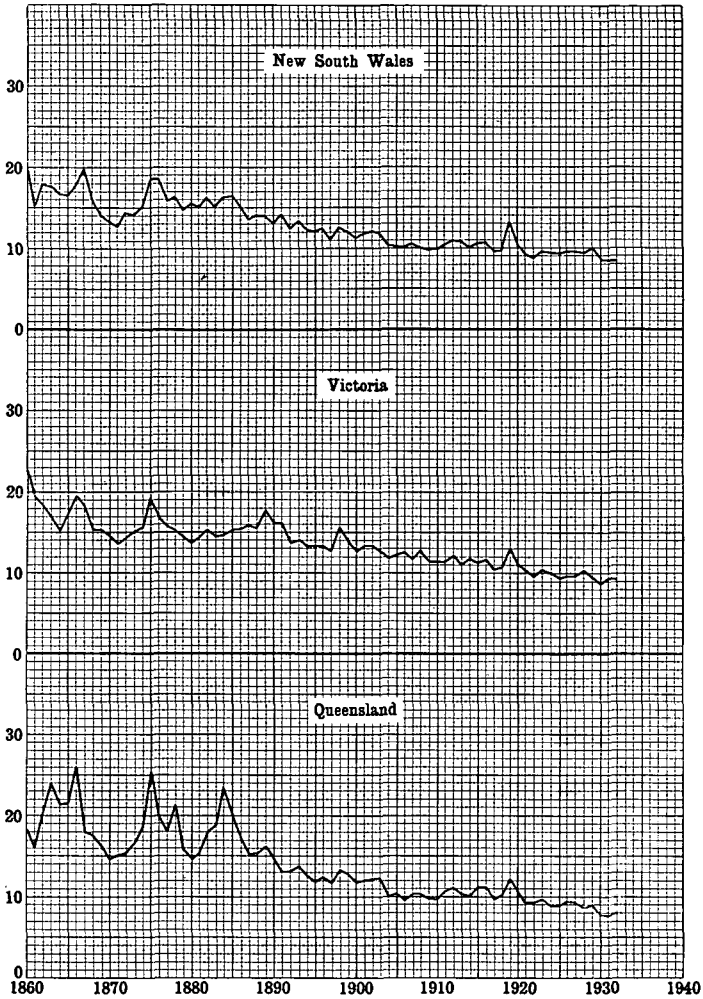
## BIRTH RATES—STATES, 1860-1932—continued.



STATE BIRTH-RATE GRAPHS.

EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being twenty per thousand of the population.

## DEATH RATES—STATES, 1860-1932.

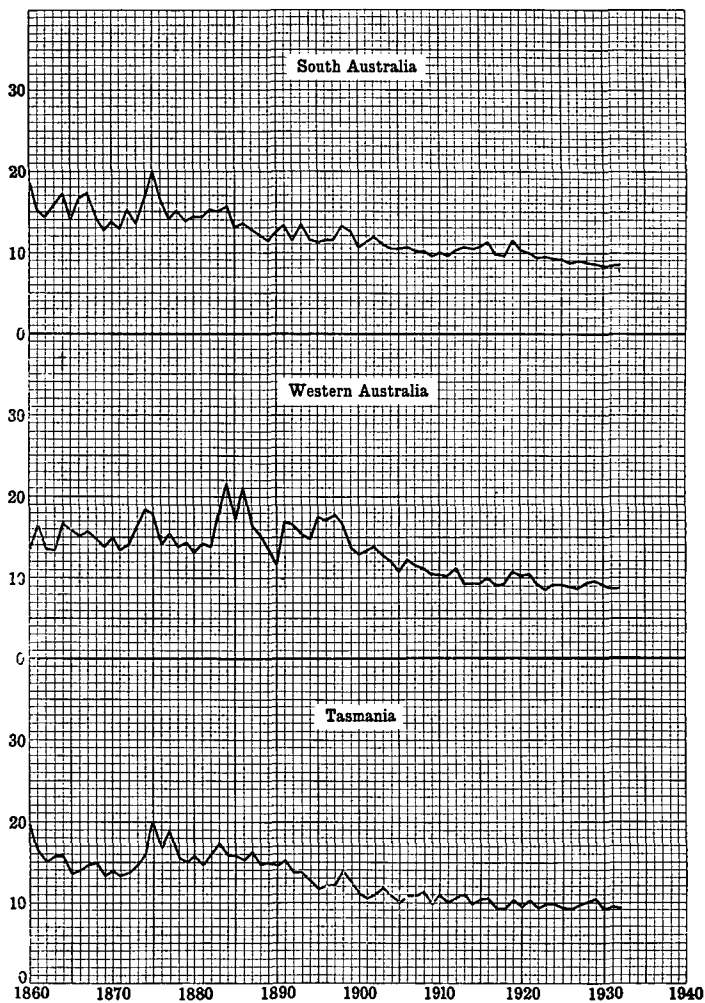


STATE DEATH-RATE GRAPHS.

EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each State is shown by a thickened line.

[See also Note on page 796.]

## DEATH RATES—STATES, 1860-1932—continued.



STATE DEATH-RATE GRAPHS.

EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each State is shown by a thickened line.

(ii) *Rate of Ex-nuptiality.* A further comparison is obtained by calculating the number of ex-nuptial births per thousand of the single and widowed female population between the ages of 15 and 45. The number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows:—Years 1880–82, 14.49; years 1890–92, 15.93; years 1900–02, 13.30; years 1910–12, 12.53; and years 1920–22, 10.50. The estimated number for the years 1930–32 was 7.87. The comparative results for various countries given on p. 944 of Official Year Book No. 22 were taken from the *Annuaire International de Statistique*, Vols. II. and V., and showed that ex-nuptial births varied from 38 per 1,000 unmarried women aged 15 to 49 years in Hungary to 4 in Ireland and Bulgaria. The rate for Australia was 12 per thousand.

(iii) *Comparison of Rates.* The following table showing the relative proportions of ex-nuptial and nuptial births to the total population discloses a much greater proportional reduction in the ex-nuptial birth rate than in the nuptial rate.

**CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES.(a)—AUSTRALIA.**

Rates.	1901.	1911.	1921.	1928.	1929.	1930.	1931.	1932.
Ex-nuptial ..	1.62	1.57	1.18	1.01	0.95	0.93	0.90	0.81
Nuptial ..	25.52	25.64	23.77	20.32	19.36	19.00	17.33	16.13
Total ..	27.14	27.21	24.95	21.33	20.31	19.93	18.23	16.94

(a) Number of births per 1,000 of mean population.

6. *Legitimations.*—In the several States Acts have been passed to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of their intentions, born before or after the passing thereof, is deemed to be legitimized from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. (During 1932, 792 children were legitimized in Australia.)

7. *Multiple Births.*—Among the total number of 110,933 births registered in Australia in 1932, there were 108,742 single births, 2,177 twins, 14 triplets. The number of cases of twins was 1,102, there being 27 stillbirths, and there were 5 cases of triplets, one triplet having been stillborn. The total number of mothers was, therefore, 109,849; the proportion of mothers of twins being one in every 100, of mothers of triplets one in every 21,970, and of mothers of all multiple births one in every 99 mothers. Multiple births occurred in 1.01 per cent. of confinements.

The proportion of multiple births to total births does not vary greatly from year to year and exhibits no constant tendency towards increase or decrease.

**MULTIPLE BIRTHS—AUSTRALIA.**

Heading.	1911.	1921.	1928.	1929.	1930.	1931.	1932.
Total Multiple Births ..	1,236	1,465	1,423	1,320	1,439	1,271	1,107
Percentage on Total Mothers	1.02	1.09	1.07	1.03	1.13	1.08	1.01
Number of Mothers to each Multiple Birth ..	98	92	93	97	88	92	99

8. Ages of Parents.—The relative ages of the parents of children registered in 1932 have been tabulated separately for male and female births, twins and triplets being distinguished from single births. For total births and for multiple births the relative single ages of parents are shown in the Bulletin of "Australian Demography," No. 50, published by this Bureau. In the present work the exigencies of space allow the insertion of a table showing the relative ages of parents of all births in groups of five years only.

## AGES OF PARENTS—ALL BIRTHS.—AUSTRALIA, 1932.

Ages of Fathers and Type of Birth.	Total Births.	Ages of Mothers.								
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.	Un-specified.
Under 20 { Single Twins	815 5	2 ..	596 3	209 2	7 ..	1 ..	.. ..	.. ..	.. ..	.. ..
20 to 24 { Single Twins Triplets	13,506 105 ..	5 .. ..	3,523 14 ..	8,505 67 ..	1,339 23 ..	117 .. ..	15 1 ..	2 .. ..	.. .. ..	.. .. ..
25 to 29 { Single Twins Triplets	27,608 203 1	.. .. ..	1,484 7 ..	11,834 64 1	12,047 96 ..	2,001 30 ..	218 6 ..	22 .. ..	.. .. ..	2 .. ..
30 to 34 { Single Twins Triplets	25,545 275 ..	.. .. ..	388 3 ..	4,006 43 ..	10,494 106 ..	9,019 99 ..	1,506 21 ..	127 3 ..	3 .. ..	2 .. ..
35 to 39 { Single Twins Triplets	17,505 234 3	.. .. ..	90 .. ..	1,018 4 ..	3,493 34 ..	6,737 106 2	5,529 84 1	619 6 ..	19 .. ..	.. .. ..
40 to 44 { Single Twins Triplets	10,989 142 ..	1 .. ..	38 .. ..	328 1 ..	1,106 8 ..	2,846 39 ..	4,355 72 ..	2,230 22 ..	84 .. ..	1 .. ..
45 to 49 { Single Twins Triplets	4,914 60 ..	.. .. ..	9 .. ..	135 .. ..	378 6 ..	848 9 ..	1,740 28 ..	1,581 16 ..	223 .. ..	.. 1 ..
50 to 54 { Single Twins Triplets	1,772 20 ..	.. .. ..	14 .. ..	41 .. ..	95 1 ..	295 3 ..	545 10 ..	640 5 ..	142 .. ..	.. 1 ..
55 to 59 { Single Twins	564 9	.. ..	8 ..	14 1	39 ..	81 1	161 2	206 5	55 ..	.. ..
60 to 64 { Single Twins	270 ..	.. ..	1 ..	10 ..	15 ..	35 ..	49 ..	84 ..	16 ..	.. ..
65 and upwards { Single Twins	106 2	.. ..	1 ..	3 1	9 ..	15 ..	38 1	37 ..	3 ..	.. ..
Un-specified { Single Twins	4 ..	.. ..	.. ..	1 ..	1 ..	1 ..	1 ..	.. ..	.. ..	.. ..
Mothers of Nuptial children { Single Twins Triplets Total	103,538 1,055 4 104,597	8 .. .. 8	6,152 27 .. 6,179	26,104 183 1 26,288	29,023 274 .. 29,297	21,996 287 2 22,285	14,157 225 1 14,383	5,548 57 .. 5,605	545 .. .. 545	5 2 .. 7
Mothers of ex-nuptial children { Single Twins Triplets Total	5,204 47 1 5,252	41 .. .. 41	1,650 7 .. 1,657	1,719 16 .. 1,735	775 6 1 782	501 10 .. 511	339 5 .. 344	166 2 .. 168	11 .. .. 11	2 1 .. 3
Total Mothers { Single Twins Triplets	108,742 1,102 5	49 .. ..	7,802 34 ..	27,823 199 1	29,798 280 1	22,497 297 2	14,496 230 1	5,714 59 ..	556 .. ..	7 3 ..
Total ..	109,849	49	7,836	28,023	30,079	22,796	14,727	5,773	556	10

9. Birthplaces of Parents.—The birthplaces of the parents of children whose births were registered during the year 1932 will be found in the Bulletin of "Australian Demography," published by this Bureau. A summary of the results of the tabulation with the addition of the corresponding figures for 1911 follows.

## BIRTHPLACES OF PARENTS.—AUSTRALIA.

Birthplaces.	Fathers.		Mothers of Nuptial Children.		Mothers of Ex-nuptial Children.	
	1921.	1932.	1921.	1932.	1921.	1932.
<b>AUSTRALASIA—</b>						
Australia .. ..	94,834	88,084	102,073	91,660	6,570	4,828
New Zealand .. ..	1,257	732	1,201	562	68	33
<b>EUROPE—</b>						
England and Wales .. ..	9,849	9,300	6,067	7,604	210	254
Scotland .. ..	2,289	2,477	1,486	2,126	46	79
Ireland .. ..	2,138	1,026	1,374	676	46	19
Other British Possessions .. ..	49	160	20	110	1	2
Western Europe .. ..	607	261	165	108	9	..
Central Europe .. ..	1,185	357	606	215	8	3
Southern Europe .. ..	360	1,136	203	831	6	8
Eastern Europe .. ..	168	154	81	79	..	2
<b>ASIA—</b>						
British Possessions .. ..	217	183	114	105	2	2
Foreign Countries .. ..	317	192	139	103	3	2
<b>AFRICA—</b>						
British Possessions .. ..	111	188	116	201	2	4
Foreign Countries .. ..	11	15	13	13	..	..
<b>AMERICA—</b>						
Canada .. ..	59	97	34	42	3	..
Other British Possessions .. ..	8	5	5	3	..	1
United States of America .. ..	182	133	87	85	3	2
Other Foreign Countries .. ..	70	24	19	24	1	..
<b>POLYNESIA—</b>						
British .. ..	30	24	21	19	1	1
Foreign .. ..	39	18	13	18	6	5
Indefinite .. ..	159	31	102	13	33	7
<b>Total .. ..</b>	<b>113,939</b>	<b>104,597</b>	<b>113,939</b>	<b>104,597</b>	<b>7,018</b>	<b>5,252</b>

10. Occupations of Fathers.—A summary of the main groups of occupations of the fathers of all nuptial children whose births were registered in 1921, 1931, and 1932 and the percentage of each class on the total are given in the following table:—

## OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.—AUSTRALIA.

Occupation Class.	Number of Fathers.			Percentage on Total.		
	1921.	1931.	1932.	1921.	1931.	1932.
Professional .. ..	6,204	5,991	5,909	4.84	5.37	5.65
Domestic .. ..	2,319	2,146	1,322	1.81	1.93	1.74
Commercial .. ..	18,298	16,030	10,723	14.26	14.38	10.25
Transport and Communication .. ..	15,351	12,302	10,933	11.96	11.04	10.45
Industrial .. ..	53,567	49,902	18,301	41.74	44.76	17.50
Agricultural, Pastoral, Mining, etc. .. ..	32,405	24,760	23,456	25.25	22.21	22.43
Indefinite .. ..	182	349	33,453 <sup>a</sup>	0.14	0.31	31.98 <sup>a</sup>
<b>Total .. ..</b>	<b>128,326</b>	<b>111,480</b>	<b>104,597</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Includes 33,175 (31.72 per cent.) clerks, labourers, etc., where industry was not given, which were formerly included under "Commercial" or "Industrial".

The outstanding feature of the above table is the rapid decline of the agricultural etc., class as disclosed in both sections of the table. The domestic class also shows a smaller percentage in 1932 than in 1921. On the other hand the industrial class has increased rapidly, while the remaining groups have also grown, but at a slower rate. These results, however, merely reflect the changes which have taken place in the occupations of the people. The figures for 1932 are not comparable in all respects with those for previous years as is indicated in the footnote to the preceding table.

11. *Mother's Age, Duration of Marriage, and Issue.*—(i) *General.* The total number of nuptial confinements in 1932 was 104,597, viz., 103,538 single births, 1,055 cases of twins, and 4 cases of triplets. Ex-nuptial children—previous issue by the same father—are included as previous issue, but children by former marriages, and stillborn children are excluded. The tables cannot be given *in extenso*, but the following are their most salient features. More complete tabulations are shown in "Australian Demography," Bulletin No. 50 issued by this Bureau.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that the duration of marriage of mothers of nuptial children ranged from less than one year up to between 32 and 33 years, and that the average family increased fairly regularly with the duration of marriage. The average number of children of all marriages was 2.95, the corresponding figures for 1931 being 2.95; for 1930, 2.92; for 1929, 2.96; for 1928, 2.99.

#### DURATION OF MARRIAGE AND ISSUE OF MOTHERS.—AUSTRALIA, 1932.

Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.	Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.
Years.				Years.			
0-1 ..	16,736	16,840	1.01	18-19 ..	1,097	7,950	7.25
1-2 ..	10,500	13,715	1.31	19-20 ..	911	6,909	7.58
2-3 ..	10,615	18,682	1.76	20-21 ..	705	5,622	7.97
3-4 ..	9,360	19,627	2.10	21-22 ..	576	4,804	8.34
4-5 ..	8,316	20,327	2.44	22-23 ..	406	3,637	8.96
5-6 ..	7,126	19,755	2.77	23-24 ..	276	2,565	9.29
6-7 ..	5,960	18,470	3.10	24-25 ..	180	1,766	9.81
7-8 ..	5,211	17,712	3.40	25-26 ..	122	1,253	10.27
8-9 ..	4,421	16,421	3.71	26-27 ..	68	709	10.43
9-10 ..	3,825	15,586	4.07	27-28 ..	35	395	11.29
10-11 ..	3,572	15,648	4.38	28-29 ..	16	154	9.63
11-12 ..	3,402	15,802	4.64	29-30 ..	11	122	11.09
12-13 ..	2,974	15,103	5.08	30-31 ..	4	45	11.25
13-14 ..	2,166	11,744	5.42	31-32 ..	2	10	5.00
14-15 ..	1,689	9,672	5.73	32-33 ..	1	11	11.00
15-16 ..	1,518	9,275	6.11				
16-17 ..	1,458	9,361	6.42				
17-18 ..	1,338	9,016	6.74				
				Total ..	104,597	308,708	2.95

(iii) *Ages of Mothers and Issue.* The following table shows the average number of children borne by mothers of different ages. In the younger ages there is, naturally, little difference in the average number of children to each mother, but with the increase of the age of the mother the number of issue has fallen in comparison with past years until for mothers 45 years and over the average number of children borne has fallen from 8.52 in 1911 to 7.47 in 1932—a decline of 12.55 per cent. in eleven years. During the same period the average issue of mothers of all ages has fallen by 13.22 per cent.—from 3.34 in 1911 to 2.95 in 1932.



## AGES AND ISSUE OF MOTHERS.—AUSTRALIA, 1932.

Ages of Mothers.	Average Number of Children.				Ages of Mothers.	Average Number of Children.			
	1911.	1921.	1931.	1932.		1911.	1921.	1931.	1932.
Under 20 years ..	1.18	1.16	1.21	1.20	40-44 years ..	6.97	6.27	6.00	6.14
20-24 years ..	1.77	1.64	1.74	1.75	45 years and over ..	8.52	8.04	7.48	7.47
25-29 ..	2.64	2.44	2.46	2.48					
30-34 ..	3.82	3.57	3.44	3.44					
35-39 ..	5.28	4.95	4.71	4.68	All ages ..	3.34	3.08	2.95	2.95

(iv) *Previous Issue of Mothers, Various Ages.* The previous issue, according to the age of the mother, is given in the following table.

## PREVIOUS ISSUE OF MOTHERS OF VARIOUS AGES.—AUSTRALIA, 1932.

Previous Issue.	Mothers' Ages.							
	Under 20 Years.	20-24 Years.	25-29 Years.	30-34 Years.	35-39 Years.	40-44 Years.	45 Years and Over.	Total.
0	5,063	13,120	8,627	3,460	1,270	340	37	31,917
1	991	8,259	8,696	5,125	1,915	418	26	25,430
2	125	3,513	5,788	4,415	2,310	541	25	16,717
3	8	1,093	3,377	3,353	2,124	633	33	10,621
4	..	246	1,718	2,432	1,826	649	37	6,908
5	..	49	723	1,710	1,544	621	60	4,707
6	..	6	278	956	1,221	532	59	3,052
7	..	2	70	470	925	510	52	2,029
8	..	..	10	238	586	447	59	1,340
9	..	..	5	86	318	362	50	821
10	..	..	4	28	196	233	30	491
11	..	..	..	7	83	162	36	288
12	..	..	1	5	38	90	25	159
13	..	..	..	..	16	37	14	67
14	..	..	..	..	7	14	5	26
15	..	..	..	..	4	8	4	16
16	..	..	..	..	..	5	..	5
17	..	..	..	..	..	2	..	2
18	..	..	..	..	..	1	..	1
Total Mothers	6,187	26,288	29,297	22,285	14,383	5,605	552	104,597

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of mothers of twins and triplets show that 229 mothers had twins at their first confinement; 246 at their second; 186 at their third; 137 at their fourth; 90 at their fifth; 71 at their sixth; 38 at their seventh; 29 at their eighth; 18 at their ninth; 14 at their tenth; and 1 at her eleventh.

Of the 5 cases of triplets registered during 1932, 2 were second and 2 were fifth confinements. The fifth case of triplets was ex-nuptial.

12. *Interval between Marriage and First Birth.*—(i) *Interval.* The following table shows the interval between marriage and first birth for the years 1911, 1921, 1931 and 1932 respectively. Twins, triplets and quadruplets are included, the eldest born only being enumerated :—

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH.—AUSTRALIA.

Interval.	Number of First Children.				Percentage on Total.			
	1911.	1921.	1931.	1932.	1911.	1921.	1931.	1932.
Under 1 month ..	562	437	395	338	1.81	1.07	1.15	1.06
1 month ..	608	538	523	455	1.96	1.31	1.52	1.43
2 months ..	817	735	750	654	2.63	1.79	2.17	2.05
3 „ ..	1,125	1,017	1,135	1,037	3.63	2.48	3.29	3.25
4 „ ..	1,299	1,336	1,409	1,443	4.19	3.26	4.09	4.52
5 „ ..	1,651	1,781	1,968	1,993	5.33	4.34	5.71	6.24
6 „ ..	2,089	2,420	2,517	2,717	6.74	5.90	7.30	8.51
7 „ ..	1,602	2,231	2,022	1,979	5.17	5.44	5.86	6.20
8 „ ..	1,529	1,950	1,139	1,136	4.93	4.75	3.30	3.56
9 „ ..	3,361	4,222	2,272	2,015	10.84	10.29	6.59	6.31
10 „ ..	2,623	3,630	1,859	1,574	8.46	8.85	5.39	4.93
11 „ ..	1,893	2,645	1,636	1,303	6.11	6.45	4.74	4.08
Total under 1 year	19,159	22,942	17,625	16,644	61.80	55.93	51.11	52.14
1-2 years ..	7,400	11,149	8,888	7,406	23.87	27.18	25.77	23.20
2-3 „ ..	2,101	2,923	3,441	3,289	6.78	7.13	9.98	10.30
3-4 „ ..	908	1,413	1,823	1,783	2.93	3.45	5.29	5.59
4-5 „ ..	471	837	967	1,007	1.52	2.04	2.80	3.16
5-9 „ ..	762	1,473	1,424	1,506	2.46	3.59	4.13	4.72
10-14 „ ..	159	223	262	240	0.51	0.54	0.76	0.75
15-19 „ ..	31	54	50	34	0.10	0.13	0.14	0.11
20 and over ..	9	4	6	8	0.03	0.01	0.02	0.03
Total ..	31,000	41,018	34,486	31,917	100.00	100.00	100.00	100.00

The masculinity of first births was 106.21 as compared with 105.59 for total births.

(ii) *Ages of Mothers and Interval.* The previous issue of mothers of ex-nuptial children is not recorded, but for the purposes of the following table all ex-nuptial births have been assumed to be first births. The table shows in a condensed form the ages of mothers in cases of ex-nuptial first births, of nuptial first births occurring less than nine months after marriage, and of nuptial first births occurring nine months or more after marriage. A comparison of the combined total of the first two columns with the total of nuptial children born nine months or more after marriage shows that for all ages the ratio was more than 5 to 6. At all ages up to and including 21, however, there was a great preponderance of ex-nuptial births and of births following on ante-nuptial conception. It must, of course, be understood that a certain number of premature births is necessarily included among the births which occurred less than nine months after marriage, but information in connexion therewith is not available, and the figures in the table must be accepted with this reservation. The tabulation in single ages of mothers appears in Demography Bulletin No. 50, published by this Bureau.

The last four columns show the percentage of births following ante-nuptial conception on the total nuptial first births and ex-nuptial births. These columns disclose the remarkable fact that the percentage of births due to ante-nuptial conception diminishes rapidly from 80 per cent. among mothers under 20 years of age to a minimum among mothers 30 to 34 years and then rises rapidly to mothers 45 years and over. In

1931 the minimum was among mothers 25 to 29 years. There was a very slight increase for the group 30-34 years and a rapid rise thereafter. In 1932 the group 45 years and over was much lower than in previous years.

AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, ETC.—AUSTRALIA.

Age of Mother at Birth of Child.	1932.				Percentage Column III. on Column IV.			
	Ex-nuptial Births.	Nuptial Births less than nine months after Marriage.	Total of two preceding columns.	Nuptial First Births and Ex-nuptial Births.	1911.	1921.	1931.	1932.
	I.	II.	III.	IV.				
Under 20 years	1,698	3,927	5,625	6,761	83.12	79.23	82.60	83.20
20 to 24 years	1,735	5,724	7,459	14,855	53.91	45.82	48.43	50.21
25 to 29 "	782	1,503	2,285	9,409	32.50	25.60	21.89	24.29
30 to 34 "	511	401	912	3,971	28.06	23.05	22.20	22.97
35 to 39 "	344	153	497	1,614	32.64	29.43	30.86	30.79
40 to 44 "	168	40	208	508	36.56	35.31	38.95	40.95
45 and over ..	11	3	14	46	60.47	54.84	48.89	30.43
Total ..	5,249	11,751	17,000	37,164	48.14	39.74	43.80	45.74

13. Interval between Birth and Registration of Birth.—Information was obtained for the years 1911 to 1921 regarding the period which elapsed between birth and registration. A detailed table giving the results for 1921 is contained in Demography Bulletin No. 39, issued by this Bureau. The law relating to maternity allowances has tended to accelerate the registration of births; and during the year under review it was found that approximately 35 per cent. were registered in the first week.

Since the granting of the maternity allowance, the weighted average interval between the dates of birth and registration has been found to be about 13 days for all children.

## § 2. Marriages.

1. Marriages, 1932.—The number of marriages registered in Australia during 1932 was 43,634, giving a rate of 6.66 per 1,000 of the mean population for the year. The number of marriages in each State, together with the corresponding crude marriage rate for 1932 and several previous years are given hereunder :—

### MARRIAGES.

—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Australia.
No. 1932 ..	17,362	11,744	6,415	3,636	2,904	1,508	22	43	43,634
Crude Rate—(a)									
1901 ..	7.73	6.99	6.66	6.45	9.68	7.76	1.05	..	7.32
1911 ..	9.19	8.40	8.41	9.80	8.44	7.77	3.02	2.81	8.79
1921 ..	8.78	8.90	7.82	8.82	7.96	7.82	3.84	0.81	8.59
1928 ..	8.28	7.52	6.95	7.18	8.39	7.09	5.47	3.60	7.73
1929 ..	7.93	7.31	6.67	6.42	8.18	8.01	4.79	5.13	6.71
1930 ..	6.99	6.52	6.59	5.70	7.66	6.70	6.67	3.87	6.71
1931 ..	6.13	5.67	6.21	5.26	6.51	6.82	5.44	4.18	5.98
1932 ..	6.86	6.50	6.61	6.20	6.87	6.80	4.88	4.93	6.66

(a) Number of marriages (not persons married) per 1,000 of mean annual population.

As in some international tabulations the marriage rates are calculated per 1,000 of the unmarried population of 15 years and over, the corresponding rates have been worked out for Australia for the last four Census periods for which the particulars are available. The figures comprise in each case the Census year with the year immediately preceding and the year immediately following, and are as follow:—Years 1880–82, 48.98; years 1890–92, 45.74; years 1900–02, 42.14; years 1910–12, 50.44; and years 1920–22, 56.02. For years 1930–32 the figure is estimated at 39.21. These rates refer, of course, to persons married and not to marriages, as is the case in the preceding table.

2. Marriage Rates in Various Countries.—The following table shows the marriage rate for Australia in comparison with the rates for various other countries:—

CRUDE MARRIAGE RATES (a).—VARIOUS COUNTRIES.

Country.	1908 to 1913.	1932.	Country.	1908 to 1913.	1932.
Soviet Republics ..	8.6	10.6(g)	New South Wales ..	8.8	6.9
Rumania ..	9.5	9.2(f)	Argentina ..	6.8	6.8(f)
Czechoslovakia ..	7.7	8.7(f)	Scotland ..	6.7	6.8
United States (b) ..	(e)	8.6(f)	New Zealand ..	8.5	6.8
Union of South Africa(c)	(e)	8.6(f)	Tasmania ..	7.9	6.8
Poland ..	7.0	8.3	Portugal ..	6.9	6.8
Belgium ..	7.9	8.1(f)	Sweden ..	6.0	6.7
Denmark ..	7.3	8.1(f)	Australia ..	<b>8.4</b>	<b>6.7</b>
Germany ..	7.8	7.9	Queensland..	8.2	6.6
Switzerland ..	7.3	7.8	Spain ..	7.0	6.6
Japan ..	9.3	7.6(f)	Victoria ..	8.0	6.5
England and Wales ..	7.6	7.6	Italy ..	7.7	6.4
France ..	7.9	7.5	Norway ..	6.2	6.2
Great Britain and			South Australia ..	9.1	6.2
Ireland ..	7.3	7.5	Canada ..	(e)	6.0
Netherlands ..	7.5	6.9	Northern Ireland ..	5.2	5.9(f)
Finland ..	6.1	6.9(f)	Ceylon ..	5.2	5.1
Western Australia ..	8.1	6.9	Irish Free State ..	5.2	4.4

(a) Number of marriages per 1,000 of mean population.  
population only.

(e) Not available.

(f) For 1931.

(b) Registration area.

(g) For 1929.

(c) White

3. Ages and Conjugal Condition at Marriage.—(i) *General.* The ages at marriage of bridegrooms and brides will be found in "Australian Demography," Bulletin No. 50, published by this Bureau. A summary in age groups is given in the table hereunder, which also shows the previous conjugal condition of the contracting parties. There were 2,721 males who were less than twenty-one years of age married during 1932, while the corresponding number of females was 10,724. At the other extreme there were 63 men of sixty-five years and upwards who described themselves as bachelors, and twelve spinsters of corresponding age.

The information regarding the percentage distribution of bridegrooms and brides is shown in the last three lines of the table for the years 1911, 1921, 1931 and 1932.

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1932.

Ages at Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20..	1,359	..	..	1,359	7,639	5	2	7,646
20-24 years	14,952	22	7	14,081	18,884	46	38	18,968
25-29 "	14,047	134	69	14,850	9,570	151	172	9,893
30-34 "	6,015	290	163	6,468	2,867	207	248	3,322
35-39 "	2,223	350	200	2,773	1,184	264	149	1,597
40-44 "	988	379	184	1,551	558	269	117	944
45-49 "	530	349	97	976	267	227	65	559
50-54 "	247	282	53	582	112	169	25	306
55-59 "	117	239	23	379	54	123	7	184
60-64 "	59	187	15	261	28	77	6	111
65 years and over ..	63	277	14	354	12	89	3	104
Total ..	40,300	2,509	825	43,634	41,175	1,627	832	43,634
Percentage on Total								
1911 ..	93.70	5.84	0.46	100.00	94.60	4.68	0.72	100.00
1921 ..	92.43	6.37	1.20	100.00	92.85	5.91	1.24	100.00
1931 ..	92.04	6.09	1.87	100.00	93.89	4.02	2.09	100.00
1932 ..	92.36	5.75	1.89	100.00	94.36	3.73	1.91	100.00

(ii) *Relative Ages, Bridegrooms and Brides.* The relative ages of bridegrooms and brides are shown for single years in "Australian Demography," Bulletin No. 50; a condensation into age-groups of five years is given below:—

RELATIVE AGES OF PERSONS MARRIED.—AUSTRALIA, 1932.

Ages.	Total Bridegrooms.	Ages of Brides.								Not stated.	
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.		
Ages of Bridegrooms.	Under 20 years..	1,359	7	995	343	11	3	..	..	..	..
	20 to 24 "	14,081	13	4,475	8,144	1,314	112	18	4	1	..
	25 to 29 "	14,850	5	1,604	7,503	4,929	668	118	20	3	..
	30 to 34 "	6,468	..	390	2,158	2,358	1,165	297	75	25	..
	35 to 39 "	2,773	..	99	543	802	692	430	150	57	..
	40 to 44 "	1,551	2	30	181	285	391	315	222	125	..
	45 to 49 "	976	..	14	69	115	171	219	198	190	..
	50 to 54 "	582	..	6	18	50	66	101	134	207	..
	55 to 59 "	379	..	4	7	15	24	60	66	203	..
	60 to 64 "	261	..	2	..	10	18	29	42	160	..
65 years and over	354	..	..	2	4	12	10	33	293	..	
Not stated ..	..	..	..	..	..	..	..	..	..	..	
Total Brides ..	43,634	27	7,619	18,968	9,893	3,322	1,597	944	1,264	..	

(iii) *Average Ages, Bridegrooms and Brides.* The age at marriage of brides has declined slightly during recent years to an average of about 25½ years. The figures for the five years are:—1928, 25.67; 1929, 25.62; 1930, 25.49; 1931, 25.30; and 1932, 25.41. For the five years 1907-11 the average age was 25.70 years compared with 25.92 years for the five years 1912-16, 26.07 years for the five years 1917-21, and 25.76 years for the five years 1925-29. The average age of bridegrooms in 1928 was 29.18 years; in 1929, 29.10; in 1930, 29.20; in 1931, 28.99 years; and in 1932, 29.06 years. It follows, therefore, that brides are, generally speaking, three and one-half years younger than the bridegrooms.

4. Previous Conjugal Condition.—The number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1932 has already been given. The following table shows the conjugal condition of the contracting parties:—

**PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1932.**

Conjugal Condition.		Total Bridegrooms.	Brides.		
			Spinsters.	Widows.	Divorced.
Bridegrooms	{ Bachelors ..	40,300	38,858	881	561
	{ Widowers ..	2,509	1,673	654	182
	{ Divorced ..	825	644	92	89
Total Brides ..		43,634	41,175	1,627	832

5. Birthplaces of Persons Married.—The following table shows the birthplaces of persons who were married in 1911, 1921 and 1932. In "Australian Demography," Bulletin No. 50, the relative birthplaces of bridegrooms and brides married in 1932 will be found tabulated in full detail.

**BIRTHPLACES OF PERSONS MARRIED.—AUSTRALIA.**

Birthplace.	Bridegrooms.			Brides.		
	1911.	1921.	1932.	1911.	1921.	1932.
<b>AUSTRALASIA—</b>						
Australia .. ..	31,298	37,925	36,229	33,922	40,137	38,825
New Zealand .. ..	450	405	412	303	280	360
<b>EUROPE—</b>						
England and Wales .. ..	3,023	3,590	4,227	1,675	2,488	2,878
Scotland .. ..	739	867	1,152	460	656	787
Ireland .. ..	494	470	408	363	281	203
Other British Possessions .. ..	16	30	46	9	14	22
Western Europe .. ..	205	175	127	45	45	29
Central Europe .. ..	311	149	182	92	61	89
Southern Europe .. ..	62	139	343	21	56	157
Eastern Europe .. ..	47	83	85	18	21	37
<b>ASIA—</b>						
British Possessions .. ..	59	59	96	27	24	40
Foreign Countries .. ..	83	57	52	16	12	27
<b>AFRICA—</b>						
British Possessions .. ..	42	58	98	20	39	70
Foreign Countries .. ..	1	3	6	2	5	5
<b>AMERICA—</b>						
Canada .. ..	44	45	41	6	11	21
Other British Possessions .. ..	6	8	..	..	5	3
United States of America .. ..	58	90	78	16	25	31
Other Foreign Countries .. ..	44	11	5	15	10	9
<b>POLYNESIA—</b>						
British .. ..	13	9	25	7	11	18
Foreign .. ..	25	18	9	7	13	9
Indefinite .. ..	41	22	13	37	19	14
Total .. ..	37,061	44,213	43,634	37,061	44,213	43,634

6. Occupations and Ages of Bridegrooms.—On the experience of 1931, the average ages at marriage of bridegrooms in the larger classes of occupations were as follow:—Professional, 30.01 years; Domestic, 30.47 years; Commercial, 29.20 years; Transport, 28.71 years; Industrial, 28.08 years; and Primary Producers, 30.15 years.

7. **Fertility of Marriages.**—The quotient obtained by division of the nuptial births registered, e.g., during the five years 1928 to 1932, by the number of marriages registered during the five years 1923 to 1927, i.e., the period antecedent by five years to the period of the births, has been called the “fertility of marriages.” The quotient for this period is 2.53—in other words, the number of children to be expected from every marriage in Australia is about three. This method, while not absolutely accurate, generally furnishes results which agree fairly well with those found by more elaborate and careful investigation. For the following five-yearly periods the results were:—1923-27, 2.79; 1924-28, 2.81; 1925-29, 2.84; 1926-30, 2.88; 1927-31, 2.80; and 1928-32, 2.53.

8. **Celebration of Marriages.**—In all the States marriages may be celebrated either by ministers of religion whose names are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The proportions so celebrated in 1932 were:—New South Wales, 91.36 per cent.; Victoria, 87.11 per cent.; Queensland 96.21 per cent.; South Australia, 89.25 per cent.; Western Australia, 86.26 per cent.; and Tasmania, 89.52 per cent.—the percentage for Australia being 90.33. The registered ministers in 1932 belonged to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been omitted from the tabulation and are bracketed under the heading “Other Christian.” The figures for 1932 are shown in the following table:—

MARRIAGES IN EACH DENOMINATION.—AUSTRALIA, 1932.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.	
									No.	Per. Cent.
Church of England ..	6,881	3,113	1,924	801	1,152	575	4	16	14,466	33.15
Roman Catholic ..	3,624	2,144	1,429	386	469	232	2	13	8,299	19.02
Methodist ..	2,015	1,678	1,017	1,138	402	253	5	5	6,513	14.93
Presbyterian ..	2,199	2,016	1,035	125	241	107	1	6	5,730	13.13
Baptist ..	320	513	200	142	25	70	..	1	1,271	2.91
Congregational ..	375	206	104	194	84	51	..	..	1,014	2.32
Church of Christ ..	90	278	52	157	61	16	..	..	654	1.50
Lutheran ..	38	73	136	191	3	..	..	..	441	1.01
Salvation Army ..	90	86	56	44	25	18	..	..	319	0.73
Seventh-Day Adventist ..	44	8	17	12	14	7	..	..	102	0.23
Greek Catholic ..	24	10	13	2	7	..	..	..	56	0.13
Unitarian ..	5	4	..	15	..	..	..	..	24	0.06
Other Christian ..	93	45	186	36	13	21	..	..	394	0.90
Hebrew ..	64	56	3	2	9	..	..	..	134	0.31
Registrar's Office ..	1,500	1,514	243	391	399	158	10	2	4,217	9.67
<b>Total ..</b>	<b>17,362</b>	<b>11,744</b>	<b>6,415</b>	<b>3,636</b>	<b>2,904</b>	<b>1,508</b>	<b>22</b>	<b>43</b>	<b>43,634</b>	<b>100.00</b>
<b>Marriages celebrated by Ministers of Religion per cent.</b>	<b>91.36</b>	<b>87.11</b>	<b>96.21</b>	<b>89.25</b>	<b>86.26</b>	<b>89.52</b>	<b>54.55</b>	<b>95.34</b>	<b>90.33</b>	<b>..</b>
<b>Marriages celebrated by Civil Officers per cent.</b>	<b>8.64</b>	<b>12.89</b>	<b>3.79</b>	<b>10.75</b>	<b>13.74</b>	<b>10.48</b>	<b>45.45</b>	<b>4.66</b>	<b>9.67</b>	<b>..</b>

## § 3. Deaths.

1. Deaths, 1932.—The following table shows the number of deaths, male and female, registered in each State during the year :—

## DEATHS, 1932.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North Terr.	Fed. Cap. Terr.	Australia.
Males ..	12,104	8,998	4,648	2,632	2,305	1,090	61	22	31,860
Females ..	9,239	7,807	3,165	2,325	1,410	932	12	7	24,897
Total ..	21,343	16,805	7,813	4,957	3,715	2,022	73	29	56,757

2. Crude Death Rates.—The crude death rates for the period 1901 to 1932 show a gratifying decrease in the later years though this decrease is modified somewhat when allowance is made for the altered age composition of the population. (*vide* para 3.)

## CRUDE DEATH RATES.(a)

Year and Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North Terr.	Fed. Cap. Terr.	Australia.
1901 ..	11.75	13.22	11.98	11.12	13.39	10.51	19.10	(b)	12.22
1911 ..	10.31	11.52	10.65	9.81	10.19	10.14	19.63	5.61	10.66
1921 ..	9.50	10.52	9.36	10.02	10.43	10.30	20.48	1.61	9.91
1928 ..	9.34	10.11	8.77	8.92	9.11	10.06	16.88	5.84	9.45
1929 ..	9.98	9.45	8.98	8.70	9.55	10.18	15.56	4.65	9.55
1930 ..	8.53	8.94	7.93	8.35	9.02	9.00	16.56	3.64	8.59
1931 ..	8.48	9.48	7.86	8.38	8.75	9.35	15.24	4.18	8.70
1932—									
Males ..	9.43	10.10	9.02	8.69	10.21	9.91	21.89	4.68	9.55
Females ..	7.41	8.53	6.95	8.21	7.17	8.34	6.96	1.74	7.74
Total ..	8.44	9.30	8.05	8.46	8.79	9.12	16.18	3.32	8.66

(a) Number of deaths per 1,000 of annual mean population. (b) Part of New South Wales prior to 1911.

3. Index of Mortality.—(i) *General*. The death rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking the age constitution into consideration. Other conditions being equal, however the death rate of a country will be lower if it contains a large percentage of young people (not infants). In order to obtain a comparison of the mortality of various countries on a uniform basis so far as sex and age constitution are concerned, the standard population compiled by the International Institute of Statistics, according to age distribution (eleven age-groups) of the population of nineteen European countries at their censuses nearest to the year 1900 is used in the computation of the "Index of Mortality" as distinguished from the crude death rate. Full details of the "Standard Population" will be found in Year Book No. 22, page 962.

(ii) *Comparison of Rates*. For the year 1932, on the basis of the crude rates, there is a range of 1.25 per 1,000 persons between the lowest rate in Queensland (8.05) and the highest rate in Victoria (9.30), whereas the standardized rates increase the range to 2.36 per 1,000, i.e., between 8.79 in South Australia and 11.15 in Western Australia. In its application to the figures for 1932 the process of adjustment slightly altered the



relative positions of all States, with the exception of Tasmania, from those determined by the crude rates. The principal changes were that Queensland which was first in the crude rates has become second; New South Wales which was second has become third; South Australia which was third has become first and Western Australia and Victoria which occupied fourth and sixth positions respectively have changed places. The index of mortality for each State for 1932 and previous years is shown in the following table:—

## INDEX OF MORTALITY.

Year.	States.						Territories.		Aus- tralia.
	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern.	Federal Capital.	
1921	10.36	10.79	10.23	10.38	11.89	10.84	13.74	1.89	10.58
1928	10.40	10.46	9.92	9.21	11.14	10.76	11.15	6.06	10.44
1929	11.14	9.78	10.21	8.97	11.69	10.98	14.78	5.37	10.39
1930	9.54	9.31	9.03	8.69	11.16	9.66	14.10	4.52	9.38
1931	9.59	9.88	9.04	8.69	10.99	10.14	15.02	4.67	9.56
1932	9.55	9.72	9.31	8.79	11.15	9.88	19.23	3.70	9.54

4. Crude Death Rates of Various Countries.—The following table gives the crude death rates of various countries for a pre-war period and the latest available year:—

## CRUDE DEATH RATES.(a)—VARIOUS COUNTRIES.

Country.	1908-13.	1932.	Country.	1908-13.	1932.
New Zealand ..	9.3	8.0	Great Britain and		
Queensland ..	10.3	8.1	Ireland .. ..	14.5	12.3
New South Wales ..	10.3	8.4	Sweden .. ..	14.0	12.5(e)
South Australia ..	10.1	8.5	Argentina .. ..	17.5	12.5(e)
Australia .. ..	10.7	8.7	Belgium .. ..	15.7	13.2(e)
Western Australia ..	10.3	8.8	Scotland .. ..	15.5	13.5
Netherlands ..	13.9	9.0	Finland .. ..	16.4	14.1(e)
Tasmania .. ..	10.7	9.1	Northern Ireland ..	16.9	14.2
Victoria .. ..	11.7	9.3	Czechoslovakia ..	21.0	14.4(e)
Union of South Africa			Irish Free State ..	16.9	14.4
(Whites) .. ..	(c)	9.9	Italy .. ..	20.4	14.6
Canada (including			Poland .. ..	21.0	15.0
Quebec) .. ..	(c)	10.1(e)	France .. ..	18.6	15.8
Norway .. ..	13.6	10.7(e)	Spain .. ..	22.8	16.3
Germany .. ..	16.5	10.8	Soviet Republics ..	28.9	18.8(d)
United States (b) ..	(c)	10.8	Japan .. ..	20.5	19.0(e)
Denmark .. ..	13.2	11.4(e)	Ceylon .. ..	31.4	20.5
England and Wales ..	14.1	12.0	Rumania .. ..	24.7	20.8(e)
Switzerland .. ..	15.2	12.1	Egypt .. ..	25.8	26.8(e)

(a) Number of deaths per 1,000 of mean population. (b) Registration area. (c) Not available. (d) For year 1928. (e) For year 1931.

5. Infantile Deaths and Death Rates.—(i) *Australia, 1901 to 1932.* The universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births is confirmed by the fact that out of 319,654 male infants born from 1928 to 1932, 16,805 (52.57 per 1,000) died during their first year of life, while of 301,745 female infants only 12,552 (41.60 per 1,000) died during the first year.

## INFANTILE DEATHS AND DEATH RATES.—AUSTRALIA.

Year.	Registered deaths under one year.			Rate of Infantile Mortality. (a)		
	Males.	Females.	Total.	Males.	Females.	Total.
1901 ..	5,888	4,778	10,666	112.13	94.73	103.61
1911 ..	4,745	3,624	8,369	75.91	60.72	68.49
1921 ..	5,111	3,841	8,952	72.97	58.06	65.73
1928 ..	4,003	3,090	7,101	57.89	47.72	52.96
1929 ..	3,873	2,743	6,616	58.13	43.64	51.10
1930 ..	3,419	2,646	6,065	51.90	42.33	47.24
1931 ..	2,889	2,105	4,994	47.34	36.62	42.14
1932 ..	2,621	1,960	4,581	46.00	36.32	41.30

(a) Number of deaths under 1 year per 1,000 live births registered.

(ii) States, 1901 to 1932. For the States and Territories the rates of infantile mortality during the period 1901-32 were as follow :—

## INFANTILE MORTALITY RATES.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Australia.
1901-05..	97.02	95.91	94.35	86.60	124.79	90.00	149.35	(c)	96.91
1906-10..	77.30	79.90	71.27	68.38	89.80	83.18	143.79	(c)	77.61
1911-15..	71.05	72.23	65.68	67.26	72.43	70.91	85.11	32.56	70.32
1916-20..	64.82	67.18	63.04	61.93	61.73	63.84	67.15	40.40	64.67
1921-25..	58.11	61.93	50.99	54.19	59.14	60.44	40.82	60.24	57.88
1928 ..	54.77	55.63	45.54	47.51	48.14	63.95	60.24	83.33 <sup>b</sup>	52.96
1929 ..	56.44	47.23	46.03	40.88	56.13	53.16	18.87	19.61 <sup>b</sup>	51.10
1930 ..	49.84	46.61	39.97	48.38	46.74	50.56	70.42	24.39 <sup>b</sup>	47.24
1931 ..	43.48	44.47	36.67	36.35	41.53	45.90	83.33	37.27 <sup>b</sup>	42.14
1932 ..	40.98	43.00	40.19	36.62	44.57	41.19	75.95	19.87 <sup>b</sup>	41.30

(a) Number of deaths under 1 year per 1,000 live births registered. (b) Based on deaths of infants born in the Federal Capital Territory. (c) Part of New South Wales prior to 1911.

## INFANTILE MORTALITY RATES—UNDER ONE MONTH AND UNDER ONE YEAR.

State.	Under one month.			One month and under one year.		
	1911-15.	1921-25.	1932.	1911-15.	1921-25.	1932.
New South Wales ..	31.75	29.97	27.46	39.30	28.14	13.52
Victoria ..	33.07	32.19	27.20	39.16	29.74	15.80
Queensland ..	30.73	27.44	29.92	34.95	23.55	10.27
South Australia ..	29.07	27.83	23.00	38.19	26.36	13.62
Western Australia ..	30.87	27.56	25.86	41.56	31.58	18.71
Tasmania ..	32.68	31.73	27.39	38.23	28.71	13.80
Australia ..	31.69	29.91	27.22	38.63	27.97	14.08

These tables disclose the striking decrease in infantile mortality, the rate for 1932 being less than half that of 1901-05. The second table reveals the fact that relatively little improvement has taken place in the first month of life, but that the principal decrease has occurred among the older children and has been due to the decline in preventible diseases.

The deaths of infants under one year of age during 1932 numbered 4,581, the mortality rate being 41.30, which is the lowest recorded in Australia. Among the States in 1932 South Australia had the lowest and Western Australia the highest rate.

(iii) *Districts.* The total number of births and of deaths of children under one year of age for 1932 are shown in Australian Demography Bulletin, No. 50, Tables 15 and 74, for each of the sixty-four districts for which the vital statistics have been tabulated.

(iv) *Various Countries and Cities.* Compared with other countries, the States of Australia occupy a very favourable position, being surpassed by New Zealand only. Among cities, however, the best of the Australian cities, Adelaide, has the sixth place only, whereas New Zealand has the first two cities, Auckland and Wellington, with Christchurch fifth, in the list presented on the next page. A study of the respective rates shows that a high birth rate is often, though not invariably, accompanied by a high infantile death rate.

#### INFANTILE MORTALITY RATES. (a)—VARIOUS COUNTRIES.

Country.	Infantile Mortality Rate.(a)		Crude Birth Rate.(b) 1932.	Country.	Infantile Mortality Rate.(a)		Crude Birth Rate.(b) 1932.
	1906-15.	1932.			1906-15.	1932.	
New Zealand ..	61	31	17.1	Irish Free State	92	71	18.9
South Australia..	68	37	14.5	Canada (includ- ing Quebec) ..	(c)	73	22.4
Queensland ..	68	40	17.9	France ..	122	76	17.3
Australia ..	74	41	17.0	Germany ..	168	79	15.1
New South Wales	74	41	17.8	Denmark ..	103	81(e)	18.0(e)
Tasmania ..	77	41	20.3	Northern Ireland	92	82(e)	20.0(e)
Victoria ..	76	43	15.2	Belgium ..	139	82(e)	18.2(e)
Western Australia	81	45	18.9	Scotland ..	113	86	18.6
Norway ..	68	46(e)	16.7(e)	Italy ..	144	106(d)	23.8
Netherlands ..	115	46	22.0	Spain ..	156	111	28.1
Switzerland ..	108	51	16.7	Japan ..	151	132(e)	32.2(e)
Sweden ..	74	51	14.5	Czechoslovakia	(c)	138	21.0
United States (Re- gistration Area)	(c)	58	17.4	Egypt ..	(c)	160(e)	44.8(e)
England and Wales ..	113	65	15.3	Ceylon ..	(c)	162	37.0
Great Britain and Ireland ..	..	68	15.8	Rumania ..	(c)	176(d)	33.3(e)
Union of South Africa (Whites)	(c)	69	24.3	Hungary ..	205	186	23.0

(a) Number of deaths under 1 year per 1,000 births registered. (b) Number of births per 1,000 of mean population. (c) Not available. (d) For year 1930. (e) For year 1931.

## INFANTILE MORTALITY RATES.(a)—VARIOUS CITIES.

City.	Rate of Infantile Mortality.(a)		City.	Rate of Infantile Mortality.(a)	
	1921.	1932.		1921.	1932.
Auckland .. ..	54	31	Birmingham ..	82	66
Wellington .. ..	61	34	Dresden .. ..	115	66
Amsterdam .. ..	54	34	Berlin .. ..	135	67
San Francisco .. ..	50	38	Sheffield .. ..	99	71
Christchurch .. ..	54	39	Edinburgh .. ..	96	73
Adelaide .. ..	74	39	Washington .. ..	83	74
Sydney .. ..	62	39	Munich .. ..	126	74
Stockholm .. ..	61	41	Antwerp .. ..	98	76
Newcastle, N.S.W. ..	70	44	Cologne .. ..	140	77
Oslo .. ..	54	45	Manchester .. ..	94	78
Perth .. ..	81	48	Leeds .. ..	98	82
Melbourne .. ..	74	48	Leipzig .. ..	136	83
Hobart .. ..	75	48	Breslau .. ..	170	83
Brisbane .. ..	62	50	Paris .. ..	95	85
Chicago .. ..	84	50	Liverpool .. ..	105	87
New York City .. ..	72	51	Johannesburg .. ..	101	88
Detroit .. ..	83	51	Aberdeen .. ..	108	93
Philadelphia .. ..	78	51	Montreal .. ..	158	96
Copenhagen .. ..	67	52	Dublin .. ..	123	101
Los Angeles .. ..	68	54	Belfast .. ..	115	111
Toronto .. ..	91	57	Glasgow .. ..	106	112
London .. ..	80	61	Bombay .. ..	402	218
Hamburg .. ..	95	64	Madras .. ..	281	234
Cape Town .. ..	82	65			

(a) Number of deaths under 1 year per 1,000 births registered.

## CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA, 1932.

Age at Death.	Measles.	Whooping Cough.	Diphtheria.	Erysipelas.	Meningococcal Meningitis.	Pulmonary Tuberculosis.	Tubercular Meningitis.	Tuberculosis, other forms.	Syphilis.	Meningitis.	Convulsions.	Acute Bronchitis.
Under 1 week .. ..	..	..	..	..	..	..	..	..	4	3	12	2
1 week and under 2 weeks ..	..	..	..	..	..	..	..	..	..	..	2	4
2 weeks " 3 " .. ..	..	2	..	1	..	..	..	..	1	1	1	..
3 " " 1 month .. ..	..	4	..	..	..	..	..	..	1	..	3	1
1 month " 2 months .. ..	..	16	4	2	..	..	..	..	1	2	1	9
2 months " 3 " .. ..	..	19	..	2	1	..	..	..	5	4	1	4
3 " " 4 " .. ..	..	11	..	1	1	..	..	..	2	3	..	..
4 " " 5 " .. ..	..	6	1	1	..	1	..	..	1	3	1	3
5 " " 6 " .. ..	..	7	2	2	1	..	..	..	1	1	1	1
6 " " 7 " .. ..	..	3	2	2	..	..	..	..	1	6	2	1
7 " " 8 " .. ..	..	3	2	..	2	..	..	..	2	4	..	..
8 " " 9 " .. ..	1	7	3	..	..	3	..	..	..	5	..	3
9 " " 10 " .. ..	1	9	5	..	..	3	..	..	..	4	2	1
10 " " 11 " .. ..	3	8	6	3	1	..	..	..	..	4	1	..
11 " " 1 year .. ..	..	6	5	1	..	1	4	2	1	..	2	..
Total under 1 year ..	6	104	30	16	5	1	15	4	20	38	28	33
Infantile Mortality (a)—												
1911 .. ..	0.34	1.57	0.25	0.16	..	0.08	0.31	0.22	0.85	1.83	2.55	2.34
1921 .. ..	0.15	1.97	0.59	0.24	0.03	0.07	0.18	0.08	0.56	1.10	1.45	1.50
1931 .. ..	0.10	1.58	0.25	0.11	0.08	0.03	0.22	0.04	0.20	0.32	0.39	0.32
1932 .. ..	0.05	0.94	0.27	0.14	0.05	0.01	0.14	0.04	0.18	0.34	0.25	0.30
Ex-nuptial deaths under 1 year included in above .. ..	..	6	1	1	..	..	..	..	2	1	3	1
Infantile Mortality (b)—												
1925 .. ..	0.16	2.06	0.32	0.16	0.48	..	0.32	..	1.27	0.32	2.38	0.48
1931 .. ..	0.51	1.71	0.34	..	0.17	..	0.34	..	0.51	..	0.51	0.86
1932 .. ..	..	1.13	0.19	0.19	..	..	..	..	0.38	0.19	0.57	0.19

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA,  
1932—continued.

Age at Death.	Broncho-Pneumonia.	Pneumonia.	Other Diseases of Stomach.	Diarrhoea and Enteritis.	Hernia and Intestinal Obstruction.	Malformation.	Congenital Debility, Icterus and Sclerema.	Premature Birth.	Injury at Birth.	Other Diseases peculiar to Early Infancy.	Other Causes.	Total.
Under 1 week ..	18	12	..	7	1	247	156	1,348	282	342	61	2,495
1 week and under 2 weeks ..	13	4	..	8	1	45	25	96	27	47	19	291
2 weeks ..	6	4	..	6	1	29	16	40	9	11	13	141
3 ..	13	2	1	4	1	17	5	17	1	8	15	93
1 month ..	45	11	1	15	4	41	32	32	3	10	33	261
2 months ..	23	9	2	22	..	27	15	14	..	..	30	180
3 ..	34	15	..	39	5	26	..	4	..	..	23	173
4 ..	11	8	1	32	3	13	16	1	2	..	15	120
5 ..	19	9	3	35	2	6	2	1	1	..	21	120
6 ..	21	13	1	29	7	14	2	..	..	..	19	125
7 ..	23	11	1	28	6	4	1	1	..	..	19	113
8 ..	14	9	1	30	3	5	3	..	..	..	22	109
9 ..	17	14	..	19	6	4	..	1	..	..	33	118
10 ..	15	11	2	22	3	8	5	..	..	..	24	118
11 ..	23	17	1	23	3	3	1	1	..	..	30	124
Total under 1 year ..	295	149	14	319	46	489	289	1,556	325	422	377	4,581
Infantile Mortality (a)—												
1911 ..	2.86	1.90	0.47	16.99	0.72	2.99	..	22.41	4.07		5.58	68.49
1921 ..	3.08	2.08	0.71	15.01	0.57	3.74	7.64	15.29	5.53		4.16	65.73
1931 ..	2.82	1.62	0.13	3.26	0.41	4.23	2.60	14.04	2.81	3.29	3.29	42.14
1932 ..	2.66	1.34	0.13	2.88	0.42	4.40	2.61	14.02	2.93	3.80	3.40	41.30
Ex-nuptial deaths under 1 year included in above ..	23	13	..	34	2	15	29	108	17	21	33	310
Infantile Mortality (b)—												
1925 ..	8.09	2.38	1.11	19.18	0.47	3.64	9.51	20.93	1.90	2.69	6.98	84.83
1931 ..	5.31	3.43	0.34	8.39	0.17	4.28	7.19	21.92	3.08	3.77	5.82	68.65
1932 ..	4.34	2.45	..	6.41	0.38	2.83	3.47	20.38	3.21	3.96	6.22	58.49

(a) Rate per 1,000 total births.

(b) Rate per 1,000 ex-nuptial births.

(v) *Causes of Deaths of Children under one Year.* The preceding table gives for twenty-three causes the ages of all children who died under one year of age during 1932. The infantile mortality rates for 1911, 1921, 1931 and 1932, have been added for all births, and for 1925, 1931 and 1932, for ex-nuptial births. Particulars for males and females may be found in Bulletin No. 50 of "Australian Demography."

Pre-natal influences, such as malformation, congenital debility, and premature birth, together with injuries at birth, accounted for 2,659, or 58 per cent. of all deaths under one year; and of these 2,659 deaths, 2,033, or 76 per cent., occurred within a week of birth. Among the survivors of the first week, diarrhoea and enteritis caused the greatest number of deaths. These diseases were responsible for 319 deaths, representing 7 per cent. of all deaths under one year, or 2.88 per 1,000 births. Broncho-pneumonia was next, with 295 deaths representing 6 per cent. of all deaths under one year, or 2.66 per 1,000 births.

(vi) *Deaths of Ex-nuptial Children under one Year.* The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925. The causes of death of these children in 1932 and the rates in respect of 1925 and 1932 are shown as an addendum to the preceding table.



7. Deaths at Single Ages and in Age-Groups.—(i) *General.* The 56,757 deaths registered in Australia in the year 1932 will be found tabulated in groups of five years for each State and Territory in Bulletin No. 50 "Australian Demography, 1932." The deaths during the first two years of life have been tabulated in shorter periods. A summary for Australia is given in the following table:—

## DEATHS AT SINGLE AGES AND IN AGE-GROUPS.—AUSTRALIA, 1932.

Ages.	Males.	Fe- males.	Total.	Ages.	Males.	Fe- males.	Total.
Under 1 week ..	1,430	1,065	2,495	Total 5-9 years ..	489	383	872
1 week and under 2 ..	187	104	291	" 10-14 " ..	399	262	661
2 weeks and under 3 ..	76	65	141	" 15-19 " ..	541	433	974
3 weeks and under 1 month	49	44	93	" 20-24 " ..	704	612	1,316
				" 25-29 " ..	665	607	1,272
Total under 1 month	1,742	1,278	3,020	" 30-34 " ..	707	684	1,391
				" 35-39 " ..	935	884	1,819
1 month and under 3 ..	263	178	441	" 40-44 " ..	1,199	927	2,126
3 months and under 6 ..	224	189	413	" 45-49 " ..	1,496	1,151	2,647
6 months and under 12	392	315	707	" 50-54 " ..	1,885	1,365	3,250
				" 55-59 " ..	2,211	1,449	3,660
Total under 1 year	2,621	1,960	4,581	" 60-64 " ..	2,885	1,995	4,880
				" 65-69 " ..	3,658	2,540	6,198
1 year and under 2 ..	472	358	830	" 70-74 " ..	3,786	2,747	6,533
2 years ..	238	194	432	" 75-79 " ..	3,160	2,503	5,663
3 " ..	182	139	321	" 80-84 " ..	2,013	1,809	3,822
4 " ..	144	119	263	" 85-89 " ..	1,026	1,177	2,203
				" 90-94 " ..	323	439	762
				" 95-99 " ..	73	141	214
				" 100 and over	19	15	34
				Age Unspecified ..	29	4	33
Total under 5 years ..	3,657	2,770	6,427	Total All Ages ..	31,860	24,897	56,757

(ii) *Rates.* The death rate per 1,000 living at each age in each State for the three years 1920, 1921, and 1922, i.e., the Census year 1921, and the years immediately preceding and following, may be found in Official Year Book No. 22, page 975.

8. Deaths of Centenarians.—Particulars concerning the thirty-four persons—nineteen males and fifteen females—who died in 1932 aged 100 years and upwards, are given in the following table. While the Registrars-General of the various States verify the figures as far as possible, absolute reliance cannot be placed on their accuracy, owing to the well-known tendency of very old people to overstate their ages. In connexion with this question it may be noted that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 having left many loopholes for those unwilling to register the births of their children.

## DEATHS OF CENTENARIANS.—AUSTRALIA, 1932.

Age.	Locality where Death occurred.	State.	Cause of Death.	Occupation.	Birthplace.	Length of Residence in Australia.	Conjugal Condition.
MALES.							
109	Liverpool ..	N.S.W. ..	Carcinoma of of Right Cheek	Seaman ..	England ..	Unknown	Married
108	Brisbane ..	Queensland	Senility ..	Shepherd	Ireland ..	70 years ..	Single
106	Rockley ..	N.S.W. ..	" ..	Gardener ..	China ..	Unknown	Married
105	Beechworth ..	Victoria ..	Gastro- Enteritis	" ..	" ..	" ..	Unknown
105	Rockhampton	Queensland	Lobar Pneumonia	Not stated	Unknown	" ..	" ..
104	Auburn ..	N.S.W. ..	Senility ..	Farmer ..	China ..	86 years ..	Married
103	Brisbane ..	Queensland	Broncho- Pneumonia	Not stated	Unknown	Unknown	Single
103	Cook ..	" ..	Senility ..	Gardener ..	China ..	50 years ..	Unknown
103	Taree ..	N.S.W. ..	Senile Myocarditis	Farmer ..	Ireland ..	83 years ..	Married
102	Avon ..	Victoria ..	Arterio- Sclerosis	Labourer ..	" ..	80 years ..	Single
102	Leven ..	Tasmania	Senility ..	Not stated	Scotland ..	90 years ..	Married
102	Toowoomba	Queensland	Senility ..	Farm Hand	Ireland ..	76 years ..	Single
101	Gympie ..	" ..	" ..	Grazier ..	" ..	70 years ..	Married
101	Walpeup ..	Victoria ..	Chronic Bronchitis	Labourer ..	Scotland ..	86 years ..	Single
100	Clermont ..	Queensland	Myocarditis Broncho- Pneumonia	Not stated	N.S.W. ..	Native ..	Married
100	Cloneurruy ..	" ..	Senility ..	Fencer ..	Victoria ..	" ..	" ..
100	Plantagenet	West. Aust.	" ..	Storekeeper	England ..	20 years ..	" ..
100	Toowoomba	Queensland	" ..	Not stated	N.S.W. ..	Native ..	" ..
100	West Torrens	Sth. Aust.	Hypostatic Pneumonia	Farmer ..	Ireland ..	77 years ..	" ..

## FEMALES.

104	Adelong ..	N.S.W. ..	Senility ..	" ..	England ..	82 years ..	Married
103	Glen Innes	" ..	" ..	" ..	N.S.W. ..	Native ..	" ..
103	Onkaparinga	Sth. Aust.	" ..	" ..	Scotland ..	87 years ..	" ..
101	Ararat ..	Victoria ..	Rodent Ulcer of nose	" ..	England ..	80 years ..	" ..
101	Caulfield ..	" ..	Carcinoma of Breast	" ..	Ireland ..	47 years ..	" ..
101	Chatswood	N.S.W. ..	Senility ..	" ..	Scotland ..	99 years ..	Single
101	Maffra ..	Victoria ..	Cerebral Thrombosis	" ..	Ireland ..	51 years ..	Married
101	Marrickville	N.S.W. ..	Senility ..	" ..	England ..	79 years ..	" ..
101	Unley ..	Sth. Aust.	Cerebral Hemorrhage	" ..	" ..	63 years ..	Single
101	West Maitland	N.S.W. ..	Lobar Pneumonia	" ..	" ..	75 years ..	Married
100	Beverley ..	West. Aust.	Senility ..	" ..	Sth. Aust.	Native ..	" ..
100	Bungaree ..	Victoria ..	" ..	" ..	England ..	80 years ..	" ..
100	Fingal ..	Tasmania	Chronic Myocarditis	" ..	Tasmania	Native ..	" ..
100	Narrabri ..	N.S.W. ..	Multiple Epithelioma of face	" ..	Nova Scotia	51 years ..	" ..
100	Warwick ..	Queensland	Senile Myocarditis	" ..	England ..	87 years ..	" ..

NOTE.—The particulars shown in this table are those given in the death certificates, and no attempt has been made by the Commonwealth Bureau of Census and Statistics to verify them.



9. Length of Residence in Australia of Persons who Died.—The length of residence in Australia of all persons whose deaths were registered in the year 1932 is shown in the following table:—

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1932.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	21,275	18,016	39,291	Resident 25 to 29 years	260	114	374
Resident under 1 year ..	47	19	66	"  30 to 34 " ..	386	173	559
"  1 year ..	12	14	26	"  35 to 39 " ..	322	146	468
"  2 years ..	28	20	48	"  40 to 44 " ..	969	501	1,470
"  3 " ..	48	31	79	"  45 to 49 " ..	1,245	776	2,021
"  4 " ..	64	46	110	"  50 to 54 " ..	1,289	756	2,045
"  5 " ..	98	50	148	"  55 to 59 " ..	563	385	948
"  6 " ..	81	54	135	"  60 to 64 " ..	491	430	921
"  7 " ..	83	53	136	"  65 yrs. and over	1,447	1,775	3,222
"  8 " ..	66	45	111	Length of residence not stated ..	1,474	457	1,931
"  9 " ..	64	56	120				
"  10 to 14 years ..	289	242	531				
"  15 to 19 " ..	387	267	654				
"  20 to 24 " ..	872	471	1,343	Total ..	31,860	24,897	56,757

10. Birthplaces of Persons who Died.—The following table provides a summary of birthplaces of persons whose deaths were registered in 1911 and 1932. More detailed information in respect of 1932 will be found in "Australian Demography," Bulletin No. 50.

BIRTHPLACES OF PERSONS WHO DIED.—AUSTRALIA.

Birthplace.	1911.			1932.		
	Males.	Females.	Total.	Males.	Females.	Total.
<b>Australasia—</b>						
Australia .. ..	14,476	12,279	26,755	21,276	18,016	39,292
New Zealand .. ..	126	79	205	251	184	435
<b>Europe—</b>						
England and Wales .. ..	5,639	3,541	9,180	5,050	3,499	8,549
Scotland .. ..	1,666	1,112	2,778	1,297	939	2,236
Ireland .. ..	2,837	2,528	5,365	1,567	1,453	3,020
Other British Possessions .. ..	40	26	66	47	15	62
Western Europe .. ..	365	62	427	354	73	427
Central Europe .. ..	678	292	970	501	282	783
Southern Europe .. ..	122	15	137	237	61	298
Eastern Europe .. ..	71	6	77	82	15	97
<b>Asia—</b>						
British Possessions .. ..	102	28	130	101	34	135
Foreign Countries .. ..	470	8	478	298	23	321
<b>Africa—</b>						
British Possessions .. ..	29	18	47	39	22	61
Foreign Countries .. ..	2	1	3	2	1	3
<b>America—</b>						
Canada .. ..	73	15	88	42	14	56
Other British Possessions .. ..	5	6	11	19	3	22
United States of America .. ..	72	18	90	64	42	106
Other Foreign Countries .. ..	35	12	47	12	4	16
<b>Polynesia—</b>						
British .. ..	47	4	51	18	8	26
Foreign .. ..	44	10	54	27	7	34
<b>Indefinite .. ..</b>	692	218	910	576	202	778
<b>Total .. ..</b>	<b>27,591</b>	<b>20,278</b>	<b>47,869</b>	<b>31,860</b>	<b>24,897</b>	<b>56,757</b>

11. Occupations of Males who Died.—Information as to the main groups of the occupations of the 31,860 males who died in Australia in 1932 is contained in the following table. Corresponding data for 1921 and 1931 have been added for purposes of comparison.

OCCUPATIONS OF MALES WHO DIED.—AUSTRALIA.

Occupations in Classes.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1932.	1921.	1931.	1932.
Professional .. ..	1,307	1,534	1,762	4.26	4.82	5.53
Domestic .. ..	830	846	784	2.71	2.66	2.46
Commercial .. ..	2,739	3,727	2,676	8.94	11.72	8.40
Transport and Communica- tion .. ..	1,841	2,189	2,190	6.01	6.89	6.88
Industrial .. ..	8,613	10,330	4,557	28.10	32.49	14.30
Agricultural, Pastoral, and Mining, &c. .. ..	5,711	6,157	6,370	18.63	19.36	19.99
Indefinite .. ..	1,436	1,802	13,521 (a)	4.68	5.67	42.44 (a)
Dependent .. ..	8,175	5,211				
Total Male Deaths ..	30,652	31,796	31,860	100.00	100.00	100.00

(a) Includes 6,690 (21.05 per cent.) clerks, labourers, &c., where industry was not given, which were formerly included under "Commercial" or "Industrial".

12. Causes of Death.—(i) *General.* The classification adopted by the Commonwealth Bureau of Census and Statistics is that of the International Institute of Statistics, as amended by the Committees of Revision which met in Paris in 1909, 1920, and 1929.

(ii) *Mortality Statistics for 1907 and Subsequent Years.* The statistics relating to causes of death in Australia from the year 1907 onward have been tabulated in the Commonwealth Bureau of Census and Statistics in accordance with the above-mentioned classification, and the system is being employed also in the various State statistical offices.

(iii) *Classification of Causes of Death, 1928 to 1932, according to Abridged International Classification.* An abridged classification, which enumerates forty-three diseases and groups of diseases according to the revised classification, is in use in many European countries and American States, and a table has been prepared showing the causes of death according to the abridged classification, so that the results may be compared with those of countries which use the abridged index.

The compilations for the years 1928 to 1932 will be found in full in *Bulletins Nos. 46 to 50 of "Australian Demography."* In the following tables the abridged classification has been employed. Tables A, B and C show deaths of males, females and persons for the year 1932. Table D shows the number of persons who died in each of the years 1928 to 1932 and gives the rate per million of population for the last-named year.

Since death rates are subject to continual fluctuation, it is unsafe to base deductions on the figures relating to a single year. In order, therefore, to furnish a valid basis for comparison, Table E giving the number of deaths and the rates per 1,000,000 persons for three quinquennial periods has been prepared. While the absolute number of deaths has increased, the death rate has shown a very satisfactory decrease, which is reflected in the great majority of the causes specified in the table.

## A—CAUSES OF DEATH—AUSTRALIA.—MALES, 1932.

Abridged Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Aus-tralia.
1. Typhoid Fever .. .. .	1, 2	18	6	15	8	..	1	..	..	48
2. Typhus Fever .. .. .	3	..	..	..	1	2	..	..	..	3
3. Small-pox .. .. .	4	..	..	1	..	..	..	..	..	1
4. Measles .. .. .	7	7	7	..	1	..	2	..	..	17
5. Scarlet Fever .. .. .	8	16	16	..	..	..	1	..	..	33
6. Whooping Cough .. .. .	9	36	8	5	1	17	4	..	..	71
7. Diphtheria .. .. .	8	84	94	25	5	10	8	..	1	227
8a. Influenza—Pneumonic .. .. .	11 (a)	35	26	12	6	19	1	..	..	99
8b. Influenza—Other .. .. .	11 (b)	31	17	16	1	12	3	..	..	80
10. Tuberculosis of the Respiratory System .. .. .	23	581	464	211	133	146	50	2	1	1,588
11a. Tubercular Meningitis .. .. .	24	24	21	3	9	6	2	..	..	65
11b. Other Tuberculous Diseases .. .. .	25-32	40	51	9	12	3	10	..	..	125
12. Syphilis .. .. .	34	39	34	18	8	12	1	..	..	112
13. Malaria .. .. .	38	2	1	9	1	2	..	1	..	16
14. Other Infectious or Parasitic Diseases .. .. .	*	160	89	63	30	21	8	..	..	371
15. Cancer and other Malignant Tumours .. .. .	45-53	1,404	1,045	514	328	276	119	9	1	3,696
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	54, 55	67	33	25	10	12	4	..	..	151
17. Chronic Rheumatism, Gout .. .. .	57, 58	15	18	8	5	5	2	..	..	53
18. Diabetes Mellitus .. .. .	59	141	113	44	39	21	17	..	..	375
19. Acute and Chronic Alcoholism .. .. .	75	21	3	18	4	1	..	..	..	47
20. Other General Diseases .. .. .	*	157	151	59	48	40	23	1	..	479
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	80, 83	60	25	17	14	8	3	..	..	127
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	82	540	400	164	162	106	48	..	1	1,421
23. Other Diseases of Nervous System and Sense Organs .. .. .	90-95	262	199	106	48	38	27	2	1	683
24. Diseases of the Heart .. .. .	90-95	2,629	1,735	819	474	357	232	3	4	6,253
25. Other Diseases of the Circulatory System .. .. .	96-103	526	478	167	96	71	55	..	..	1,393
26a. Acute Bronchitis .. .. .	106(a)(c)	50	20	12	10	4	6	1	..	103
26b. Chronic Bronchitis .. .. .	106(b)(d)	123	117	36	21	18	10	1	..	326
27. Pneumonia (all forms) .. .. .	107-109	719	587	235	173	149	89	4	4	1,960
28. Other Diseases of the Respiratory System .. .. .	104, 105, 110-114	145	227	127	59	57	24	1	..	640
29a. Diarrhœa and Enteritis (under two years of age) .. .. .	119	105	66	35	18	37	6	..	..	267
29b. Diarrhœa and Enteritis (two years and over) .. .. .	120	77	57	37	22	11	7	..	..	211
30. Appendicitis .. .. .	121	133	70	55	28	20	4	..	..	310
31a. Cirrhosis of the Liver .. .. .	124	60	69	34	10	11	6	..	..	190
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	61	59	20	10	12	..	..	..	162
32a. Hernia, Intestinal Obstruction .. .. .	122	112	78	48	35	14	14	..	1	302
32b. Other Diseases of the Digestive System .. .. .	*	204	142	95	45	46	20	..	2	554
33. Nephritis .. .. .	130-132	783	525	292	126	116	42	3	1	1,888
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	277	195	125	73	45	39	..	..	754
37. Diseases of the Skin, Bones, etc. .. .. .	151-156	91	54	34	7	12	11	1	..	210
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	157-161	731	495	306	116	134	72	2	..	1,856
39. Senility .. .. .	162	366	437	273	158	121	29	5	..	1,389
40. Suicide .. .. .	163-171	220	135	119	38	74	11	1	..	598
41. Homicide .. .. .	172-175	21	10	15	6	2	3	5	1	63
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	176-198	872	588	388	188	217	70	7	4	2,334
43. Non-specified and Ill-Defined Causes .. .. .	199-200	59	33	34	45	20	6	12	..	209
Total—Males .. .. .	..	12,104	8,998	4,648	2,632	2,305	1,090	61	22	31,860

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 84-89; No. 32b:—115-118, 123, 128, 129.

## B—CAUSES OF DEATH.—AUSTRALIA—FEMALES, 1932.

Abridged Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
1. Typhoid Fever .. ..	1, 2	13	6	5	5	3	1	..	..	33
2. Typhus Fever .. ..	3	1	..	..	..	1	..	..	..	2
4. Measles .. ..	7	7	10	..	..	..	1	..	..	18
5. Scarlet Fever .. ..	8	41	22	2	2	2	4	..	..	73
6. Whooping Cough .. ..	9	25	19	11	3	21	3	..	..	82
7. Diphtheria .. ..	10	76	71	26	6	10	9	..	..	198
8a. Influenza—Pneumonic .. ..	11(a)	36	27	14	3	14	2	..	..	96
8b. Influenza—Other .. ..	11(b)	34	18	16	2	3	1	..	..	74
10. Tuberculosis of the Respiratory System .. ..	23	387	348	119	104	57	56	1	1	1,073
11a. Tubercular Meningitis .. ..	24	21	28	1	6	6	11	..	..	73
11b. Other Tuberculous Diseases .. ..	25-32	17	38	8	11	3	3	..	..	80
12. Syphilis .. ..	34	24	18	3	4	1	2	..	..	52
14. Other Infectious or Parasitic Diseases .. ..	*	105	56	47	15	8	5	2	..	238
15. Cancer and other Malignant Tumours .. ..	45-53	1,128	1,083	358	326	172	111	1	..	3,179
16. Tumours, Non-Malignant or of Unspecified Nature .. ..	54, 55	89	57	24	21	14	4	..	..	209
17. Chronic Rheumatism, Gout .. ..	57, 58	30	40	10	13	4	2	..	..	99
18. Diabetes Mellitus .. ..	59	237	183	70	74	34	26	..	..	624
19. Acute and Chronic Alcoholism .. ..	75	1	1	2	..	1	..	..	..	5
20. Other General Diseases .. ..	*	208	155	101	67	35	27	..	..	593
21. Locomotor Ataxy, General Paralysis of Insane .. ..	80, 83	8	4	1	3	1	..	..	..	17
22. Cerebral Hæmorrhage, Embolism, etc. .. ..	82	554	542	170	175	93	65	..	1	1,600
23. Other Diseases of Nervous System and Sense Organs .. ..	*	197	130	67	47	34	16	1	1	493
24. Diseases of the Heart .. ..	90-95	1,955	1,438	595	383	237	210	1	2	4,821
25. Other Diseases of the Circulatory System .. ..	96-103	434	481	128	102	43	43	1	1	1,233
26a. Acute Bronchitis .. ..	106(a)(c)	62	21	7	12	2	4	..	..	108
26b. Chronic Bronchitis .. ..	106(b)(d)	67	88	26	21	17	6	..	..	225
27. Pneumonia (all forms) .. ..	107-109	519	480	161	158	100	62	1	..	1,481
28. Other Diseases of the Respiratory System .. ..	104, 105, 110-114	82	120	44	43	24	7	..	..	320
29a. Diarrhœa and Enteritis (under two years of age) .. ..	119	79	57	24	11	31	3	..	..	205
29b. Diarrhœa and Enteritis (two years and over) .. ..	120	60	65	27	17	19	5	..	..	193
30. Appendicitis .. ..	121	81	55	26	8	6	5	..	..	181
31a. Cirrhosis of the Liver .. ..	124	33	25	4	7	4	4	..	..	77
31b. Other Diseases of the Liver and Biliary Calculi .. ..	125-127	121	78	41	42	19	14	..	..	315
32a. Hernia, Intestinal Obstruction .. ..	122	96	58	33	33	15	13	..	..	248
32b. Other Diseases of the Digestive System .. ..	*	125	93	36	33	17	13	..	..	317
33. Nephritis .. ..	130-132	588	473	262	128	76	24	1	..	1,552
34. Other Diseases of the Genito-Urinary System .. ..	133-139	132	79	49	34	19	12	..	..	325
35a. Post-Abortive Sepsis .. ..	140(a)	33	9	14	5	5	5	..	..	71
35b. Criminal Abortion .. ..	140(b)	50	30	2	4	..	2	..	..	88
35c. Puerperal Septicæmia .. ..	145	25	27	15	9	5	3	..	..	84
36. Other Diseases of Pregnancy and Labour .. ..	141-144, 146-150	166	89	56	26	22	16	..	..	375
37. Diseases of the Skin, Bones, etc. .. ..	151-156	66	28	17	11	6	1	..	..	129
38. Congenital Debility, Malformations, Premature Birth, etc. .. ..	157-161	540	312	211	93	104	57	1	..	1,318
39. Senility .. ..	162	305	595	197	153	62	49	..	..	1,361
40. Suicide .. ..	163-171	59	39	25	13	14	6	..	..	156
41. Homicide .. ..	172-175	12	6	5	4	..	1	..	..	28
42. Accidental or Violent Death (except Suicide and Homicide) .. ..	176-198	296	184	95	74	39	17	2	1	708
43. Non-specified and Ill-Defined Causes .. ..	199-200	14	21	10	14	7	1	..	..	67
Total—Females .. ..	..	9,239	7,807	3,165	2,325	1,410	932	12	7	24,897

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89; No. 32b:—115-118, 123, 128, 129.

## C—CAUSES OF DEATH.—AUSTRALIA—PERSONS, 1932.

Abridged Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
1. Typhoid Fever .. .. .	1, 2	31	12	20	13	3	2	..	..	81
2. Typhus Fever .. .. .	3	1	..	..	1	3	..	..	..	5
3. Small-pox .. .. .	6	..	..	1	..	..	..	..	..	1
4. Measles .. .. .	7	14	17	..	1	..	3	..	..	35
5. Scarlet Fever .. .. .	8	57	38	2	2	2	5	..	..	106
6. Whooping Cough .. .. .	9	61	27	16	4	38	7	..	..	153
7. Diphtheria .. .. .	10	160	165	51	11	20	17	..	1	425
8a. Influenza—Pneumonic .. .. .	11(a)	71	53	26	9	33	3	..	..	195
8b. Influenza—Other .. .. .	11(b)	65	35	32	3	15	4	..	..	154
10. Tuberculosis of the Respiratory System .. .. .	23	968	812	330	237	203	106	3	2	2,661
11a. Tubercular Meningitis .. .. .	24	45	49	4	15	12	13	..	..	138
11b. Other Tuberculous Diseases .. .. .	25-32	57	89	17	23	6	13	..	..	205
12. Syphilis .. .. .	34	63	52	21	12	13	3	..	..	164
13. Malaria .. .. .	38	2	1	9	1	2	..	1	..	16
14. Other Infectious or Parasitic Diseases .. .. .	*	265	145	110	45	29	13	2	..	609
15. Cancer and other Malignant Tumours .. .. .	45-53	2,532	2,128	872	654	448	230	10	1	6,875
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	54, 55	156	90	49	31	26	8	..	..	360
17. Chronic Rheumatism, Gout .. .. .	57, 58	45	58	18	18	9	4	..	..	152
18. Diabetes Mellitus .. .. .	59	378	296	114	113	55	43	..	..	999
19. Acute and Chronic Alcoholism .. .. .	75	22	4	20	4	2	..	..	..	52
20. Other General Diseases .. .. .	*	365	306	160	115	75	50	1	..	1,072
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	80-83	68	29	18	17	9	3	..	..	144
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	82	1,094	942	334	337	199	113	..	2	3,021
23. Other Diseases of Nervous System and Sense Organs .. .. .	*	459	329	173	95	72	43	3	2	1,176
24. Diseases of the Heart .. .. .	90-95	4,584	3,173	1,414	857	594	442	4	6	11,074
25. Other Diseases of the Circulatory System .. .. .	96-103	960	959	295	198	114	98	1	1	2,626
26a. Acute Bronchitis .. .. .	106(a)(c)	112	41	19	22	6	10	1	1	211
26b. Chronic Bronchitis .. .. .	106(b)(d)	190	205	62	42	35	16	1	..	551
27. Pneumonia (all forms) .. .. .	107-109	1,238	1,067	396	331	249	151	5	4	3,441
28. Other Diseases of the Respiratory System .. .. .	104, 105, 110-114	227	347	171	102	81	31	1	..	960
29a. Diarrhœa and Enteritis (under two years of age) .. .. .	119	184	123	59	29	68	9	..	..	472
29b. Diarrhœa and Enteritis (two years and over) .. .. .	120	137	122	64	39	30	12	..	..	404
30. Appendicitis .. .. .	121	214	125	81	36	26	9	..	..	491
31a. Cirrhosis of the Liver .. .. .	124	93	94	38	17	15	10	..	..	267
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	182	137	61	52	31	14	..	..	477
32a. Hernia, Intestinal Obstruction .. .. .	122	208	136	81	68	29	27	..	1	550
32b. Other Diseases of the Digestive System .. .. .	*	329	235	131	78	63	33	..	2	871
33. Nephritis .. .. .	130-132	1,371	998	554	254	192	66	4	1	3,440
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	409	274	174	107	64	51	..	..	1,079
35a. Post-Abortive Sepsis .. .. .	140(a)	33	9	14	5	5	5	..	..	71
35b. Criminal Abortion .. .. .	140(b)	50	30	2	4	2	2	..	..	88
35c. Puerperal Septicæmia .. .. .	145	25	27	15	9	5	3	..	..	84
36. Other Diseases of Pregnancy and Labour .. .. .	141-144, 146-150	166	89	56	26	22	16	..	..	375
37. Diseases of the Skin, Bones, etc. .. .. .	151-156	157	82	51	18	18	12	1	..	339
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	157-161	1,271	807	517	209	238	129	3	..	3,174
39. Senility .. .. .	162	671	1,032	470	311	183	78	5	..	2,750
40. Suicide .. .. .	163-171	279	174	144	51	88	17	1	..	754
41. Homicide .. .. .	172-175	33	16	20	10	2	4	5	1	91
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	176-198	1,168	772	483	262	256	87	9	5	3,042
43. Non-specified and Ill-Defined Causes .. .. .	199-200	73	54	44	39	27	7	12	..	276
Total—Persons .. .. .	..	21,343	16,805	7,813	4,957	3,715	2,022	73	29	56,757

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89; No. 32b:—115-118, 123, 128, 129.

## D—CAUSES OF DEATH.—AUSTRALIA, 1928 TO 1932.

Abridged Classification.	General Classification Numbers.	1928.	1929.	1930.	1931.	1932.	1932— Rate per 1,000,000 Population.
1. Typhoid Fever .. .. .	1, 2	169	106	113	103	81	12
2. Typhus Fever .. .. .	3	5	..	2	1	5	1
3. Small-pox .. .. .	6	..	..	2	..	1	1
4. Measles .. .. .	7	201	143	146	45	35	5
5. Scarlet Fever .. .. .	8	131	101	79	74	106	16
6. Whooping Cough .. .. .	9	237	345	330	304	153	23
7. Diphtheria .. .. .	10	433	460	387	423	425	65
8a. Influenza—Pneumonic .. .. .	11(a)	547	646	137	586	195	30
8b. Influenza—Other .. .. .	11(b)	252	373	141	260	154	23
10. Tuberculosis of the Respiratory System .. .. .	23	3,202	3,002	2,850	2,823	2,661	406
11a. Tubercular Meningitis .. .. .	24	164	185	153	152	138	21
11b. Other Tuberculous Diseases .. .. .	25-32	277	277	255	192	205	31
12. Syphilis .. .. .	34	171	146	166	146	164	25
13. Malaria .. .. .	38	15	17	22	24	16	2
14. Other Infectious or Parasitic Diseases .. .. .	..	633	674	562	535	609	93
15. Cancer and other Malignant Tumours .. .. .	45-53	6,010	6,256	6,120	6,589	6,875	1,050
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	54, 55	333	332	349	345	360	55
17. Chronic Rheumatism, Gout .. .. .	57, 58	147	162	139	171	152	23
18. Diabetes Mellitus .. .. .	59	753	823	722	902	999	153
19. Acute and Chronic Alcoholism .. .. .	75	121	104	74	52	52	8
20. Other General Diseases .. .. .	..	1,084	1,131	1,093	1,102	1,072	164
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	80-83	181	174	142	169	144	22
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	82	3,022	3,017	2,810	2,884	3,021	461
23. Other Diseases of Nervous System and Sense Organs .. .. .	..	1,426	1,457	1,149	1,105	1,176	180
24. Diseases of the Heart .. .. .	90-95	8,737	9,281	8,626	10,382	11,074	1,691
25. Other Diseases of the Circulatory System .. .. .	96-103	2,174	2,453	2,646	2,537	2,626	401
26a. Acute Bronchitis .. .. .	106(a)(c)	260	307	215	226	211	32
26b. Chronic Bronchitis .. .. .	106(b)(d)	753	821	625	640	551	84
27. Pneumonia (all forms) .. .. .	107-109	4,685	4,948	3,328	3,795	3,441	525
28. Other Diseases of the Respiratory System .. .. .	104, 105, 110-114	1,030	1,073	956	1,008	960	146
29a. Diarrhœa and Enteritis (under two years of age) .. .. .	119	1,616	963	1,078	530	472	72
29b. Diarrhœa and Enteritis (two years and over) .. .. .	120	520	442	464	413	404	62
30. Appendicitis .. .. .	121	470	481	508	518	491	75
31a. Cirrhosis of the Liver .. .. .	124	339	301	276	252	267	41
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	398	440	462	422	477	73
32a. Hernia, Intestinal Obstruction .. .. .	122	539	583	560	523	550	84
32b. Other Diseases of the Digestive System .. .. .	*	909	843	791	832	871	133
33. Nephritis .. .. .	130-132	3,180	3,406	3,182	3,306	3,440	525
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	967	1,076	1,011	1,027	1,079	165
35a. Post-Abortive Sepsis .. .. .	140(a)	†	†	†	76	71	11
35b. Criminal Abortion .. .. .	140(b)	†	†	†	71	88	13
35c. Puerperal Septicæmia .. .. .	145	275	222	242	103	84	13
36. Other diseases of Pregnancy and Labour .. .. .	141-144, 146-150	527	436	438	400	375	57
37. Diseases of the Skin, Bones, etc. .. .. .	151-156	351	384	364	324	339	52
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	157-161	4,059	3,945	3,742	3,259	3,174	485
39. Senility .. .. .	162	3,196	3,532	3,071	2,750	2,750	420
40. Suicide .. .. .	163-171	777	785	943	827	754	115
41. Homicide .. .. .	172-175	111	118	103	128	91	14
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	176-198	3,379	3,550	3,356	2,937	3,042	464
43. Non-specified and Ill-Defined Causes .. .. .	199, 200	603	536	401	287	276	42
Total .. .. .	..	59,378	60,857	55,331	56,560	56,757	8,665

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89; No. 32b:—115-118, 123, 128, 129. † Not available, included in 35c and 36.

## E—CAUSES OF DEATH.—AUSTRALIA, NUMBERS AND RATES.

Abridged Classification.	General Classification-Numbers.	Number of Deaths.			Rate per 1,000,000 of Population.		
		1911-15.	1921-25.	1928-32.	1911-15.	1921-25.	1928-32.
1. Typhoid Fever .. .. .	1, 2	2,848	1,209	572	119	43	18
2. Typhus Fever .. .. .	3	..	4	13	..	..	..
3. Small-pox .. .. .	6	6	4	3	..	..	..
4. Measles .. .. .	7	1,505	582	570	63	20	18
5. Scarlet Fever .. .. .	8	237	235	491	10	8	15
6. Whooping Cough .. .. .	9	1,657	1,612	1,369	69	57	43
7. Diphtheria .. .. .	10	3,677	2,565	2,128	154	90	66
8a. Influenza—Pneumonic .. .. .	11(a)	1,894	1,808	2,111	79	64	66
8b. Influenza—Other .. .. .	11(b)		1,344	1,180		47	37
9. Plague .. .. .	14	1	72	..	3	..	..
10. Tuberculosis of the Respiratory System .. .. .	23	15,737	15,321	14,538	659	538	452
11a. Tubercular Meningitis .. .. .	24	1,156	876	792	48	31	25
11b. Other Tuberculous Diseases .. .. .	25-32	1,460	1,404	1,206	61	49	37
12. Syphilis .. .. .	34	837	632	793	35	22	24
13. Malaria .. .. .	38	112	150	94	5	5	3
14. Other Infectious or Parasitic Diseases .. .. .	*	2,820	3,063	3,013	118	108	94
15. Cancer and other Malignant Tumours .. .. .	45-53	17,838	25,794	31,850	746	907	991
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	54, 55	546	633	1,719	23	22	53
17. Chronic Rheumatism, Gout .. .. .	57, 58	552	862	771	23	30	24
18. Diabetes Mellitus .. .. .	59	2,322	3,355	4,199	97	118	131
19. Acute and Chronic Alcoholism .. .. .	75	920	763	403	38	27	12
20. Other General Diseases .. .. .	*	4,039	5,355	5,482	169	188	170
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	80-83	1,074	1,118	810	45	39	25
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	82	10,957	13,637	14,754	458	479	459
23. Other Diseases of Nervous System and Sense Organs .. .. .	*	12,550	10,323	6,313	525	363	196
24. Diseases of the Heart .. .. .	90-95	24,358	31,588	48,100	1,019	1,110	1,496
25. Other Diseases of the Circulatory System .. .. .	96-103	7,869	7,191	12,436	329	253	387
26a. Acute Bronchitis .. .. .	106(a)(c)	2,250	1,580	1,219	94	56	38
26b. Chronic Bronchitis .. .. .	106(b)(d)	4,962	4,053	3,390	208	142	105
27. Pneumonia (all forms) .. .. .	107-109	15,201	18,400	20,197	636	647	628
28. Other Diseases of the Respiratory System .. .. .	104, 105	4,583	5,781	5,027	192	203	156
29a. Diarrhœa and Enteritis (under two years of age) .. .. .	110-114	119	15,207	9,866	636	347	145
29b. Diarrhœa and Enteritis (two years and over) .. .. .	120	4,027	3,144	2,243	169	111	70
30. Appendicitis .. .. .	121	1,761	2,035	2,468	74	72	77
31a. Cirrhosis of the Liver .. .. .	124	1,932	1,531	1,435	81	54	45
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	1,445	1,796	2,199	60	63	68
32a. Hernia, Intestinal Obstruction .. .. .	122	2,336	2,648	2,755	98	93	86
32b. Other Diseases of the Digestive System .. .. .	*	3,968	4,053	4,246	166	142	132
33. Nephritis .. .. .	130-132	10,751	12,803	16,523	450	450	514
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	3,065	4,146	5,160	128	146	160
35a. Post-Abortive Sepsis .. .. .	140(a)	†	†	147†	†	†	5†
35b. Criminal Abortion .. .. .	140(b)	†	†	139†	†	†	5†
35c. Puerperal Septicæmia .. .. .	145	1,072	1,138	926	45	40	28
36. Other Diseases of Pregnancy and Labour .. .. .	141-144	2,060	2,321	2,176	86	82	69
37. Diseases of the Skin, Bones, etc. .. .. .	146-150	994	1,556	1,762	42	55	55
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	151-156	21,410	21,511	18,179	896	756	565
39. Senility .. .. .	162	20,904	20,429	15,299	875	718	476
40. Suicide .. .. .	163-171	3,123	3,106	4,086	131	109	127
41. Homicide .. .. .	172-175	446	439	551	19	15	17
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	176-198	14,842	13,875	16,264	621	488	506
43. Non-specified and Ill-Defined Causes .. .. .	199, 200	3,026	3,460	2,103	127	122	65
Total .. .. .	..	256,337	271,171	288,883	10,726	9,531	8,984

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89; No. 32b:—115-118, 123, 128, 129. † 1931 and 1932 only. ‡ Not available, included in 35c and 36.

13. Deaths from Specific Causes.—(i) *Typhoid Fever*. The number of deaths from typhoid fever declined from 169 in 1928 to 81 in 1932, the rate for the latter year being twelve per 1,000,000 living, and much lower than the average of 18 for the last five years. Of the 81 who died, 48 were males and 33 females. During the quinquennium 1911 to 1915 the death rate from typhoid fever was 119 per 1,000,000.

(ii) *Typhus*. Deaths from typhus have been rare in Australia. In 1932 five deaths were recorded—one in New South Wales, one in South Australia and three in Western Australia. Only one death, which occurred in Western Australia, was recorded during 1931. During 1930, two deaths were recorded from this cause, both of which occurred in Western Australia. In 1928, three deaths occurred in Queensland and two in Western Australia.

(iii) *Small-pox*. The number of deaths from small-pox in Australia is very small. During the five years under review only three deaths were recorded from this cause, one of which occurred in 1932 in Queensland and the other two in 1930 in Western Australia.

(iv) *Measles*. Of the deaths from measles the greatest number occurred during 1928, when 201 were registered, while the minimum was in 1932 with a total of 35 deaths. Of the 35 deaths during 1932, 17 were males and 18 females. The death rate for the last five years, viz., 18 per 1,000,000 was slightly less than that for the years 1921 to 1925, but much less than the 63 per 1,000,000 recorded in 1911 to 1915.

(v) *Scarlet Fever*. The number of deaths had decreased each year since 1928 until 1932 when it rose to 106 compared with 74 in 1931. The increase in 1932 was confined to females, there being 33 male and 73 female deaths in that year compared with 35 male and 39 female deaths in the previous year. Of the 106 deaths registered in 1932, 57 occurred in New South Wales and 38 in Victoria. The rate per 1,000,000 in 1928-32, viz., 15 was the highest for the three periods reviewed on the previous page. The rate for 1932 was 16.

(vi) *Whooping Cough*. During 1932, deaths from whooping cough numbered only 153 (71 males and 82 females) representing a death rate of 23 per 1,000,000 persons, which is little more than half the rate for the last five years. The death rate for this disease is almost invariably heavier for females than for males. For both sexes combined it has declined from 69 in 1911-15, to 43 per 1,000,000 in 1928-32.

(vii) *Diphtheria*. The number of deaths due to diphtheria was 425 in 1932. Of these deaths (representing a death rate of 65 per 1,000,000 persons) 227 were males and 198 females. The death rate is now less than half of that experienced during the five years ended 1915.

(viii) *Influenza*. The deaths from influenza during 1932 were little more than half the average of the years 1928 to 1932. Of the 349 deaths during 1932 from this disease, 195 were ascribed to pneumonic influenza and 154 to ordinary influenza.

(ix) *Plague*. Since 1911 deaths from this disease numbered 1 in 1912; 57 in 1921; 14 in 1922; and 1 in 1923.

(x) *Tuberculosis of the Respiratory System*. Of the various forms of tuberculosis prevalent in Australia, phthisis, or tuberculosis of the lungs, has attracted the most attention. The intimate relation, however, between tuberculosis of the lungs and of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for investigations concerning the age incidence and duration of this disease.

The decline in the toll levied by this disease on the community is plainly disclosed by the table on page (825), which shows how both the number of deaths and the death rate have declined since the period 1911 to 1915.

During 1932 there were 2,661 deaths (1,588 males and 1,073 females) from tuberculosis of the respiratory system, which compares favourably with the average of 2,981 for the preceding five years. The deaths in 1932 represented a rate of 406 per 1,000,000 persons.

(xia) *Tuberculosis of the Meninges*. The number of deaths ascribed to this cause in 1932 was 138, which is below the average for the preceding five years.



(xib) *Other Forms of Tuberculosis.* The deaths in 1932 include the following:—Tuberculosis of the intestines and peritoneum, 57; spinal column, 45; other bones and joints, 20; lymphatic system, 2; genito-urinary system, 28; other organs, 1; acute disseminated tuberculosis, 37; chronic disseminated tuberculosis, 1, and disseminated tuberculosis not specified as acute or chronic, 14.

(xic) *All Forms of Tuberculosis.*—(a) *General.* The total number of deaths in 1932 was 3,004, viz., 1,778 males and 1,226 females.

(b) *Ages at Death.* The following table shows the ages of these 3,004 persons. Corresponding figures are also given for the year 1911:—

**TUBERCULAR DISEASES.—DEATHS IN AGE-GROUPS, AUSTRALIA.**

Ages.	1911.			1932.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years .. ..	124	114	238	42	44	86
5 years and under 10 .. ..	30	31	61	15	26	41
10 " " 15 .. ..	44	42	86	12	21	33
15 " " 20 .. ..	70	148	218	38	73	111
20 " " 25 .. ..	168	260	428	113	193	306
25 " " 30 .. ..	219	255	474	149	140	289
30 " " 35 .. ..	220	206	426	155	158	313
35 " " 40 .. ..	187	176	363	180	173	353
40 " " 45 .. ..	246	140	386	198	99	297
45 " " 50 .. ..	223	100	323	178	94	272
50 " " 55 .. ..	164	49	213	214	51	265
55 " " 60 .. ..	140	49	189	174	49	223
60 " " 65 .. ..	89	43	132	123	42	165
65 " " 70 .. ..	64	37	101	93	34	127
70 " " 75 .. ..	42	19	61	62	19	81
75 " " 80 .. ..	15	6	21	26	5	31
80 " " over .. ..	7	6	13	5	5	10
Age unspecified .. ..	3	..	3	1	..	1
<b>Total .. ..</b>	<b>2,055</b>	<b>1,681</b>	<b>3,736</b>	<b>1,778</b>	<b>1,226</b>	<b>3,004</b>

(c) *Occupations at Death, Males.* A tabulation of occupations of the males who died from tubercular diseases and the percentage which each class bears on the total male deaths from these diseases in 1921, 1931 and 1932 is given hereunder:—

**OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASES—AUSTRALIA.**

Occupation Class.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1932.	1921.	1931.	1932.
Professional .. ..	167	107	110	7.69	5.83	6.19
Domestic .. ..	95	64	60	4.38	3.48	3.37
Commercial .. ..	292	270	162	13.45	14.71	9.11
Transport and Communication .. ..	165	170	153	7.60	9.26	8.61
Industrial .. ..	784	694	308	36.11	37.80	17.32
Agricultural, Pastoral, Mining, etc. .. ..	404	303	303	18.61	16.50	17.04
Indefinite .. ..	80	157	572(a)	3.68	8.55	32.17(a)
Dependent .. ..	184	71	110	8.48	3.87	6.19
<b>Total Male Deaths .. ..</b>	<b>2,171</b>	<b>1,836</b>	<b>1,778</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Includes 469 (26.37 per cent.) clerks, labourers, &c., not specified as belonging to any industry, which were formerly included under "Commercial" or "Industrial".

(d) *Length of Residence in Australia.* The length of residence in Australia of persons who died from tubercular diseases in 1932 is given in the next table.

**LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1932.**

Length of Residence in Australia.	Male.	Fem.	Total.	Length of Residence in Australia.			
				Male.	Fem.	Total.	
Born in Australia ..	1,296	1,065	2,361	Resident 10 years & under 15	35	37	72
Resident under 1 year ..	3	2	5	" 15 " " 20	43	22	65
" 1 year ..	2	1	3	" 20 " & over ..	253	53	306
" 2 years ..	5	..	5	Length of residence not stated	68	11	79
" 3 " ..	6	1	7				
" 4 " ..	12	4	16				
" 5 " and under 10	55	30	85	Total Deaths ..	1,778	1,226	3,004

(e) *Death Rates.* The following table and the table on page 819 show that among persons who have lived less than five years in Australia, 329 deaths occurred, and of these, 36, or 10.9 per cent., were due to tubercular diseases.

In order to show the prevalence of tuberculosis in the several States and the change in the incidence in recent years, the death rates from tubercular diseases in respect of the years 1911 and 1932 are given in the following table, together with the proportion which deaths from tuberculosis bear to 10,000 deaths from all causes:—

**TUBERCULOSIS (ALL FORMS).—DEATH RATES (a) AND PROPORTION OF TOTAL DEATHS.**

State or Territory.	Death Rate per 100,000 of Mean Population.					
	1911.			1932.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales .. ..	85	67	76	50	34	42
Victoria .. ..	101	97	99	60	45	53
Queensland .. ..	74	58	67	43	28	36
South Australia .. ..	81	91	86	51	43	47
Western Australia .. ..	84	71	78	69	34	52
Tasmania .. ..	90	82	86	56	63	60
Northern Territory .. ..	293	..	241	72	58	67
Federal Capital Territory .. ..	..	131	56	21	25	23
Australia .. ..	88	78	83	53	38	46

State or Territory.	Proportion per 10,000 Deaths from all Causes.					
	1911.			1932.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales .. ..	737	737	737	533	460	501
Victoria .. ..	801	936	862	596	530	565
Queensland .. ..	613	648	626	480	404	449
South Australia .. ..	775	995	877	585	520	555
Western Australia .. ..	718	870	770	672	468	595
Tasmania .. ..	839	854	846	569	751	653
Northern Territory .. ..	1,356	..	1,231	328	833	411
Federal Capital Territory .. ..	..	2,000	1,000	455	1,429	690
Australia .. ..	745	829	780	558	492	529

(a) Number of deaths from tuberculosis per 100,000 of mean population.

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a very favourable position as regards the death rate from this disease.

**TUBERCULOSIS.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.**

Country.	Year.	Respiratory System.	All Forms.	Country.	Year.	Respiratory System.	All Forms.
Queensland ..	1932	34	36	Scotland ..	1931	62	87
Union of South Africa (Whites) ..	1930	34	40	England and Wales ..	1931	74	90
New Zealand ..	1932	34	42	Great Britain and Northern Ireland ..	1931	73	90
New South Wales ..	1932	38	42	Belgium ..	1929	70	96
Australia ..	1932	41	46	Italy ..	1931	80	108
South Australia ..	1932	40	47	Sweden ..	1932	(a)	116
Western Australia ..	1932	48	52	Switzerland ..	1931	92	122
Victoria ..	1932	45	53	Northern Ireland ..	1931	90	122
Ceylon ..	1932	(a)	55	Spain ..	1930	100	123
Tasmania ..	1932	48	60	Irish Free State ..	1931	103	132
United States (Registration Area) ..	1931	60	68	Norway ..	1931	121	148
Canada (including Quebec) ..	1932	56	68	Czechoslovakia ..	1930	144	161
Denmark ..	1930	56	71	Greece ..	1930	131	162
Netherlands ..	1931	52	73	France ..	1929	142	166
Germany ..	1930	68	79	Japan ..	1931	136	186
Egypt ..	1927	66	85	Finland ..	1930	206	240

(a) Not available.

(xii) *Syphilis.*—In 1932, 164 persons—112 males and 52 females—died from syphilis. The rate per 1,000,000 persons was 25 in 1932 compared with average rates of 24, 22, and 35 for the year groups 1928–32; 1921–25 and 1911–15, respectively.

(xiii) *Malaria.* Deaths from malarial diseases are mainly confined to the tropical districts of Northern Queensland and Western Australia, and to the Northern Territory; 9 out of the 16 deaths registered in 1932 occurred in Queensland, 2 in New South Wales, 2 in Western Australia and 1 each in Northern Territory, South Australia and Victoria. The death rate was 3 per 1,000,000 for the quinquennium 1928–32, as compared with a rate of 5 for 1911 to 1915, and 1921 to 1925.

(xiv) *Other Infectious and Parasitic Diseases.* The deaths registered under this heading numbered 609 in 1932, including 75 from dysentery, erysipelas 39, lethargic encephalitis 36, acute poliomyelitis 96, meningococcal meningitis 29, tetanus 112, leprosy 7, purulent infection and septicæmia 102, hydatid cysts 48, and other infectious or parasitic diseases 65.

(xv) *Cancer and other Malignant Tumours.*—(a) *General.* The number of deaths from cancer increased continuously to 6,256 in 1929, but declined slightly to 6,120 in 1930, and rose again to 6,589 in 1931 and 6,875 in 1932. Of the deaths registered, 3,696 were of males, viz., 1,404 in New South Wales, 1,045 in Victoria, 514 in Queensland, 328 in South Australia, 276 in Western Australia, 119 in Tasmania, 9 in the Northern Territory and 1 in Federal Capital Territory; while 3,179 were of females, viz., 1,128 in New South Wales, 1,083 in Victoria, 358 in Queensland, 326 in South Australia, 172 in Western Australia, 111 in Tasmania and 1 in the Northern Territory.

(b) *Type and Seat of Disease.* Tables showing the type and seat of disease, in conjunction with age, and with conjugal condition, of the persons dying from cancer in 1932 will be found in Bulletin No. 50 of "Australian Demography." A summary regarding type and seat of disease for the year 1932 is given on the next page.

## DEATHS FROM CANCER.—TYPE AND SEAT OF DISEASE, AUSTRALIA, 1932.

Type of Disease.	Males.			Females.			Persons.		
	Males.	Females.	Persons.	Seat of Disease.	Males.	Females.	Persons.		
Cancer .. ..	413	324	737	Buccal Cavity and Pharynx ..	332	45	377		
Carcinoma—				Digestive Tract and Peritoneum ..	2,152	1,462	3,614		
Carcinoma Simplex	2,553	2,344	4,897	Respiratory Organs	230	63	293		
Epithelioma ..	171	71	242	Uterus .. ..	..	471	471		
Scirrhus .. ..	3	39	42	Other Female Genital Organs ..	..	199	199		
Rodent Ulcer ..	33	23	56	Breast .. ..	5	595	600		
Adeno-Carcinoma	37	50	87	Male Genito-Urinary Organs ..	535	..	535		
Colloid Carcinoma	2	1	3	Skin .. ..	138	80	218		
Paget's Disease ..	..	3	3	Other or Unspecified Organs ..	304	264	568		
Sarcoma—									
Sarcoma .. ..	189	122	311						
Myeloma .. ..	1	1	2						
Endothelioma ..	14	9	23						
Melanoma—									
Melanotic Sarcoma	20	11	31						
Melano-Carcinoma	6	4	10						
Embryonic Tumours—									
Hypernephroma	15	10	25						
Teratoma .. ..	4	..	4						
Malignant Disease ..	235	167	402						
<b>Total Deaths</b>	<b>3,696</b>	<b>3,179</b>	<b>6,875</b>	<b>Total Deaths</b>	<b>3,696</b>	<b>3,179</b>	<b>6,875</b>		

(c) *Ages at Death.* The ages of the persons who died from cancer in 1911 and 1932 are given in the following table, which shows that while the ages below 35 are not immune from the disease, the great majority of deaths occurred at ages from 35 upwards, the maximum being found in the age-group 65 to 70. The table also reveals the very great increase in numbers dying from cancer. The increase in the rate is shown in a succeeding table.

## DEATHS FROM CANCER.—AGES, AUSTRALIA.

Ages.	1911.			1932.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 15 years .. ..	21	8	29	27	15	42
15 years and under 20 ..	10	6	16	13	7	20
20 " " 25 ..	10	7	17	17	14	31
25 " " 30 ..	12	17	29	24	14	38
30 " " 35 ..	25	35	60	30	57	87
35 " " 40 ..	29	59	88	58	79	137
40 " " 45 ..	81	100	181	94	179	273
45 " " 50 ..	132	173	305	170	261	431
50 " " 55 ..	208	203	411	236	353	589
55 " " 60 ..	203	179	382	398	371	769
60 " " 65 ..	243	177	420	553	411	964
65 " " 70 ..	306	194	500	684	465	1,149
70 " " 75 ..	203	160	363	677	407	1,084
75 " " 80 ..	150	136	286	443	277	720
80 " " 85 ..	83	67	150	172	181	353
85 years and over ..	44	39	83	99	88	187
Unspecified .. ..	1	..	1	1	..	1
<b>Total Deaths</b> .. ..	<b>1,761</b>	<b>1,560</b>	<b>3,321</b>	<b>3,696</b>	<b>3,179</b>	<b>6,875</b>

(d) *Occupations.* A tabulation in summarized form of occupations of the males who died from cancer in 1921, 1931 and 1932, together with the percentage of each class on the total male deaths from this disease, is given hereunder:—

## OCCUPATION OF MALES WHO DIED FROM CANCER.—AUSTRALIA.

Occupation Class.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1932.	1921.	1931.	1932.
Professional .. ..	133	188	250	5.45	5.40	6.76
Domestic .. ..	76	97	102	3.11	2.78	2.76
Commercial .. ..	275	446	360	11.27	12.80	9.74
Transport and Communica- tion .. ..	212	295	285	8.69	8.47	7.71
Industrial .. ..	940	1,346	633	38.52	38.63	17.13
Agricultural, Pastoral, Mining, etc. .. ..	639	843	886	26.19	24.20	23.97
Indefinite .. ..	129	130	1,180a	5.29	3.73	31.93a
Dependent .. ..	36	139		1.48	3.99	
Total Male Deaths ..	2,440	3,484	3,696	100.00	100.00	100.00

(a) Includes 1,136 (30.74 per cent.) clerks, labourers, &c., not specified as belonging to any industry, which were formerly included under "Commercial" or "Industrial".

(e) *Death Rates.* The following table shows the death rates per 100,000 of mean population from cancer in each State for the years 1911 and 1932.

The substantial increase in the death rate since 1911 is reflected in both sexes and in all States.

## DEATHS FROM CANCER.—RATES.(a)

State or Territory.	1911.			1932.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales .. ..	77	71	74	109	91	100
Victoria .. ..	80	85	82	117	118	117
Queensland .. ..	71	56	64	100	79	90
South Australia .. ..	70	76	73	108	115	112
Western Australia .. ..	65	57	62	122	87	106
Tasmania .. ..	77	60	69	108	99	104
Northern Territory .. ..	37	..	30	323	58	222
Federal Capital Territory ..	99	..	56	21	..	12
Australia .. ..	75	72	74	111	99	105

(a) Number of Deaths from cancer per 100,000 of mean population.

(f) *Proportion of Total Deaths.* While the death rate from all causes has diminished substantially in recent years, the rate from cancer has risen almost continuously, the result being that out of 10,000 deaths from all causes, 1,211 were due to cancer in 1932, as against 693 per 10,000 total deaths in 1911.

## DEATHS FROM CANCER—PROPORTIONS ON 10,000 DEATHS.

State or Territory.	1911.			1932.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales .. ..	662	783	713	1,160	1,221	1,186
Victoria .. ..	637	819	719	1,161	1,387	1,266
Queensland .. ..	586	628	602	1,106	1,131	1,116
South Australia .. ..	675	828	745	1,246	1,402	1,319
Western Australia .. ..	557	700	605	1,197	1,220	1,206
Tasmania .. ..	723	629	680	1,092	1,191	1,137
Northern Territory .. ..	170	..	154	1,475	833	1,370
Federal Capital Territory .. ..	2,000	..	1,000	455	..	345
Australia .. ..	638	769	693	1,160	1,277	1,211

(g) *Comparison with Tuberculosis.* In recent years the death rate from tuberculosis has shown a tendency to decrease, while that from cancer has displayed an almost continuous increase. The table hereunder shows that for each of the periods under review the decline in the death rate from tuberculosis has been accompanied by an almost equal increase in the rate for cancer. Thus the death rate for tuberculosis declined by 38 while the rate for cancer increased by 36 per 100,000 population. This equal but opposite tendency may be demonstrated by stating that the death rate from tuberculosis and cancer combined remains almost constant from period to period, the figures being :— 1901–05, 152 per 100,000; 1906–10, 145; 1911–1915, 152; 1916–20, 154; 1921–25, 153; and 1928–32, 150.

## TUBERCULOSIS AND CANCER.—DEATH RATES(a)—AUSTRALIA.

Period.	Death Rate (a) from Tuberculosis.			Death Rate (a) from Cancer.		
	Males.	Females.	Total.	Males.	Females.	Total.
1901–05 .. ..	100	77	89	64	61	63
1906–10 .. ..	81	69	75	71	70	70
1911–15 .. ..	84	69	77	75	74	75
1916–20 .. ..	84	59	71	86	80	83
1921–25 .. ..	71	52	62	93	88	91
1928–32 .. ..	59	44	51	102	96	99

(a) Number of deaths per 100,000 of mean population.

(h) *Death Rates, Various Countries.* The following table shows the Australian death rate from cancer in comparison with that for other countries :—

## CANCER.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt .. ..	1927	20	New Zealand .. ..	1932	101
Greece .. ..	1930	36	<b>Australia</b> .. ..	<b>1932</b>	<b>105</b>
Japan .. ..	1931	68	Irish Free State .. ..	1931	111
Spain .. ..	1930	70	Czechoslovakia .. ..	1930	113
Finland .. ..	1930	72	Sweden .. ..	1930	123
Italy .. ..	1931	74	Netherlands .. ..	1931	124
Union of South Africa			Northern Ireland .. ..	1931	125
(Whites) .. ..	1930	83	Norway .. ..	1931	133
Ceylon .. ..	1932	83	Germany .. ..	1930	134
Belgium .. ..	1929	94	Switzerland .. ..	1931	139
Canada (including			Denmark .. ..	1930	143
Quebec) .. ..	1932	95	Great Britain and		
France .. ..	1929	95	Northern Ireland .. ..	1931	148
United States (Regis-			England and Wales .. ..	1931	148
tration Area) .. ..	1931	99	Scotland .. ..	1931	148

(xvi) *Tumours, Non-malignant or of Unspecified Nature.* The number of deaths in 1932 was 360, including 143 deaths from non-malignant tumours, viz.—female genital organs 74, brain 39, other organs 30; and 217 deaths from tumours of undetermined nature, viz.—female genital organs 7, brain 158, other organs 52. The rate per million was 55 for 1932 and 53 for the period 1928–32. Comparison with earlier periods is vitiated by the omission from this cause prior to 1928 of tumours of the brain.

(xvii) *Chronic Rheumatism, Gout.* Deaths from this cause in 1932 numbered 152, viz.—53 males and 99 females. The rate per million for 1928–32 was lower than for 1921–25, but higher than for 1911–15.

(xviii) *Diabetes Mellitus.* Table E, page 825, shows that both the number of deaths and the rate per million persons have been steadily increasing. The rate per million for 1928–32 was 131 as compared with 97 for 1911–15. In 1932, the number of deaths from this cause was 999, viz.—375 males, and 624 females—representing a rate of 153 per million persons.

(xix) *Acute and Chronic Alcoholism.* Deaths from this cause have been decreasing rapidly. The number of deaths in 1932 was 52, with a rate per million persons of only 8. The rate for the period 1911–15, was 38.

(xx) *Other General Diseases.* Under this head are included rheumatic fever, diseases of the thyroid gland, anæmia, leucæmia, and a number of less important diseases. For the number of deaths under each sub-head see Table F, page 841.

(xxi) *Locomotor Ataxy, General Paralysis of the Insane.* The number of deaths in 1932 was 144, viz.—locomotor ataxy 41 males, 7 females; general paralysis of the insane, 86 males, 10 females. The rate per million persons was 25 for the period 1928–32, as compared with 45 for the period 1911–15.

(xxii) *Cerebral Hæmorrhage, Embolism and Softening of the Brain.* The deaths under this heading have increased in number during the period under review. The figures for 1932 are made up as follows:—Cerebral hæmorrhage and apoplexy, 1,055 males, 1,115 females; cerebral embolism, 23 males, 45 females; cerebral thrombosis, 236 males, 298 females; softening of the brain, 22 males, 31 females; hemiplegia and paralysis without specified cause, 88 males, 111 females.

Cerebral hæmorrhage, etc., associated with arterio-sclerosis is not now included in this group but forms part of group (xxv.), q.v.

The total of the group, viz., 3,021, ranks seventh in magnitude of the causes shown on p. 825 and corresponds to a death rate of 461 per million.

(xxiii) *Other Diseases of Nervous System.* Deaths in this group have declined from a rate per million of 525 in 1911–15 to 196 in 1928–32. The number of deaths in 1932 was 1,176 representing a rate of 180 per million persons.

(xxiv) *Diseases of the Heart.* The number of deaths in 1932 was 11,074, viz., 6,253 males and 4,821 females. Of these deaths, 41 were attributed to pericarditis, 161 to acute infective endocarditis, 25 to other acute endocarditis, 397 to aortic valve disease, 769 to mitral valve disease, 85 to aortic and mitral valve disease, 193 to endocarditis not returned as acute or chronic, 719 to other and unspecified valve disease, 94 to acute myocarditis, 124 to fatty heart, 4,092 to other myocardial degeneration, 1,716 to myocarditis not returned as acute or chronic, 789 to diseases of coronary arteries, 623 to angina pectoris, 355 to disordered action of the heart, 80 to cardiac dilation (cause unspecified), and 811 to heart disease undefined. The sex and territorial distribution of the deaths will be found in the tables on pages 821 to 823. This class is the largest among causes of death, the death rate having grown from 1,019 per million in 1911–15 to 1,496 in 1928–32. The death rates and proportions per 10,000 deaths in 1932 were as follow:—

**DEATH RATES<sup>(a)</sup> FROM DISEASES OF THE HEART AND PROPORTION OF  
10,000 TOTAL DEATHS, AUSTRALIA, 1932.**

State or Territory.	Death Rates (a) from Diseases of the Heart.			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales ..	205	157	181	2,173	2,116	2,148
Victoria .. .. .	195	157	176	1,928	1,842	1,888
Queensland .. ..	159	131	146	1,762	1,880	1,810
South Australia ..	157	135	146	1,801	1,647	1,729
Western Australia ..	158	120	141	1,549	1,681	1,599
Tasmania .. .. .	211	188	199	2,128	2,253	2,186
Northern Territory ..	108	58	89	492	833	548
Federal Capital Territory ..	85	50	69	1,818	2,857	2,069
<b>Australia .. .. .</b>	<b>188</b>	<b>150</b>	<b>169</b>	<b>1,963</b>	<b>1,936</b>	<b>1,951</b>

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(xxv) *Other Diseases of the Circulatory System.* The principal cause of death under this head was arterio-sclerosis. In 1932 the number of deaths from arterio-sclerosis with record of cerebral vascular lesion (i.e., in association with cerebral hæmorrhage, etc.) was 1,242 and without such record, 914. For further particulars see Table F, p. 841.

(xxvii) *Acute Bronchitis.* Deaths from bronchitis are classified under the following headings :—(a) Acute, (b) chronic, (c) unspecified, under five years of age, and (d) unspecified, five years and over. For the purpose of the abridged classification, (a) and (c) are treated as “acute,” and (b) and (d) as “chronic” bronchitis. Acute bronchitis caused 211 deaths in 1932, viz., 103 males and 108 females.

(xxviii) *Chronic Bronchitis.* (See xxvii) The deaths from this cause in 1932 numbered 551, viz., 326 males and 225 females, which was below the average for the previous four years, and much lower than the average for previous periods.

(xxix) *Pneumonia (all forms).* The deaths from pneumonia (all forms) during 1932 were 3,441—1,960 males and 1,481 females—and were equivalent to a rate of 525 per million persons. The average rate for 1928–32 was 628, and for 1911–15 636 per million persons. The total of 3,441 deaths is made up of 1,515 from broncho-pneumonia, 17 from capillary bronchitis, 1,100 from lobar pneumonia and 899 from pneumonia, other and unspecified.

(xxx) *Other Diseases of the Respiratory System.* Deaths under this heading in 1928 numbered 1,030; in 1929, 1,073; in 1930, 956; in 1931, 1,008 and in 1932, 960. For causes of death included under this head see Table F, p. 841.

The experience of deaths from diseases of the respiratory system in 1932 was favourable, the number being 19 per cent. below the average of the previous five years. The death rate of 787 per million shows a gratifying decrease on those of 927, 1,048, and 1,130 for the respective periods 1928–32, 1921–25, and 1911–15.

(xxxi) *Diarrhœa and Enteritis (Children under two years only).* The number of deaths due to these causes was 472 in 1932, and was the lowest number recorded for many years. During 1932, 5,411 children died before reaching their second birthday, and of these 472, or 8.7 per cent., died from diarrhœa and enteritis. The ages of children dying from these diseases during the first year of life will be found on page 815.



The number of deaths (under 2 years of age), the death rates, and proportions of 10,000 deaths due to diarrhoea and enteritis for 1911-15, 1921-25, 1928-32, and 1932 are given below. Reference to the last four lines of the table will reveal the very satisfactory improvement in deaths due to these diseases.

DEATHS, DEATH RATES(a), ETC., DIARRHOEA AND ENTERITIS (UNDER 2 YEARS OF AGE).—AUSTRALIA, 1932.

State.	Number of Deaths from Diarrhoea and Enteritis. (Under 2 years of age.)			Death Rates (a) from Diarrhoea and Enteritis. (Under 2 years of age.)			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	105	79	184	8	6	7	87	86	86
Victoria ..	66	57	123	7	6	7	73	73	73
Queensland ..	35	24	59	7	5	6	75	76	76
South Australia ..	18	11	29	6	4	5	68	47	59
Western Australia	37	31	68	16	16	16	161	220	183
Tasmania ..	6	3	9	6	3	4	55	32	45
Federal Capital Territory ..	..	..	..	..	..	..	..	..	..
Australia, 1932 ..	267	205	472	8	6	7	84	82	83
Annual Average—									
1911-15 ..	1,687	1,354	3,041	68	59	64	569	627	593
1921-25 ..	1,114	859	1,973	38	31	35	362	366	364
1928-32 ..	528	404	932	16	13	14	162	160	161

(a) Number of deaths from these diseases per 100,000 of mean population.

(xxixb) *Diarrhoea and Enteritis (2 years and over)*. The number of deaths from the same causes in older ages, viz., 404, compared favourably with the average of 449 for the period 1928 to 1932.

(xxx) *Appendicitis and Typhlitis*. Deaths under this heading numbered 491 in 1932, including 310 males and 181 females. The death rate has remained fairly constant during the periods under review, being 74 per million in 1911-15, 72 in 1921-25, 77 in 1928-32, and 75 in 1932.

(xxxia) *Cirrhosis of the Liver*. The deaths from this cause during 1932 numbered 267, and included 36 deaths from alcoholic cirrhosis.

(xxxib) *Other Diseases of the Liver, and Biliary Calculi*. Under this heading are included deaths from acute yellow atrophy of the liver 20, from other diseases of the liver 46, from biliary calculi 170, and from other diseases of the gall bladder and ducts 241—giving a total of 477 for the group.

(xxxiiia) *Hernia, Intestinal Obstruction*. The deaths under this heading have not varied greatly from year to year, the number registered in 1932 being 550, viz., hernia, 173, and intestinal obstruction, 377.

(xxxiiib) *Other Diseases of the Digestive System*. For causes included, see Table F, p. 841. The total number of deaths in 1932 was 871.

(xxxiiic) *Acute and Chronic Nephritis*. Of the 3,440 deaths registered in 1932, 151 were ascribed to acute nephritis, and 3,017 to chronic nephritis. Nephritis is amongst the most prolific causes of death, and accounted in 1932 for a death rate of 525 per million persons. The death rate for the period 1928-32, viz., 514 per million, shows a considerable increase on the rates of 450 per million for the periods 1911-15 and 1921-25.

(xxxiv) *Other Diseases of the Genito-Urinary System.* This group of diseases accounted for 1,079 deaths in 1932, the most frequent cause being diseases of the prostate with 468 deaths. For further particulars see Table F, p. 841.

(xxxv) *Puerperal Septicæmia* (including Post-Abortive Sepsis, 35A, but excluding Criminal Abortion, 35B). The 155 deaths from puerperal septicæmia during 1932 showed a decrease from the average of the previous five years. The rate was 1.40 per 1,000 live births. The corresponding rates during the preceding five years were:—1927, 2.15; 1928, 2.05; 1929, 1.71, 1930, 1.88; and 1931, 1.51. It is probable that some of the deaths now included under "Criminal Abortion" and excluded from figures affecting the rate for 1932, may have been classified with puerperal septicæmia in previous years. The rate in 1932 per 1,000 live births of 243 deaths from puerperal septicæmia, including criminal abortion, was 2.19. The 243 deaths mentioned above were made up as follows:—Post-abortive sepsis 71, criminal abortion 88, puerperal septicæmia 84. The following table shows the death rate per 1,000 live births from puerperal causes in various countries.

#### CHILDBIRTH.—DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES.

Country.	Year.	Rates per 1,000 Live Births from—		
		Puerperal Sepsis.	Other Puerperal Causes.	All Puerperal Causes.
Japan .. .. .	1931	0.73	1.91	2.64
Sweden .. .. .	1932	1.01	1.65	2.66
Norway .. .. .	1931	1.11	1.59	2.70
Italy .. .. .	1931	0.90	1.88	2.78
France .. .. .	1929	1.17	1.78	2.95
Netherlands .. .. .	1931	1.01	2.15	3.16
Spain .. .. .	1930	2.05	1.57	3.62
Hungary .. .. .	1931	2.07	1.59	3.66
Switzerland .. .. .	1930	1.88	1.80	3.68
Egypt .. .. .	1927	1.52	2.28	3.80
Denmark .. .. .	1930	1.18	2.65	3.83
Western Australia .. .. .	1932	1.26	2.76	4.02
New Zealand .. .. .	1932	1.51	2.55	4.06
Czechoslovakia .. .. .	1930	2.26	1.81	4.07
England and Wales .. .. .	1931	1.66	2.46	4.12
Irish Free State .. .. .	1931	1.16	3.15	4.31
Great Britain and Northern Ireland .. .. .	1931	1.73	2.64	4.37
Queensland .. .. .	1932	1.67	3.34	5.01
Canada (including Quebec) .. .. .	1932	2.85	2.17	5.02
Northern Ireland .. .. .	1931	1.67	3.47	5.14
South Australia .. .. .	1932	1.65	3.52	5.17
Union of South Africa (Whites) .. .. .	1930	2.50	2.76	5.26
Germany .. .. .	1930	2.75	2.63	5.38
<b>Australia .. .. .</b>	<b>1932</b>	<b>1.40</b>	<b>4.17</b>	<b>5.57</b>
Victoria .. .. .	1932	1.21	4.33	5.64
Greece .. .. .	1930	3.11	2.65	5.76
Tasmania .. .. .	1932	1.79	4.01	5.80
Scotland .. .. .	1931	2.20	3.70	5.90
New South Wales .. .. .	1932	1.30	4.81	6.11
Belgium .. .. .	1929	3.54	2.70	6.24
United States (Registration Area) .. .. .	1931	2.61	4.22	6.83
Ceylon .. .. .	1927	6.48	11.02	17.50

(xxxvi) *Other Diseases of Pregnancy and Labour.* The deaths under this heading numbered 527 in 1928; 436 in 1929; 438 in 1930; 400 in 1931, and 375 in 1932. Included in the 375 deaths in 1932 were the following:—Abortion not returned as septic, 23; ectopic gestation, 31; other accidents of pregnancy, 6; puerperal hæmorrhage, 71; puerperal albuminuria and convulsions, 117; other toxæmias of pregnancy, 26; phlegmasia alba dolens, embolism or sudden death, 37; other accidents of childbirth, 61; other or unspecified conditions of the puerperal state, 3.

(xxxvii) *All Puerperal Causes.* The 618 deaths in 1932 under the two preceding headings correspond to a death rate of 19 per 100,000 females. It may be expressed in other terms by stating that 1 of every 178 women confined in 1932 died from puerperal causes. The corresponding ratios for married women were 1 of every 193, and for single women 1 of every 68. More detailed information will be found in a series of tables in Bulletin No. 50 "Australian Demography."

A tabulation of these causes according to age at death for married and single women separately will be found in the Bulletin referred to.

The total number of children left by the married mothers was 1,601, an average of 3.0 children per mother.

Twenty-eight of the mothers who died had been married less than one year, 51 between one and two years, and 33 between two and three years. The duration of marriage ranged up to 29 years, apart from 7 cases in which the date of marriage was not stated. A tabulation, distinguishing the ages at marriage, will be found in Bulletin, No. 50 "Australian Demography," which also includes a table showing in combination the duration of marriage and previous issue.

(xxvii) *Diseases of the Skin, Bones, etc.* The number of deaths in 1932 was 339, made up as follows:—Carbuncle 49, cellulitis 91, other diseases of the skin and annexa 53 osteomyelitis 99, other diseases of the bones (tuberculosis and rheumatism excepted) 19, diseases of the joints and other organs of locomotion 28.

(xxxviii) *Congenital Malformation, Debility, and Premature Birth.* The deaths under this heading in 1932 numbered 3,174, of which 3,081 were of children under one year of age. Of the deaths of children under one year of age 67 per cent. were due to those causes. The number of deaths for 1932 is given in the following table:—

**DEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATION, 1932.**

State or Territory.	Congenital Malformation.			Premature Birth and Injury at Birth.			Congenital Debility and other diseases peculiar to early infancy.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	130	108	238	451	327	778	150	105	255
Victoria ..	73	61	134	306	163	469	116	88	204
Queensland ..	63	36	99	181	124	305	62	51	113
South Australia	24	15	39	60	61	121	32	17	49
Western Australia	31	21	52	73	66	139	30	17	47
Tasmania ..	11	9	20	36	33	69	25	15	40
Northern Territory	..	..	..	..	..	..	2	1	3
Federal Capital Territory ..	..	..	..	..	..	..	..	..	..
Australia ..	332	250	582	1,107	774	1,881	417	294	711
Number of deaths under one year	281	208	489	1,107	774	1,881	417	294	711
Number of deaths under one year per 1,000 births	4.93	3.86	4.40	19.43	14.35	16.95	7.32	5.45	6.41

(xxxix) *Senility.* In 1932, 2,750 deaths were attributed to this cause, as follows:—1,389 males and 1,361 females.

Of the deaths described as due to senility, 9 males and 7 females were stated to be aged 100 years or over.

The death rate from senility in 1932 was 420 per million. For the three quinquennia tabulated on page 825 the rate has declined from 875 per million in 1911-15 to 718 in 1921-25 and to 476 in 1928-32.

(x1) *Suicide.—(a) General.* Deaths by suicide have shown an increase each year since 1922 until 1930 followed by a decrease in 1931 and 1932. The number of suicides in 1926 was 711, viz., 583 males and 128 females; in 1927, 740, viz., 598 males, and 142 females; in 1928, 777, viz., 635 males and 142 females; in 1929, 785, viz., 644 males and 141 females; in 1930, 943, viz., 791 males and 152 females; in 1931, 827, viz., 689 males and 138 females; and in 1932, 754, viz., 598 males and 156 females.

(b) *Modes Adopted.* The modes adopted by persons who committed suicide in the years 1926 to 1932 were as follow :—

**SUICIDES, MODES ADOPTED.—AUSTRALIA.**

Mode of Death.	Males.			Females.			Persons.		
	Average of 5 years, 1926-30.	1931.	1932.	Average of 5 years, 1926-30.	1931.	1932.	Average of 5 years, 1926-30.	1931.	1932.
Poisoning .. .. .	156	148	127	62	42	70	218	190	197
Poisonous gas .. .. .	25	39	31	9	14	24	34	53	55
Hanging or Strangulation .. .. .	93	94	83	22	13	15	115	107	98
Drowning .. .. .	41	49	45	18	34	23	59	83	68
Firearms .. .. .	197	231	169	7	16	5	204	247	174
Cutting or piercing Instruments .. .. .	104	100	97	12	7	9	116	107	106
Jumping from a high place .. .. .	9	6	19	4	5	5	13	11	24
Crushing .. .. .	15	6	14	4	2	1	19	8	15
Other Modes .. .. .	10	16	13	3	5	4	13	21	17
<b>Total .. .. .</b>	<b>650</b>	<b>689</b>	<b>598</b>	<b>141</b>	<b>138</b>	<b>156</b>	<b>791</b>	<b>827</b>	<b>754</b>

(c) *Death Rates.* The death rates from suicide and the proportion per 10,000 of total deaths are given in the following table for 1932 : corresponding rates for the periods 1911-15, 1921-25, 1926-30 and 1931, are shown at the foot of the table :—

**SUICIDE.—DEATHS, DEATH RATES(a), AND PROPORTION OF TOTAL DEATHS, 1932.**

State or Territory.	Number of Deaths.			Death Rates (a) from Suicide.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	220	59	279	17	5	11	182	64	131
Victoria .. .. .	135	39	174	15	4	10	150	50	104
Queensland .. .. .	119	25	144	23	6	15	256	79	184
South Australia	38	13	51	13	5	9	144	56	103
Western Australia	74	14	88	33	7	21	321	99	237
Tasmania .. .. .	11	6	17	10	5	8	101	64	84
Northern Territory	1	..	1	36	..	23	164	..	137
Federal Capital Territory .. .. .	..	..	..	..	..	..	..	..	..
<b>Australia—1932</b>	<b>598</b>	<b>156</b>	<b>754</b>	<b>18</b>	<b>5</b>	<b>12</b>	<b>188</b>	<b>63</b>	<b>133</b>
„ 1931	689	138	827	21	4	13	217	56	146
Average—1926-30	650	141	791	20	5	13	198	56	136
„ 1921-25	509	112	621	18	4	11	166	48	114
„ 1911-15	509	115	624	21	5	13	172	53	122

(a) Number of deaths from suicide per 100,000 of mean population.

(d) *Ages.* From the following table, which shows the ages of the persons who committed suicide in 1932, it will be seen that both extreme youth and extreme old age are represented :—

## AGES OF PERSONS WHO COMMITTED SUICIDE.—AUSTRALIA, 1932.

Ages.	M.	F.	Total.	Ages.	M.	F.	Total.
10 years and under 15	1	..	1	60 years and under 65	62	6	68
15 " " 20	11	11	22	65 " " 70	34	5	39
20 " " 25	31	12	43	70 " " 75	27	3	30
25 " " 30	46	15	61	75 " " 80	15	3	18
30 " " 35	38	12	50	80 " " 85	6	..	6
35 " " 40	55	21	76	85 " " 90	1	..	1
40 " " 45	60	20	80	90 " " 95	..	..	..
45 " " 50	76	16	92	95 " " 100	..	..	..
50 " " 55	73	17	90	Not stated	..	..	..
55 " " 60	59	15	74	Total Deaths ..	598	156	754

(e) *Occupations of Males.* The next table gives the occupations of the males who committed suicide in 1921, 1931 and 1932 :—

## OCCUPATIONS OF MALES WHO COMMITTED SUICIDE.—AUSTRALIA.

Occupation Class.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1932.	1921.	1931.	1932.
Professional .. ..	32	29	24	6.27	4.21	4.01
Domestic .. ..	20	22	16	3.92	3.19	2.68
Commercial .. ..	81	106	79	15.88	15.38	13.21
Transport and Communica- tion .. ..	42	52	35	8.24	7.55	5.85
Industrial .. ..	180	256	82	35.29	37.16	13.71
Agricultural, Pastoral, Min- ing, etc. .. ..	131	182	152	25.69	26.41	25.42
Indefinite .. ..	21	39	206a	4.12	5.66	34.45a
Dependent .. ..	3	3	4	0.59	0.44	0.67
Total Male Deaths ..	510	689	598	100.00	100.00	100.00

(a) Includes 165 (27.59 per cent.) clerks, labourers, etc., not specified as belonging to any industry which were formerly included under "Commercial" or "Industrial".

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a fairly favourable position as regards the death rate from suicide.

## SUICIDE.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt .. ..	1927	3.2	Great Britain and Nor- thern Ireland ..	1931	12.4
Spain .. ..	1930	3.6	England and Wales ..	1931	12.9
Irish Free State ..	1931	3.7	Queensland ..	1932	14.8
Northern Ireland ..	1931	5.0	Belgium .. ..	1929	15.5
Greece .. ..	1930	5.1	Sweden .. ..	1930	15.8
Norway .. ..	1931	6.9	New Zealand ..	1932	16.5
Tasmania .. ..	1932	7.7	United States ..	1931	16.8
Netherlands .. ..	1931	8.4	Denmark .. ..	1930	17.0
South Australia ..	1932	8.7	France .. ..	1929	18.4
Victoria .. ..	1932	9.6	Western Australia ..	1932	20.8
Italy .. ..	1931	10.0	Japan .. ..	1931	22.0
Canada .. ..	1932	10.0	Switzerland ..	1931	24.8
Scotland .. ..	1931	10.0	Germany .. ..	1930	28.0
New South Wales ..	1932	11.0	Czechoslovakia ..	1930	29.9
Australia .. ..	1932	11.5			
Union of South Africa (a) ..	1930	11.8			

(a) White population only.

(xli) *Homicide*. Deaths from homicide in 1932 numbered 91, this figure being only 65 per cent. of the average for the previous five years. See paragraph (xliia).

(xlii) *Accidental or Violent Deaths (except Suicide and Homicide)*. Deaths from accidents in 1932 numbered 3,042, compared with an average of 3,252 for the previous five years. Of the deaths in 1932, 1 168 occurred in New South Wales; 772 in Victoria; 483 in Queensland; 262 in South Australia; 256 in Western Australia; 87 in Tasmania; 9 in Northern Territory; and 5 in the Federal Capital Territory. See paragraph (xliia).

(xliia) *Accidental or Violent Deaths (including Homicide and Suicide)*. The following table shows the various kinds of violent deaths, including homicides and suicides, recorded in Australia for the year 1932.

DEATHS FROM EXTERNAL VIOLENCE.—AUSTRALIA, 1932.

Cause of Death.	Males.	Females.	Persons.
Suicide (see paragraph (xl)) .. .. .	598	156	754
Infanticide (murder of children under 1 year) ..	5	5	10
Homicide by firearms .. .. .	20	10	30
Homicide by cutting or piercing instruments ..	11	8	19
Homicide by other means .. .. .	27	5	32
<b>Homicide, total .. .. .</b>	<b>63</b>	<b>28</b>	<b>91</b>
Poisoning by venomous animals—			
(a) Snakebite .. .. .	10	3	13
(b) Other .. .. .	2	1	3
Poisoning by food .. .. .	16	6	22
Accidental absorption of irrespirable or poisonous gas .. .. .	11	6	17
Other acute accidental poisonings (gas excepted) ..	20	15	35
Conflagration .. .. .	25	5	30
Accidental burns (conflagration excepted) ..	109	90	199
Accidental mechanical suffocation .. .. .	34	27	61
Accidental drowning .. .. .	278	58	336
Accidental injury by firearms .. .. .	81	6	87
Accidental injury by cutting or piercing instruments	6	..	6
Accidental Injury by Falling, Crushing, etc.—			
In Mines and Quarries .. .. .	58	..	58
By Machinery .. .. .	42	3	45
Connected with Methods of Transport—			
Railways .. .. .	149	13	162
Tramways .. .. .	33	8	41
Automobiles .. .. .	619	181	800
Other land vehicles .. .. .	149	23	172
Transport by water .. .. .	12	..	12
Transport by air .. .. .	8	..	8
Fall not otherwise specified .. .. .	229	157	386
Other crushings .. .. .	102	3	105
Cataclysm .. .. .	..	1	1
Injuries by animals (not poisoning) .. .. .	25	7	32
Starvation, thirst, fatigue .. .. .	14	1	15
Excessive cold .. .. .	4	1	5
Excessive heat .. .. .	58	29	87
Lightning .. .. .	9	1	10
Other accidental electric shocks .. .. .	29	4	33
Other and unstated forms of accidental violence—			
Inattention at birth .. .. .	..	2	2
Other .. .. .	83	21	104
Violent deaths of unstated nature (open verdict)—			
Drowning .. .. .	63	23	86
Firearms .. .. .	14	2	16
Fall .. .. .	3	..	3
Crushing .. .. .	3	2	5
Other .. .. .	27	9	36
War wounds .. .. .	6	..	6
Capital punishment .. .. .	3	..	3
<b>External Violence, excluding Suicide and Homicide</b>	<b>2,334</b>	<b>708</b>	<b>3,042</b>
<b>Total Deaths from External Violence .. .. .</b>	<b>2,995</b>	<b>892</b>	<b>3,887</b>

The following table of death rates per million of mean population reveals for External Violence (excluding Suicide and Homicide), i.e., "Accidents", a decrease to 1921-25, but an increase in the rates for 1926-30 to which the growth of automobile accidents has contributed very largely. The rates for 1931 and 1932, however, indicate favorable progress.

## DEATH RATES (a) ETC., EXTERNAL VIOLENCE.—AUSTRALIA.

Period.	Death Rates (a) from Homicide.			Death Rates (a) from External Violence excluding Suicide and Homicide.			Death Rates (a) from all External Violence.			All External Violence Proportion of 10,000 Deaths.
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	
1932 ..	19	9	14	700	220	464	898	277	593	685
1931 ..	25	14	20	690	204	452	923	261	599	688
1926-30 ..	19	15	17	843	240	549	1,070	300	690	746
1921-25 ..	17	13	15	753	211	488	950	260	610	643
1911-15 ..	21	16	19	948	268	621	1,170	330	770	718

(a) Number of Deaths per 1,000,000 of Mean Population.

(xliii) *Unspecified or Ill-defined Diseases.* The number of deaths included under this heading was 603 in 1928, 536 in 1929, 401 in 1930, 287 in 1931, and 276 in 1932, of which 209 were males and 67 females. The detailed classification shows these ill-defined diseases under two headings—sudden death, including syncope; and unspecified or ill-defined causes, of which the following are specimens:—Heart failure, asthenia, anasarca, atrophy, exhaustion, dropsy, ascites, and general œdema, etc. In 1932, the number of deaths which came under the first of these categories was 26, and under the second, 250. It is inevitable that cases will occur regarding which the available information is insufficient to permit of a clear definition of the fatal disease in the certificate of death. In the majority of cases, however, there is little doubt that more satisfactory certificates might have been given.

(xliv) "*Other Diseases.*" The abridged classification of causes of death used in Tables A to E in the preceding pages differs from that used in Year Books previous to No. 25 in that no residue of "other diseases" is shown at the foot. The items are ranged in classes or groups of classes and each class or group of classes is made complete by the addition of an "other diseases" item for that class or group of classes. These "other diseases" items are expanded into their constituent causes in the following table, viz. :—

## F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1932.

Causes.	G.C.N. (a)	M.	F.	Total.
14. OTHER INFECTIOUS OR PARASITIC DISEASES.				
Dysentery—				
Amœbic .. .. .	13a	2	1	3
Bacillary .. .. .	13b	28	16	44
Other .. .. .	13c	12	16	28
Erysipelas .. .. .	15	15	24	39
Acute Poliomyelitis .. .. .	16	53	43	96
Encephalitis Lethargica .. .. .	17	17	19	36
Cerebrospinal Fever .. .. .	18	19	10	29
Anthrax .. .. .	20	1	..	1
Tetanus .. .. .	22	88	24	112
Leprosy .. .. .	33	6	1	7
Other Venereal Diseases .. .. .	35	2	2	4
Purulent Infection and Septicæmia .. .. .	36	67	35	102
Other Diseases due to Protozoa .. .. .	39	2	1	3
Ankylostomiasis .. .. .	40	2	4	6

(a) G.C.N. = General Classification Number.

F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1932—*continued.*

Causes.	G.C.N. (a)	M.	F.	Total.
<b>14. OTHER INFECTIOUS OR PARASITIC DISEASES—<i>contd.</i></b>				
<b>Hydatid Cysts—</b>				
Liver .. .. .	41a	20	9	29
Other Organs .. .. .	41b	11	8	19
Other Diseases due to Helminths .. .. .	42	2	2	4
Mycoses .. .. .	43	7	4	11
Mumps .. .. .	44a	1	4	5
Other .. .. .	44b	16	15	31
<b>20. OTHER GENERAL DISEASES.</b>				
Rheumatic Fever .. .. .	56	107	100	207
Scurvy .. .. .	60	..	..	..
Beri-beri .. .. .	61	3	..	3
Pellagra .. .. .	62	1	..	1
Rickets .. .. .	63	3	..	3
Osteomalacia .. .. .	64	..	..	..
Diseases of the Pituitary Gland .. .. .	65	1	2	3
<b>Diseases of the Thyroid and Parathyroid Glands—</b>				
Exophthalmic Goitre .. .. .	66a	17	111	128
Other Diseases of Thyroid Gland .. .. .	66b	6	41	47
Diseases of Parathyroid Gland .. .. .	66c	3	3	6
Diseases of the Thymus Gland .. .. .	67	13	6	19
Diseases of the Adrenals (Addison's Disease) .. .. .	68	15	16	31
Other General Diseases .. .. .	69	10	17	27
Hæmorrhagic Conditions .. .. .	70	17	19	36
<b>Anæmia, Chlorosis—</b>				
Pernicious .. .. .	71a	133	155	288
Others .. .. .	71b	15	15	30
<b>Leucæmia, Lymphadenoma—</b>				
Leucæmia .. .. .	72a	72	59	131
Alucæmia (Lymphadenoma) .. .. .	72b	34	25	59
Diseases of the Spleen .. .. .	73	14	14	28
Other Diseases of the Blood and Blood-forming Organs .. .. .	74	3	3	6
<b>Chronic Poisoning by Mineral Substances—</b>				
Chronic Lead Poisoning .. .. .	77a	12	7	19
Other .. .. .	77b	..	..	..
<b>23. OTHER DISEASES OF NERVOUS SYSTEM AND SENSE ORGANS.</b>				
<b>Encephalitis (not epidemic)—</b>				
Cerebral Abscess .. .. .	78a	34	14	48
Others .. .. .	78b	22	19	41
<b>Simple Meningitis—</b>				
Simple Meningitis .. .. .	79a	97	53	150
Non-Epidemic Cerebro-Spinal Meningitis .. .. .	79b	13	9	22
Other Diseases of the Spinal Cord .. .. .	81	98	76	174
Other Forms of Insanity .. .. .	84	52	56	108
Epilepsy .. .. .	85	136	75	211
Convulsions of Infants under Five years of Age .. .. .	86	17	27	44
<b>Other Diseases of the Nervous System—</b>				
Chorea .. .. .	87a	2	3	5
Neuralgia and Neuritis .. .. .	87b	8	9	17
Paralysis Agitans .. .. .	87c	62	55	117
Disseminated Sclerosis .. .. .	87d	37	29	66
Idiocy, Imbecility .. .. .	87e	8	3	11
Other Diseases .. .. .	87f	27	31	58
Diseases of the Eye and Annexa .. .. .	88	2	1	3
Diseases of the Ear and Mastoid Sinus .. .. .	89	68	33	101

(a) G.C.N. = General Classification Number.



F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1932—*continued.*

Causes.	G.C.N. (a)	M.	F.	Total.
<b>25. OTHER DISEASES OF THE CIRCULATORY SYSTEM.</b>				
Aneurysm (other than of Heart) .. .. .	96	166	51	217
Arterio-sclerosis (of coronary arteries excepted)—				
With record of Cerebro-Vascular Lesion .. .. .	97a	581	661	1242
Without record of Cerebro-Vascular Lesion .. .. .	97b	521	393	914
Gangrene .. .. .	98	40	33	73
Other Diseases of the Arteries .. .. .	99	41	24	65
Diseases of the Veins (Varices, Hæmorrhoids, Phlebitis, etc.) .. .. .	100	15	20	35
Diseases of the Lymphatic System, Lymphangitis, etc.	101	4	7	11
Abnormalities of Blood Pressure .. .. .	102	21	37	58
Other Diseases of the Circulatory System .. .. .	103	4	7	11
<b>28. OTHER DISEASES OF THE RESPIRATORY SYSTEM.</b>				
Diseases of the Nasal Fossæ and Annexa .. .. .	104	22	11	33
Diseases of the Larynx .. .. .	105	18	11	29
Pleurisy .. .. .	110	107	53	160
Congestion, Hæmorrhagic Infarction of Lung .. .. .	111	145	158	303
Asthma .. .. .	112	81	54	135
Pulmonary Emphysema .. .. .	113	8	1	9
Other Diseases of the Respiratory System, Tuberculosis excepted—				
Chronic Interstitial Pneumonia .. .. .	114a	218	12	230
Gangrene of the Lung .. .. .	114b	8	1	9
Other Diseases .. .. .	114c	33	19	52
<b>32B. OTHER DISEASES OF THE DIGESTIVE SYSTEM.</b>				
Diseases of the Buccal Cavity, Pharynx, etc.—				
Buccal Cavity and Annexa .. .. .	115a	23	17	40
Pharynx and Tonsils .. .. .	115b	55	59	114
Diseases of the Oesophagus .. .. .	116	3	6	9
Ulcer of the Stomach or Duodenum—				
Stomach .. .. .	117a	202	55	257
Duodenum .. .. .	117b	125	28	153
Other Diseases of the Stomach (Cancer excepted) .. .. .	118	48	54	102
Other Diseases of the Intestines .. .. .	123	36	28	64
Diseases of the Pancreas .. .. .	128	29	33	62
Peritonitis (without specified cause) .. .. .	129	33	37	70
<b>34. OTHER DISEASES OF THE GENITO-URINARY SYSTEM.</b>				
Other Diseases of the Kidney and Annexa .. .. .	133	159	133	292
Calculi of the Urinary Passages .. .. .	134	51	23	74
Diseases of the Bladder .. .. .	135	52	17	69
Diseases of the Urethra, Urinary Abscess, etc. .. .. .	136	23	2	25
Diseases of the Prostate .. .. .	137	468	..	468
Diseases of the Male Genital Organs, not stated as Venereal .. .. .	138	1	..	1
Diseases of the Female Genital Organs, not stated as Venereal—				
Ovary, Fallopian Tubes and Parametrium .. .. .	139a	..	106	106
Uterus .. .. .	139b	..	40	40
Others .. .. .	139d	..	4	4

(a) G.C.N.—General Classification Number.

14. Causes of Deaths in Classes.—The figures in the preceding sub-sections relate to specific causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under eighteen general headings adopted by the compilers of the International Nomenclature is, however, shown in

the following table, together with the death rates and proportions on total deaths pertaining to those classes. A further table furnishes the death rates for the quinquennia 1911-15, 1921-25 and 1926-30:—

DEATHS, DEATH RATES(a), ETC., IN CLASSES.—AUSTRALIA, 1932.

Class.	Total Deaths.			Deaths Rates.(a)			Proportion of 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases	2,856	2,092	4,948	85	65	76	896	840	872
2. Cancer and Other Tumours	3,847	3,388	7,235	115	105	110	1,268	1,361	1,275
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases	607	1,019	1,626	18	32	25	191	409	286
4. Diseases of the Blood and Blood-forming Organs	288	290	578	9	9	9	90	116	102
5. Chronic Poisonings and Intoxications	59	12	71	2	1	1	19	5	13
6. Diseases of the Nervous System and of the Organs of Sense	2,231	2,110	4,341	67	66	66	700	848	765
7. Diseases of the Circulatory System	7,646	6,054	13,700	229	188	209	2,400	2,432	2,414
8. Diseases of the Respiratory System	3,029	2,134	5,163	91	66	79	951	857	909
9. Diseases of the Digestive System	1,996	1,536	3,532	60	48	54	626	617	622
10. Diseases of the Genito-Urinary System and Annexa	2,642	1,877	4,519	79	58	69	829	754	796
11. Pregnancy, Labour and Puerperal State	..	618	618	..	19	9	..	248	109
12. Diseases of the Skin and of the Cellular Tissue	107	86	193	3	3	3	34	35	34
13. Diseases of the Bones and Organs of Locomotion	103	43	146	3	1	2	32	17	26
14. Congenital Malformations	332	250	582	10	8	9	104	100	102
15. Early Infancy	1,524	1,068	2,592	46	33	40	478	429	457
16. Old Age	1,389	1,361	2,750	42	42	42	436	547	484
17. External Causes	2,995	892	3,887	90	28	59	940	358	685
18. Causes of Death not Determined	209	67	276	6	2	4	66	27	49
Total .. .. .	31,860	24,897	56,757	955	774	866	10,000	10,000	10,000

(a) Number of deaths per 100,000 of mean population.

QUINQUENNIAL DEATH RATES IN CLASSES.—AUSTRALIA.

Class.	Number of Deaths per 100,000 of Mean Population.								
	1911 to 1915.			1921 to 1925.			1926 to 1930.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases							107	86	97
2. Cancer and Other Tumours							100	98	100
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases	261	236	249	248	222	236	19	29	24
4. Diseases of the Blood and Blood-forming Organs							8	9	8
5. Chronic Poisonings and Intoxications							3	1	2
6. Diseases of the Nervous System and of the Organs of Sense	112	93	103	93	83	88	78	77	77
7. Diseases of the Circulatory System	147	116	132	150	118	134	186	150	168
8. Diseases of the Respiratory System	132	93	113	121	88	105	116	85	101
9. Diseases of the Digestive System	135	123	130	97	81	89	79	63	71
10. Non-venereal Diseases of the Genito-Urinary System	72	46	59	72	49	61	77	56	67
11. Puerperal Condition	..	27	13	..	25	12	..	24	12
12. Diseases of Skin and Cellular Tissue	6	5	6	6	4	5	4	3	3
13. Diseases of Organs of Locomotion	2	1	1	3	2	2	3	2	2
14. Congenital Malformations	12	9	10	12	10	11	12	9	10
15. Early Infancy	87	71	79	73	56	65	60	46	54
16. Old Age	94	80	88	76	68	72	55	53	54
17. External Causes	117	33	77	95	26	61	107	30	69
18. Causes of Death not Determined	16	9	13	15	9	12	12	6	9
Total .. .. .	1,193	942	1,073	1,061	841	957	1,026	827	928

15. Ages at Death of Married Males and Females, and Issue.—Bulletin No. 50 "Australian Demography" contains a number of tables showing the ages at marriage, ages at death, birthplaces, and occupations, in combination with the issue of married persons who died in Australia in 1932. A summary of those tables is given hereunder. Deaths of married males in 1932 numbered 19,712, and of married females, 17,713. The tabulations which follow deal, however, with only 19,378 males and 17,524 females, the information in the remaining 523 cases being incomplete. The total number of children in the families of the 19,378 males was 85,097, and of the 17,524 females, 82,284. The average number of children is shown for various age-groups in the following table :—

AGES AT DEATH OF MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.—  
AUSTRALIA.

Age at Death.	Average Family.					
	Males.			Females.		
	1911.	1921.	1932.	1911.	1921.	1932.
Under 20 years .. ..	0.33	..	..	0.94	0.77	0.88
20 to 24 " .. ..	0.77	0.84	1.00	1.27	1.22	1.16
25 " 29 " .. ..	1.25	1.29	1.40	1.82	1.86	1.63
30 " 34 " .. ..	2.05	2.06	1.85	2.74	2.45	2.40
35 " 39 " .. ..	2.80	2.58	2.28	3.64	3.29	2.97
40 " 44 " .. ..	3.47	3.23	2.69	4.09	3.66	3.33
45 " 49 " .. ..	4.09	3.48	3.07	4.54	3.76	3.50
50 " 54 " .. ..	4.75	3.76	3.41	5.35	4.23	3.55
55 " 59 " .. ..	5.44	4.41	3.66	5.86	4.69	4.03
60 " 64 " .. ..	5.95	4.98	3.97	5.99	5.39	4.28
65 " 69 " .. ..	6.23	5.50	4.27	6.50	5.86	4.87
70 " 74 " .. ..	6.41	6.06	4.87	6.38	6.30	5.29
75 " 79 " .. ..	6.75	6.66	5.51	6.72	6.56	5.85
80 " 84 " .. ..	6.68	6.89	6.17	6.22	6.76	6.12
85 " 89 " .. ..	6.67	7.18	6.68	5.97	6.93	6.38
90 " 94 " .. ..	6.03	7.21	6.65	5.69	6.53	6.74
95 " 99 " .. ..	7.30	6.97	6.68	5.05	6.05	6.69
100 years and upwards ..	9.33	9.20	9.40	5.17	5.11	6.85
Age not stated .. ..	4.33	5.36	3.88	4.60	5.80	2.00
All ages .. ..	5.42	4.97	4.39	5.35	5.05	4.70

The figures in the preceding table include the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about 1,000 to 254. The totals are shown in the following table :—

ISSUE OF MARRIED MALES AND FEMALES.—AUSTRALIA, 1932.

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total.
Living ..	34,843	34,560	69,403	Living ..	32,007	32,038	64,045
Dead ..	9,054	6,640	15,694	Dead ..	10,283	7,956	18,239
Total ..	43,897	41,200	85,097	Total ..	42,290	39,994	82,284

16. Ages at Marriage of Deceased Males and Females, and Issue.—While the table giving the average families of married males and females naturally shows an increase in the averages with advancing ages at death, the following table, which gives the average families of males and females according to the age at marriage of the deceased parents shows a corresponding decrease in the averages as the age at marriage advances:—

**AGES AT MARRIAGE OF DECEASED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA.**

Age at Marriage.	Average Family.					
	Males.			Females.		
	1911.	1921.	1932.	1911.	1921.	1932.
Under 15 years .. .. .	..	..	..	9.71	7.60	8.53
15 to 19 „ .. .	6.97	6.32	5.96	7.10	6.97	6.73
20 „ 24 „ .. .	6.34	6.05	5.48	5.77	5.50	5.23
25 „ 29 „ .. .	5.70	5.17	4.72	4.27	4.09	3.81
30 „ 34 „ .. .	4.92	4.45	3.82	3.04	2.66	2.47
35 „ 39 „ .. .	4.05	3.90	3.09	1.68	1.61	1.29
40 „ 44 „ .. .	3.43	2.67	2.49	0.72	0.62	0.43
45 „ 49 „ .. .	2.59	2.20	1.94	0.26	0.03	0.11
50 „ 54 „ .. .	2.45	1.70	1.50	..	..	..
55 „ 59 „ .. .	1.66	1.30	1.60	..	..	..
60 „ 64 „ .. .	2.00	0.33	0.82	..	..	..
65 years and upwards ..	1.00	0.25	0.46	..	..	..
Age unspecified .. ..	5.40	4.93	3.41	5.23	5.41	3.89
All Ages .. .. .	5.42	4.97	4.39	5.35	5.05	4.70

17. Birthplaces of Deceased Married Males and Females, and Issue.—The following table shows the birthplaces of married males and females who died in 1911 and 1932, together with the average issue. No generalizations can, of course, be made in those cases in which the number of deaths was small, but where the figures are comparatively large, as in the case of natives of Australia and the British Isles, differences occur between the average of these individual countries, which appear inexplicable on any other ground than that of different age constitution of the locally born population. It will be noted that the differences occur both in the male and female averages.

**BIRTHPLACES OF DECEASED MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA.**

Birthplace.	Married Males.				Married Females.			
	1911.		1932.		1911.		1932.	
	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.
Australasia—								
Australia .. .. .	4,074	4.71	11,881	4.32	4,566	4.57	11,557	4.54
New Zealand .. ..	64	3.89	189	3.33	56	3.84	148	3.33
Europe—								
England and Wales ..	4,079	5.87	4,030	4.50	3,152	5.86	3,121	4.85
Scotland .. .. .	1,133	5.89	1,012	4.52	1,002	6.09	828	5.21
Ireland .. .. .	1,766	6.12	1,038.	4.85	2,118	5.83	1,220	5.17
Other British Possessions .. ..	23	6.52	30	4.43	24	5.75	13	5.46
Western .. .. .	199	4.33	230	4.12	55	5.07	68	5.43
Central .. .. .	484	5.81	388	5.29	270	6.56	263	6.48
Southern .. .. .	58	5.09	128	4.31	12	4.92	55	4.24
Eastern .. .. .	35	4.37	47	3.96	6	4.50	11	3.29
Asia—								
British Possessions ..	32	3.87	53	2.92	17	6.41	30	4.30
Foreign Countries ..	74	2.46	107	3.48	5	2.60	21	4.86
Africa—								
British Possessions ..	16	3.56	28	3.11	15	4.80	18	4.00
Foreign Countries ..	..	..	2	4.50	..	..	1	1.00
America—								
British Possessions ..	42	5.55	41	5.20	17	6.47	12	4.17
United States .. ..	40	3.78	48	3.88	17	4.94	36	3.22
Other Foreign Countries	17	4.53	9	4.22	10	4.50	4	3.75
Polynesia .. .. .	5	4.00	13	2.77	9	3.33	11	5.00
Indefinite .. .. .	72	4.28	104	4.26	72	4.85	107	5.29
Total .. .. .	12,213	5.42	19,378	4.39	11,423	5.35	17,524	4.70

18. Occupations of Deceased Married Males, and Issue.—The following tabulation shows the average issue in combination with the occupation of deceased males:—

**OCCUPATIONS OF DECEASED MARRIED MALES AND AVERAGE ISSUE—  
AUSTRALIA.**

Occupation Class.	Deaths of Married Males.			Average Issue.		
	1921.	1931.	1932.	1921.	1931.	1932.
Professional .. ..	926	1,194	1,450	4.04	3.78	3.51
Domestic .. ..	552	621	557	3.55	3.64	3.37
Commercial .. ..	1,977	2,962	2,160	4.18	3.55	3.67
Transport and Communica- tion .. ..	1,254	1,742	1,721	4.63	4.15	4.24
Industrial .. ..	5,086	6,883	3,629	4.95	4.49	4.31
Agricultural, Pastoral, Min- ing, etc. .. ..	3,983	4,495	4,710	5.83	5.31	5.25
Indefinite .. ..	759	936	5,151 <sup>a</sup>	5.49	4.68	4.38 <sup>a</sup>
Dependants .. ..	15	39		4.00	3.85	
<b>Total .. ..</b>	<b>14,552</b>	<b>18,872</b>	<b>19,378</b>	<b>4.97</b>	<b>4.44</b>	<b>4.39</b>

(a) Includes 4,071 (average issue 4.35) clerks, labourers, &c., not specified as belonging to any industry, which were formerly included under "Commercial" or "Industrial."

#### § 4. Australian Life Tables.

Official Year Book, No. 20, pp. 962 and 969 to 973, contained a synopsis of the various Australian Life Tables, also comparisons with other countries of the expectation of life at various ages. Considerations of space, however, do not permit of their repetition herein.

#### § 5. Registration of Births, Deaths and Marriages in the Territory for the Seat of Government.

Up to the end of 1929 the provisions of the Registration of Births, Deaths and Marriages Act of 1899 and the Marriage Act of 1899 of New South Wales applied to the Territory for the Seat of Government. Births, deaths and marriages occurring within the Territory were registered by the District Registrars, Queanbeyan and Nowra, and were incorporated in the New South Wales records.

Towards the end of 1929, however, the Registration of Births, Deaths and Marriages Ordinances were enacted, providing for the assumption by the Commonwealth Government of the function of registration within the Territory as from 1st January, 1930. The Commonwealth Statistician is the Principal Registrar, and all registrations are made at Canberra.

Marriages within the Territory are celebrated according to the conditions prescribed by the Marriage Ordinance, 1929. This Ordinance, which closely follows the provisions of the Marriage Act of New South Wales, which it supersedes as regards the Territory for the Seat of Government, came into operation on 1st January, 1930.

## § 6. Graphical Representation of Vital Statistics.

(See Graphs pp. 793 to 798A.)

1. **General.**—The progressive fluctuations of the number of births, marriages, and deaths are important indexes of the economic conditions and social ideals of a community. Graphs have accordingly been prepared which show these fluctuations. It should be remembered, however, that, normally, the increase of births and marriages should be proportional to the growth of population.

2. **Graphs of Annual Births, Marriages, and Deaths.**—The outstanding features of the graph representing births are:—An almost continuous rise in the numbers from 1860 to 1891; a decline till 1898, associated with the commercial crisis of 1891–93; a sharp fall in 1903 which accompanied a severe drought; an uninterrupted increase from 1903 to 1914, the total for 1914 being the highest recorded; a rapid decline until 1920, the result of war conditions. The figures for the last twelve years show a tendency to greater stability, though with a general downward tendency, which was very marked in the years 1931 and 1932.

The graph for marriages up to 1914 discloses approximately the same features as that for births—financial crises and droughts having a similar effect. The numbers for 1914 and 1915 showed a considerable increase over previous years. From 1916 to 1918 there was a rapid fall, the numbers being much below those of pre-war years. During 1919 and 1920 the recovery was very rapid, the total for the latter year being the highest ever recorded. The totals for 1923 to 1931 were not so favourable.

The characteristic feature of the graph of deaths is its irregular nature. On the whole, however, there is an increase which is due to the growth of population.

3. **Graphs of Annual Birth, Marriage, and Death Rates, and Rate of Natural Increase.**—The graph of the birth rate indicates a well-marked decline throughout the whole period. This reduction of rate has been subject to fluctuations, there being two periods of arrested decline, viz., from 1877 to 1890, and from 1903 to 1912.

The variations in the marriage rates, though less abrupt than those in the birth and death rates, have ranged from a minimum of 6.08 per 1,000 which marked the culmination of a commercial depression in 1894 to a maximum of 9.62 per 1,000 in 1920. The depression of 1931, however, was responsible for the establishment of a new minimum of 5.98 per 1,000 in that year.

On the whole, the graph for the death rate furnishes clear evidence of a satisfactory decline during the period. The graph brings into prominence six years in which the rates were very high when compared with adjacent years, viz., 1860, 1866, 1875, 1884, 1898, and 1919. Epidemics of measles were largely responsible for the high rates in the first five years, while influenza caused the increase during 1919.

The graph of natural increase shows roughly the same variations as that for the birth rate, but the influence of the death rate is indicated by the very low rates of natural increase for 1875, 1898, and 1919, which resulted from the exceptionally high death rates of those years.

**CHAPTER XXVII.**

**MISCELLANEOUS.**

**§ 1. Patents, Trade Marks, and Designs.**

1. *Patents.*—(i) *General.* The granting of patents is regulated by the Commonwealth Patents Act 1903–1932, which, in regard to principle and practice, has the same general foundation as the Imperial Statutes, modified to suit Australian conditions. The Act is administered by a Commissioner of Patents. Fees totalling £10 are sufficient to obtain letters patent for Australia, Papua and the Territory of New Guinea. A renewal fee of £5 is payable before the expiration of the seventh year of the patent on all patents granted on applications lodged prior to 2nd February, 1931. On patents granted on applications made on or after the 2nd February, 1931, renewal fees are payable as follows:—£1 before the expiration of the fifth year and an amount progressively increasing by ten shillings before the expiration of each subsequent year up to the fifteenth, when the fee becomes £6. If a renewal fee is not paid when it becomes due, an extension of time up to twelve months may be granted on grounds specified in the Act, and subject to the payment of prescribed fees.

(ii) *Summary.* The number of separate inventions in respect of which applications were filed during the years 1928 to 1932 is given in the following table, which also shows the number of letters patent sealed in each year:—

**PATENTS, AUSTRALIA.—SUMMARY.**

Particulars.	1928.	1929.	1930.	1931.	1932.
No. of applications .. .. .	6,530	6,806	6,524	5,576	5,148
No. of applications accompanied by provisional specifications .. .. .	3,993	4,021	4,062	3,798	3,783
Letters patent sealed during each year	2,615	2,881	3,330	3,041	2,344

(iii) *Revenue.* The revenue of the Commonwealth Patents Office during the years 1928 to 1932 is shown hereunder:—

**PATENTS, AUSTRALIA.—REVENUE.**

Particulars.	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Fees collected under Patents Acts 1903–32 .. .. .	32,573	36,686	38,045	37,136	32,015
Receipts from publications	1,331	1,405	1,486	1,593	1,381
<b>Total .. .. .</b>	<b>33,904</b>	<b>38,091</b>	<b>39,531</b>	<b>38,729</b>	<b>33,396</b>

2. **Trade Marks and Designs.**—(i) *Trade Marks.* Under the Trade Marks Act 1905, the Commissioner of Patents is also Registrar of Trade Marks. This Act has been amended from time to time, the last amendment having been made in 1932. Special provisions for the registration of a "Commonwealth Trade Mark" are contained in the Act of 1905, and are applicable to all goods included in or specified by a resolution passed by both Houses of Parliament that the conditions as to remuneration of labour in connexion with the manufacture of such goods are fair and reasonable.

(ii) *Designs.* The Designs Act 1906, as amended by the Patents, Designs and Trade Marks Act 1910, the Designs Act 1912 and 1932, is now cited as the Designs Act 1906-1932. Under this Act a Commonwealth Designs Office has been established, and the Commissioner of Patents appointed "Registrar of Designs."

(iii) *Summary.* The following table shows the applications for trade marks and designs received and registered during the years 1928 to 1932 :—

#### TRADE MARKS AND DESIGNS, AUSTRALIA.—SUMMARY.

Applications.	1928.	1929.	1930.	1931.	1932.
RECEIVED.					
Trade Marks .. ..	2,882	2,904	2,362	1,876	1,976
Designs .. ..	574	568	736	661	409
REGISTERED.					
Trade Marks .. ..	2,175	2,337	1,940	1,546	1,273
Designs .. ..	694	547	648	538	470

(iv) *Revenue.* The revenue of the Trade Marks and Designs Office during the years 1928 to 1932 is given hereunder :—

#### TRADE MARKS AND DESIGNS, AUSTRALIA.—REVENUE.

Particulars.	1928.			1929.			1930.			1931.			1932.		
	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.
Fees collected under Commonwealth Acts .. ..	£ 9,420	£ 795	£ 264	£ 12,702	£ 718	£ 259	£ 15,056	£ 903	£ 199	£ 12,241	£ 789	£ 120	£ 11,596	£ 750	£ 21

No fees in respect of Trade Marks have been collected under State Acts since the year 1922.

## § 2. Copyright.

1. *Legislation.*—Copyright is regulated by the Commonwealth Copyright Act of 1912, details of which will be found in earlier issues of the Official Year Book (see No. 8, p. 1066), while, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted and scheduled to the Australian law.



Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order in Council which came into operation on the 1st February, 1923, and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

2. **Applications and Registrations.**—The following table shows under the various headings the number of applications for copyright received and registered, and the total revenue obtained for the years 1928 to 1932 :—

**COPYRIGHT, AUSTRALIA.—SUMMARY.**

Particulars.	1928.	1929.	1930.	1931.	1932.
Applications received—					
Literary .. .. No.	1,241	1,142	1,334	1,258	1,469
Artistic .. .. No.	160	141	176	143	91
International .. .. No.	4	17	16	..	1
Applications registered—					
Literary .. .. No.	1,176	1,101	1,267	1,213	1,381
Artistic .. .. No.	152	127	165	122	74
International .. .. No.	3	5	16	..	..
Revenue .. .. £	366	356	406	398	405

### § 3. Local Option, and Reduction of Licences.

Local option concerning the sale of fermented and spirituous liquors is in force in all the States, the States being divided into areas generally continuous with electoral districts, and a poll of the electors taken from time to time in each district regarding the continuance of the existing number of licensed premises, the reduction in number, or the closing of all such premises. Provision is made for giving effect to the results of the poll in each district in which the vote is in favour of a change.

In earlier issues of the Year Book (see No. 22, pp. 1005–1008), details, by States, were published of polls taken and of the operations of the Licences Reduction Boards.

### § 4. Lord Howe Island.

1. **Area, Location, etc.**—Lord Howe Island is situated between Norfolk Island and the Australian coast in latitude  $31^{\circ} 30'$  south, longitude  $159^{\circ} 5'$  east. It was discovered in 1788. The total area is 3,220 acres, the island being 7 miles in length and from  $\frac{1}{2}$  to  $1\frac{1}{2}$  miles in width. It is distant 436 miles from Sydney, and in communication therewith by monthly steam service. The flora is varied and the vegetation luxuriant, the forest growth consisting principally of palms and banyans. The highest point is Mount Gower, 2,840 feet. The climate is mild and the rainfall abundant, but on account of the rocky formation only about a tenth of the surface is suitable for cultivation.

2. **Settlement.**—The first settlement was by a small Maori party in 1853; afterwards a colony was settled from Sydney. Constitutionally, the island is a dependency of New South Wales, and is included in King, one of the electorates of Sydney. A Board of Control at Sydney manages the affairs of the island and supervises the palm seed industry referred to hereunder.

3. **Population.**—The population at the Census of 30th June, 1933, was 88 males, 73 females—total 161.

4. **Production, Trade, etc.**—The principal product is the seed of the native or Kentia palm. The lands belong to the Crown. The occupants pay no rent, and are tenants on sufferance.

### § 5. Commonwealth Council for Scientific and Industrial Research.

1. **General.**—By the Science and Industry Research Act 1926, the previously existing Commonwealth Institute of Science and Industry was reorganized under the title of the Council for Scientific and Industrial Research. An account of the organization and work of the former Institute was given in earlier issues of the Official Year Book. (See No. 18, p. 106z.)

2. **Science and Industry Research Act 1926.**—This Act provides for a Council, consisting of—

- (a) Three members nominated by the Commonwealth Government.
- (b) The Chairman of each State Committee constituted under the Act.
- (c) Such other members as the Council, with the consent of the Minister, co-opts by reason of their scientific knowledge.

The three Commonwealth nominees form an Executive Committee which may exercise, between meetings of the Council, all the powers and functions of the Council, of which the principal are as follow:—(a) To initiate and carry out scientific researches in connexion with primary or secondary industries in the Commonwealth; (b) to train research workers and to establish industrial research studentships and fellowships; (c) to make grants in aid of pure scientific research; (d) to establish industrial research associations in any industries; (e) to test and standardize scientific apparatus and instruments; (f) to establish a Bureau of information; and (g) to act as a means of liaison between the Commonwealth and other countries in matters of scientific research.

State Committees whose main function is to advise the Council as to matters that may affect their respective States, have been constituted in accordance with prescribed regulations.

3. **Science and Industry Endowment Act 1926.**—Under this Act, the Government has established a fund of £100,000, the income from which is to be used to provide assistance (a) to persons engaged in scientific research, and (b) in the training of students in scientific research. Provision is made for gifts or bequests to be made to the fund, which is controlled by a trust consisting of the three Commonwealth nominees on the Council. In accordance with the Act, arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. **Work of the Council.**—The full Council held its first meeting in June, 1926, since which time it has held meetings at about half-yearly intervals. It has adopted a policy of placing each of its major fields of related researches under the direction of an officer having a standing at least as high as, if not higher than, that of a University Professor.

The main branches of work of the Council are (i) plant problems; (ii) soil problems; (iii) entomological problems; (iv) animal nutrition; (v) animal diseases; (vi) forest products; and (vii) food preservation and transport. Successful results have been obtained in a number of directions, particularly in regard to bitter pit in apples, spotted wilt in tomatoes, water blister of pineapples, blue mould of tobacco, the cultivation and drying of vine fruits, the cultivation of citrus fruits, the feeding of sheep for increased wool production, black disease, infectious entero-toxæmia, pulpy kidney and caseous lymphadenitis of sheep, internal parasites, problems affecting cattle in Northern

Australia, soil surveys, paper making from Australian timbers, timber seasoning and preservation, and the preservation and transport of food-stuffs. More detailed information concerning the work of the Council may be found in Year Book No. 22, pp. 1009 and 1010, but considerations of space preclude its insertion herein.

### § 6. Australian Institute of Anatomy.

1. **Foundation of Institute.**—The Australian Institute of Anatomy, situated in Canberra, occupies a monumental building erected by the Federal Government under the Zoological Museum Agreement Act of 1924. Prior to the passing of this Act, the Federal Government had expressed regret that the Australian Nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a Museum in which such specimens could be preserved for future generations. Comparative anatomy is the basis of medical science, and while the importance of a study of Australian animals in the solution of various medical problems had for years been recognized by other countries and steps taken by them to procure specimens for their museums, national effort in this direction was neglected in Australia. Sir Colin MacKenzie, the present Director of the Institute of Anatomy, however, very kindly presented to the Federal Government his entire private collection, and this magnificent gift was acquired and provision was made for its proper housing under special legislation by the Federal Government.

2. **Additions to Original Collection.**—In addition to the original collection, which has been greatly augmented, the following free gifts have been made to the Australian Nation, and are on view in the Institute :—

- (1) *Horne-Bowie Collection.*—Dealing with the life of Central Australian aborigines, and throwing valuable light on the psychology of this Stone Age people.
- (2) *Burrell Collection.*—This deals with the life history of the platypus, and is unique in the world. The platypus is the most primitive mammal known to science, and is the link between the bird, the reptile and the mammal.
- (3) *Milne Collection.*—This is an anthropological and ethnological collection dealing with the aborigines of New South Wales, and contains many valuable and now unobtainable native weapons and implements.
- (4) *Murray Black Collection* of anatomical material representative of the aborigines of Southern Victoria and the River Murray.
- (5) *Nankivell Collection*, illustrating the anatomy of the aborigines of the Murray Valley.
- (6) *Harvard University Collection.*—This includes a collection of specimens from the Harvard University, U.S.A., representing a carefully worked out epitome of archaeology of the United States, and together with two rare skeletons of primitive North American Indians, was a goodwill gift from the University to the Institute of Anatomy.
- (7) Many hundreds of specimens and books received from numerous interested scientists, the most outstanding being those from Mr. E. Hill, of Nagambie, Victoria; Mrs. Harry Burrell, New South Wales; and medical books for the Library from the estates of the late Drs. Molloy; David Grant; and Robert Stirling.

3. **Endowments for Orations and Lectures.**—In addition to the aforementioned donations of material, there have been several endowments for Orations and Lectures as follows :—

- (1) *The Halford Oration.*—Endowed with a gift of £1,000 by the family of the late Professor G. B. Halford, founder of the first medical school in the Southern Hemisphere. The interest on this amount is given to a prominent scientist to deliver an oration on a subject suggested by the life and work of the late G. B. Halford.

- (2) *The Anne MacKenzie Oration*.—Founded with a gift of £1,000 by Sir Colin MacKenzie, in memory of his mother. The orator receives the annual interest for delivering an oration on any phase of "Preventive Medicine".
- (3) *The Dr. G. E. Morrison Memorial Lecture on Ethnology*.—Founded by Chinese residents in Australia, in memory of a great Australian who rendered important services to China.
- (4) *The Kendall Lecture in Veterinary Science*.—Endowed by the sons of Dr. W. T. Kendall in his honour, he being the founder of the first Veterinary School in the Southern Hemisphere.
- (5) *The Charles Mackay Lecture on Medical History*.—Endowed by Miss C. MacKenzie with a gift of £607 as a memorial to her grandfather, an educationalist, who arrived in Melbourne in 1852 and died at Kilmore, Victoria.

4. **Ultimate Scope of the Institute.**—The Institute of Anatomy may be regarded as the first unit of a National University of Australia, and has already become the most important centre in the Southern Hemisphere for the study of comparative anatomy and of its application to human health and disease. Research work in many branches of this subject is being carried out, and an extensive collection of material for the use of future generations is being catalogued. The microscopic specimens of Australian fauna number many thousands, and are unique in the world. They represent normal mammalian tissues unaffected by disease or domestication, and with these, human tissues such as those affected with cancer can be compared. The building is used to a large extent for educational purposes. All the University College lectures are given there, and all public lectures of an educational nature are delivered in the lecture theatre attached to the Institute. The general public is admitted to the two great Museums of Osteology and Applied Anatomy, and large numbers take advantage of this concession.

## § 7. The Commonwealth Solar Observatory.

1. **Reasons for Foundation.**—The Commonwealth Solar Observatory was established for the study of solar phenomena, for allied stellar and spectroscopic research, and for the investigation of associated terrestrial phenomena. Its situation is such that it will fill a gap in the chain of existing astrophysical observatories: with its completion there will be stations separated by 90 degrees of longitude round the globe. In addition to advancing the knowledge of the universe and the mode of its development, it is hoped that the eventual discovery of the true relation between solar and terrestrial phenomena may lead to results which will prove of direct value to the country.

2. **History of Inauguration.**—A short account of the steps leading up to the establishment of the Observatory will be found in Official Year Book No. 19, p. 979.

3. **Site of the Observatory.**—The site selected for the Observatory is on Mount Stromlo, a ridge of hills about 7 miles west of Canberra. The highest point is 2,560 feet above sea level, or about 700 feet above the general level of the Federal Capital City.

4. **Equipment.**—The bulk of the telescopic equipment is due to the generosity of supporters of the movement in England and Australia. The gifts include a 6-in. Grubb refracting telescope, presented by the late W. E. Wilson, F.R.S., and Sir Howard Grubb, F.R.S., trustees of the late Lord Farnham; a 9-in. Grubb refractor with a 6-in. Dallmeyer lens, both presented by the late Mr. James Oddie, of Ballarat; while Mr. J. H. Reynolds, of Birmingham, presented a large reflecting telescope with a mirror 30 inches in diameter. A sun telescope including an 18-in. heliostat has been installed. The equipment also includes spectroscopes for the examination of spectra in the infra-red, violet and ultra-violet regions. Donations amounting to over £2,500 have been received, and form the nucleus of a Foundation and Endowment Fund.

5. **Observational Work.**—The observational work embraces the following:—(a) solar research, (b) stellar research, (c) spectroscopic researches, (d) atmospheric electricity, (e) cosmic radiation, (f) radio research, (g) ozone content of the atmosphere, (h) luminosity of the night sky, and (i) meteorological observations. A more detailed account of the observational work cannot, owing to limits of space, be published in this issue, but may be found in earlier issues (see No. 22, p. 1011).

## § 8. Standards Association of Australia.

This Association was established under the aegis of the Commonwealth and State Governments for the promotion of standardization and simplified practice.

In addition to the Council and Standing and Organization Committees, the following Sectional Committees have been appointed to formulate Australian standard specifications and codes:—A.—*Safety Codes Group*—(1) Boiler Regulations (including Gas Cylinders); (2) Concrete and Reinforced Concrete Structures; (3) Cranes and Hoists; (4) Electrical Wiring Rules; (5) Lift Installations; (6) Pump Tests; (7) Refrigeration; (8) Steel Frame Structures; (9) Welding. B.—*General Technical Standards Group*.—(1) Bore Casing; (2) Building Materials; (3) Calcium Carbide; (4) Cement; (5) Coal—Purchase, Sampling and Analysis; (6) Colliery Equipment; (7) Containers for Inflammable Liquids; (8) Electrical; (9) Firebricks; (10) Locomotive; (11) Lubricants; (12) Machine Belting; (13) Machine Parts; (14) Non-ferrous Metals; (15) Paint and Varnish; (16) Pipes and Plumbing; (17) Railway Permanent Way Materials; (18) Roadmaking Materials; (19) Structural Steel; (20) Testing, Weighing and Gauging; (21) Timber; (22) Tramway Rails; (23) Typography; (24) Galvanizing and Galvanized Products. C.—*Co-ordinating Committees*—(1) Concrete Products; (2) Ferrous Metals; (3) Non-Ferrous Metals; (4) Methods of Physical Testing, Sampling and Chemical Analysis—Co-ordination of. D.—*Commercial Standards Division Committees*.—(1) Building Materials Classification; (2) Three-ply Wood Panels for Use in Stock Door Manufacture; (3) Institutional Supplies and Co-ordinated Purchasing (Hospitals, Asylums and other Public Institutions); (4) General Conditions of Contract; (5) Bank Cheques and Drafts; (6) Commercial Paper Sizes; (7) Road Gully Gratings; (8) Shovels; (9) Sheet Metal Gutting, Ridging and Downpiping; (10) Laminated Steel Springs for Motor Cars.

A Power Survey Committee to deal with the collection of data and the framing of recommendations for assistance in the development and co-ordination of power schemes has also been appointed.

The objects of the Association include the following:—To prepare and promote the general adoption of standards in connexion with structures, materials, etc.; to co-ordinate the efforts of producers and users for the improvement of materials, processes, and methods; and to procure the recognition of the Association in any foreign country.

The sole executive authority of the Association is vested in the Council, which undertakes the whole of the organization of the movement, the raising of the necessary funds, the controlling of the expenditure, the arranging of the subjects to be dealt with by the various sectional and sub-committees, and the authority for the issue of all the reports and specifications.

The Association was established in July, 1929, by amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice.

### § 9. Valuation of Australian Production.

1. **Value of Production.**—The want of complete uniformity in methods of compilation and presentation of Australian statistics renders it an extremely difficult task to make a satisfactory valuation of the various elements of production. At present there is little accurate statistical knowledge regarding such industries as forestry, fisheries, poultry, and bee-farming, and a valuation of the production therefrom must be regarded as a rough approximation. Due consideration must also be given to the qualifications briefly summarized below in regard to values in the more important classes of production.

The annual value of production as defined by the Conference of Statisticians in 1924 is the sum available each year for distribution among those concerned in industry, i.e., workers, proprietors (including landlords), and providers of capital. At the Conference referred to, and at subsequent conferences, it was resolved that a subtraction on identical lines from gross values on account of costs of production was necessary in order to avoid duplication, and to arrive at net values for all States on a comparable basis. Excluding depreciation, the value of manufacturing production has for some time been computed on the lines mentioned, but it has not been possible to extend the new valuation to include all primary industries excepting Agriculture, particulars concerning which are set out on page 565. The presentation of net values in regard to all branches of production is, however, receiving attention. In the meantime, the values given in the table hereunder, are, with the exception of manufacturing, gross values.

The values for agricultural production are the gross values in the metropolitan markets at port of export. No deductions have been made for freight, seed, fertilizers or material of any kind used in production. Further, the total is exaggerated by the inclusion therein of the value of hay and other forage which is used on the farm in the production of milk, meat, &c. Particulars of these deductions are shown in the table on page 566.

The values for pastoral production also are gross, but the exaggeration is not great, and on the other hand, there are substantial omissions. In the case of rabbits (meat and skins) and a number of pastoral by-products, the value of exports only is included.

No costs are deducted from dairy production. One large item included, moreover, has, of necessity, been accorded a somewhat artificial value, viz., milk consumed on the farm.

The values for mining are unsatisfactory, as in some cases they represent the gross values of the metal content of ores, though the cost of treatment is substantial. There is, therefore, some duplication with metal refining and ore-reduction included in manufacturing production.

The values for manufacturing are, in accordance with the resolutions of the Conference of Statisticians, obtained by deducting from the value of the output the cost of all materials used, and of fuel, power, light, lubricants, water, &c. Most of the principal costs have, therefore, been allowed for, except depreciation. The value of manufacturing production is, consequently, much nearer a net value than the value of primary production.

For the reasons stated above, the values of different kinds of production are not strictly comparable with one another, and may be added together, only with considerable reserve, to make a rough index of change in the value of total material production.

Butter, bacon, and condensed milk factories, and sawmills for native timber, are included in the tables relating to manufacture shown in Chapter XXII., but are here excluded and added to dairying and forest production respectively.

The table hereunder shows, subject to the above reservation, the approximate value of the production from all industries during the years specified:—

## ESTIMATED VALUE OF PRODUCTION.—AUSTRALIA.

Year.	Agriculture.	Pastoral.	Dairy, Poultry, and Bee-farming.	Forestry and Fisheries.	Mining.	Manufacturing.(a)	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1921-22 ..	81,890	75,054	44,417	10,519	20,029	112,517	344,426
1922-23 ..	84,183	97,127	43,542	11,124	20,281	123,188	379,445
1923-24 ..	81,166	110,216	42,112	11,866	22,184	132,732	400,276
1924-25 ..	107,163	127,301	45,190	12,357	24,592	137,977	454,580
1925-26 ..	89,267	113,556	48,278	12,784	24,529	143,256	431,670
1926-27 ..	98,295	111,716	46,980	12,790	23,939	153,634	447,354
1927-28 ..	84,328	124,554	50,261	12,181	23,015	158,562	452,901
1928-29 ..	89,440	116,733	50,717	11,617	19,539	159,759	447,805
1929-30 ..	77,109	84,563	49,398	11,371	17,912	149,184	389,537
1930-31 ..	70,500	69,499	43,067	8,313	15,356	112,966	319,701
1931-32 ..	74,489	61,540	41,478	7,703	13,352	106,456	305,018

(a) These amounts differ from those given in Chapter XXII., Manufacturing Industry, which include certain products included under Dairy Farming and Forestry in this table.

2. Productive Activity.—In previous issues, an attempt has been made to measure the quantity of material production by means of production price index-numbers. These index-numbers have never been regarded as satisfactory over a long period, and there is a danger in continuing them further in respect to manufacturing production. (See Production Bulletin No. 26, page 126.)

In the absence of a satisfactory measure of the "quantity" of production, the retail price index-numbers have been applied to the value of production in the same manner as applied to nominal wages to measure their relative purchasing power. The results may be taken to indicate the purchasing power, in retail prices, of the things produced. For convenience these results will hereafter be called "real" production. Two tables are given. The first shows "real" production per head of population. This table must be used with caution, as the production considered is material production only, and takes no account of services. As civilization advances, material production becomes less important relative to services, and a smaller proportion of the population is engaged in material production. For example, the present use of the motor car, the cinema, and wireless is comparatively recent, and these employ a much larger number of people in services than in material production. Hence material production per head of population will not measure accurately the progress of productive efficiency, but will tend to give too low a value. Unemployment, of course, will also depress it.

A better measure is afforded by "real" production per person engaged in material production. The second table attempts to give this. The result affords a better measure of individual productive efficiency, but does not take into account the effect of unemployment, though the index may be somewhat depressed by short time and rationing.

The two tables tell different stories. Before unemployment became severe in 1930 "real" production per head, as shown in the last column of the first table, had remained substantially steady, with minor fluctuations ever since 1906. Whatever gain had been made in individual productive efficiency had been off-set by the gradual transfer of labour from production of goods to production of services. With unemployment becoming intense in the last three years, the index fell from its normal figure of about 100, to 76 in 1930-31. This would imply a fall of about 24 per cent. from the normal level, taking unemployment into account. In 1931-32 the corresponding index rose to 79 representing an increase in "real" production of almost 4 per cent. A further improvement is anticipated in 1932-33 when the index may exceed 85. This figure indicates a rise in real production per head of population of nearly 8 per cent. over that of the previous year and of nearly 12 per cent. since 1930-31.

The index of "real" production per person engaged, as given in the last column of the second table, shows, on the other hand, an appreciable upward tendency. It rose steeply during the war, as might have been expected, fell somewhat after the war, and recovered again. For 1929-30 it fell to 105, owing to the lag in the fall of retail prices, increased to 107 for 1930-31, to 112 in 1931-32, and will probably rise to 119 for 1932-33, as contrasted with about 85 for "real" production per head. This high figure for real production per person engaged, implies a high real wage for those in employment, and is consistent with information respecting real wages which in the second quarter of 1932 had maintained the high level reached in the years 1927 to 1929.

The data for the second table are not complete. The numbers engaged in timber-getting are not accurately known, so that the value of production on this account, and the corresponding persons engaged, are both left out of account. Further, the information concerning women engaged in primary production is unsatisfactory, so that males alone are counted in primary industries. In manufacturing, the numbers are converted into equivalent male workers on the basis of relation of wages for male and female workers. The column headed "numbers engaged" is, therefore, rather an index than the absolute number of individuals occupied in material production, but, as an index, it should be accurate enough to give a satisfactory measure of production per person engaged.

PRODUCTION PER HEAD OF POPULATION.—AUSTRALIA.

Year.	Value of Material Production.			Retail Prices Index Number. (a) 1911 = 1,000.	Real production per head of population (measured in retail purchas- ing power). 1911 = 100.
	Total.	Per head of population.			
		Actual.	Index Number 1911 = 100.		
	£1,000.	£			
1901 .. ..	114,585	30.0	73	880	83
1906 .. ..	147,043	35.9	87	902	97
1907 .. ..	166,948	40.1	97	897	109
1908 .. ..	162,861	38.5	93	951	98
1909 .. ..	174,273	40.3	98	948	103
1910 .. ..	185,399	41.9	102	970	105
1911 .. ..	188,359	41.2	100	1,000	100
1912 .. ..	209,236	44.1	107	1,101	97
1913 .. ..	220,884	45.1	110	1,104	99
1914 .. ..	213,552	43.0	104	1,140	92
1915 .. ..	255,571	51.4	125	1,278	98
1916 .. ..	261,996	53.3	129	1,324	98
1917 .. ..	279,418	56.1	136	1,318	103
1918 .. ..	291,875	57.5	140	1,362	102
1919-20 ..	343,697	64.8	157	1,624	97
1920-21 ..	390,644	72.2	175	1,821	96
1921-22 ..	344,426	62.5	152	1,600	95
1922-23 ..	379,445	67.4	164	1,642	100
1923-24 ..	400,276	69.6	169	1,714	99
1924-25 ..	454,580	77.4	188	1,690	111
1925-26 ..	431,670	72.1	175	1,766	99
1926-27 ..	447,354	73.2	178	1,763	101
1927-28 ..	452,901	72.6	176	1,776	99
1928-29 ..	447,805	70.7	172	1,785	96
1929-30 ..	389,537	60.7	148	1,783	83
1930-31 ..	319,701	49.4	120	1,574	76
1931-32 ..	305,018	46.7	114	1,432	79

1. Retail prices of Food, Groceries, and Housing (all Houses) for six capital cities.



PRODUCTION PER PERSON ENGAGED.—AUSTRALIA.

Year.	Number engaged in Material Production.(a)	Value of Material Production per person engaged in production.(a)		Real production per person engaged (measured in retail purchasing power). 1911 = 100.
		Actual.	Index Number, 1911 = 100.	
	(1,000)	£		
1906 .. ..	659	223	87	96
1907 .. ..	678	244	95	106
1908 .. ..	677	239	93	98
1909 .. ..	684	252	98	104
1910 .. ..	704	262	102	105
1911 .. ..	728	257	100	100
1912 .. ..	744	279	109	99
1913 .. ..	756	290	113	102
1914 .. ..	733	289	113	99
1915 .. ..	704	361	141	110
1916 .. ..	685	381	148	112
1917 .. ..	683	408	159	120
1918 .. ..	685	424	165	121
1919-20 ..	743	460	179	110
1920-21 ..	760	510	199	109
1921-22 ..	775	441	172	107
1922-23 ..	793	475	185	113
1923-24 ..	810	491	191	111
1924-25 ..	826	547	213	126
1925-26 ..	831	515	201	114
1926-27 ..	841	527	205	116
1927-28 ..	838	536	209	118
1928-29 ..	830	536	209	117
1929-30 ..	803	482	187	105
1930-31 ..	728	431	168	107
1931-32 ..	741	411	160	112

(a) See explanatory remarks above tables.

§ 10. Film Censorship.

1. Legislation.—The censorship of imported films derives its authority from section 52 (g) of the Customs Act, which gives power to prohibit the importation of goods. Under this section, proclamations have been issued prohibiting the importation of films and relative advertising matter except under certain conditions and with the consent of the Minister. The conditions governing importation are contained in regulations issued under the Act and provide, *inter alia*, that no film shall be registered which in the opinion of the censor is (a) blasphemous, indecent or obscene; (b) likely to be injurious to morality, or to encourage or incite to crime; (c) likely to be offensive to the people of any friendly nation; (d) likely to be offensive to the people of the British Empire; or (e) depicts any matter the exhibition of which is undesirable in the public interest.

The regulations governing the exportation of Australian-made films are similar, with the addition that no film may be exported which in the opinion of the Censor is likely to prove detrimental or prejudicial to the Commonwealth of Australia.

The Censorship consists of a Censorship Board of three persons and an Appeal Censor, the headquarters being in Sydney. Importers also have the right of appeal to the Minister.

In addition to the censorship of moving pictures, the Censorship may refuse to admit into Australia any advertising matter proposed to be used in connexion with the exhibition of any film. Such control, does not, however, extend to locally-produced publicity.

2. **Imports of Films.**—Imported films dealt with by the Censorship for the year 1932 were as follows:—1,460 films of 2,874,936 feet passed without eliminations, 263 films of 1,392,623 feet passed after eliminations, and 58 films of 359,372 feet rejected in first instance, making a total of 1,781 films of 4,626,931 feet (one copy). The countries of origin were as follows:—United States of America, 1,312 films of 3,509,221 feet; United Kingdom, 333 films of 930,717 feet; and 136 films of 186,993 feet from other countries.

3. **Export of Films.**—The number of films exported for the year 1932 was 950 of 825,299 feet (one copy).

### § 11. Marketing of Australian Commodities.

Particulars in respect of the various Commonwealth Acts and Regulations, together with the operations of the Boards or Councils appointed to assist or control the marketing of Australian commodities, were published in earlier issues of the Year Book. (See No. 22, p. 1016.)

### § 12. The National Safety Council of Australia.

The National Safety Council of Australia was founded in Melbourne in 1927 for the purpose of developing, mainly by means of education, safety on the road, at work and in the home, and its activities have developed in other directions, wherever the need for reducing the toll of accidents has been shown.

In the States of New South Wales, Victoria, Queensland, South Australia and Tasmania, it issues, by courtesy of the Traffic Authorities, a thirty-two page booklet with every motor driver's licence, and conducts continuous propaganda through the press and other sources.

It also forms Junior Safety Councils in the schools for developing a safety conscience among children. The children themselves are officers of these Councils and patrol the roads in the neighbourhood of the schools and conduct the scholars across in safety.

Small films specially taken are available for children's and home safety instruction.

A "Freedom from Accidents" competition is also conducted among employee drivers, those completing a year free from any accident for which they are responsible being given a certificate to that effect.

A Factories Service of four posters per month, together with slips for pay envelopes, constitutes a regular service for the dissemination of safety advice, and was supplied to over 31,000 workers in factories last year. Committees deal with specific problems regarding traffic, films, safety in industry, etc., the latest committees created being the Air Safety and Home Committees. The Air Safety Committee has recently issued a thirty-two page booklet "Air Sense" for distribution with "A" pilots' licences through the Civil Aviation Branch of the Defence Department.

The Council is supported by public subscription and sales of service.

Numerous lectures are given throughout the year on the work of the Council, and on various aspects of safety, and lecturers are always available for any organization which makes application to the Secretary.

### § 13. Antarctica.

By Act No. 8 of 1933 (Commonwealth of Australia) that part of the territory in the Antarctic Seas which comprises all the islands and territories, other than Adelie Land, situated south of the 60th degree south latitude and lying between the 160th degree east longitude and the 45th degree east longitude, was declared to be accepted by the Commonwealth as a Territory under the authority of the Commonwealth, by the name of the Australian Antarctic Territory.

### § 14. League of Nations.

Australia was one of the original signatories of the Treaty of Versailles of 28th June, 1919, under which the League of Nations was established, and thus became a Member of the League and its kindred organizations—the International Labour Organization and later the Permanent Court of International Justice.

Australia holds a mandate, issued through the League of Nations, for the former German territory of New Guinea, and, by agreement with Great Britain and New Zealand, administers the Mandated Territory of Nauru, for which a mandate was issued to the British Empire.

On 2nd October, 1933, Australia was elected a non-permanent member of the Council of the League of Nations, and will now be called upon to participate in greater measure in the work of the organization.

There are five permanent members of the Council (Great Britain, France, Italy, Japan and Germany) and ten non-permanent members, viz., Argentine, Australia, China, Czechoslovakia, Denmark, Mexico, Panama, Poland, Portugal, and Spain. The term of the non-permanent members is three years.

Australia has been represented at each Assembly of the League from its inauguration in 1920, and at nearly all of the conferences of the International Labour Organization.

The contribution of Australia towards defraying the expenditure of the League of Nations and its kindred organizations is on the basis of 27 of 1,012½ units, and for the year 1933 amounted to 891,443 gold francs, or, in Australian currency at the present rate of exchange, approximately £63,000, out of a total budget of 33,429,132 gold francs.

## CHAPTER XXVIII.

## STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

## § 1. General.

**Development of Australian Statistics.**—(i) *General.* An outline of the history and development of statistics in Australia was published in Year Book No. 19 (see p. 988) and previous issues, particular reference being made to the Crown Colony Blue Books, Statistical Registers, Prominent State Statisticians, Statistical Conferences, the Foundation of the Federal Bureau, and Uniformity of Statistical Control. It is not proposed to repeat this information in this issue.

(ii) *Present Organization.* The organization in respect of the collection, tabulation, etc., of statistical data as between the State and Federal Statistical Bureaux, and State and Federal Government Departments, was described in Official Year Book No. 19, p. 990. Limits of space preclude its repetition in this issue.

## § 2. Statistical Publications of Australia.

**1. General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, viz. :—(1) Commonwealth publications dealing both individually and collectively with the several States of the Commonwealth, and (2) State publications dealing with individual States only. Besides these there are many other reports, etc., issued regularly, which though not wholly statistical, necessarily contain a considerable amount of statistical information.

**2. Commonwealth Publications.**—Commonwealth publications may be grouped under two heads, viz. :—(i) Publications issued by the Commonwealth Statistician, and (ii) Parliamentary and Departmental Reports and Papers.

(i) *Publications issued by the Commonwealth Statistician.* The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration up to September, 1933 :—

*Australian Life Tables, 1901-1910. Australian Joint Life Tables, 1901-1910.*

*Australian Life Tables, 1920-1922.*

*Census (1911) Bulletins.*

*Census (1911) Results.*—Vols. I., II., and III., with Appendix “Mathematical Theory of Population.”

*Census (1921) Results.*—Bulletins, Nos. 1 to 26. Parts I. to XVI., forming Vol. I., and Parts XVII. to XXIX., forming, with the Statistician's Report, Vol. II.

NOTE.—Part XXVII., Life Tables.

*Finance.*—Bulletins, 1907 to 1916-17 annually; 1917-18 and 1918-19 (one vol.); 1919-20 and 1920-21 (one vol.); 1921-22 to 1931-32 annually.

*Labour and Industrial Statistics.*—Memoranda and Reports, various, to 1913.

*Labour Report,* annually, 1913 to 1931.

*Local Government in Australia.*—July, 1919.

*Official Year Book of the Commonwealth of Australia.*—Annually, 1907 to present issue (1933).

*Oversea Trade,* annually, 1906 to 1931-32.

*Pocket Compendium of Australian Statistics* (formerly *Statistical Digest*), 1913, 1914, 1916, and 1918 to 1933 annually.

*Population and Vital Statistics Bulletins.*—Reports, various. Commonwealth Demography, 1911 to 1932 annually.

*Production.*—Bulletins, annually, 1906 to 1931-32.

*Professional Papers.*—Various. A full list will be found in Official Year Book No. 13, p. 3.

*Quarterly Summary of Australian Statistics*—first issue, No. 70, December, 1917, replacing *Monthly Summary of Australian Statistics* (Bulletins 1 to 69).

*Social Insurance*—Report to the Hon. the Minister of Trade and Customs, 1910.

*Social Statistics*—Bulletins, 1907 to 1915 annually, and 1918.

*Superannuation for the Commonwealth Public Service*—Report to the Hon. the Minister for Home Affairs, 1910.

*Transport and Communication*—Bulletins, 1906, 1908 to 1916 annually; 1919 to 1930 annually, and 1932.

*Wages and Prices*—January, 1932.

*Wealth*—The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.

(ii) *Commonwealth Parliamentary and Departmental Reports and Papers.* Lists of the principal official reports and other documents containing statistical information issued from the inauguration of the Commonwealth were given in Year Books up to No. 15, but limits of space preclude the incorporation of this information in the present volume.

3. **State Publications**—The chief statistical publications of each State are set out hereunder. Limits of space preclude a further enumeration of the various Departmental Reports, statements of accounts, etc., issued by officials, boards, local government bodies, etc., in each State.

(a) New South Wales—Statistical Register (annual); Official Year Book of New South Wales (annual); Statesman's Year Book (annual); Vital Statistics (monthly and annual); Statistical Bulletin (monthly to December, 1919, thereafter quarterly); Monthly Summary of Business Statistics.

(b) Victoria—Statistical Register (annual to 1916, then discontinued); Victorian Year Book (annual); Statistical Abstracts (quarterly to 1917). Vital Statistics (quarterly).

(c) Queensland—Statistical Register (annual); Official Year Book, 1901; A.B.C. of Queensland Statistics (annual); Vital Statistics (annual and monthly).

(d) South Australia—Statistical Register (annual); Official Year Book, 1912 and 1913; Statesman's Pocket Year Book (annual). Circular (Monthly) containing Principal Statistics.

(e) Western Australia—Statistical Register (annual); Statistical Abstracts (quarterly, previously issued monthly to July, 1917); Pocket Year Book of Western Australia (annual); Circular (monthly), containing Principal Statistics.

(f) Tasmania—Statistical Register (annual); Statesman's Pocket Year Book (annual); Statistical Summaries (annual); Vital Statistics (quarterly).

### § 3. Selected List of One Hundred Representative Works Dealing with Australia.\*

It is not claimed that this list is completely representative, as it has been restricted chiefly to recent publications or to publications still in print.

Much important literature necessary to the study of many aspects of Australia is contained in official publications or in Parliamentary Papers which have not been included in this list.

#### GENERAL AND DESCRIPTIVE.

BROWNE, G. S. *Australia: A General Account; History, Resources, Production, Social Conditions.* London, 1929.

HANCOCK, W. K. *Australia.* London, 1930.

HOPPE, E. O. *The Fifth Continent.* London, 1931.

JOSE, A. W. *Australia: Human and Economic.* London, 1932.

JOSE, A. W., CARTER, H. J., and TUCKER, T. G., *editors.* *The Illustrated Australian Encyclopædia.* 3rd edition. 2 vols. Sydney, 1926-27.

\* This list has been compiled by the Librarian of the Commonwealth Parliament Library. A copy of each of the works mentioned is preserved in the Library and access thereto may be had by any Commonwealth official or other authorized person.

## DISCOVERY AND EARLY VOYAGES AND EXPLORATION.

- MARRIOTT, Mrs. C. B. *Early Explorers in Australia.* London, 1925.  
 SCOTT, E. *Australian Discovery.* 2 vols. London, 1929.  
 WOOD, G. A. *The Discovery of Australia.* London, 1922.

## HISTORY AND BIOGRAPHY.

- BEAN, C. E. W., *editor.* *Official History of Australia in the War of 1914-1918 (In progress),* Sydney, 1921 to date.  
 CLEARY, P. S. *Australia's Debt to First Nation Builders,* Sydney, 1933.  
 JOSE, A. W. *A History of Australia from the Earliest Times to the Present Day.* 10th edition, Sydney, 1924.  
 KNOX, ERROL G. *Compiler* *Who's Who in Australia, 1933-34.* Melbourne, 1933.  
 MACKANESS, G. *The Life of Vice-Admiral William Bligh.* 2 vols. Sydney, 1931.  
 MARSDEN, Rev. S. *Letters and Journals of Samuel Marsden 1765-1838,* Dunedin, 1932.  
 SUGDEN, Rev. E. H., EGGLESTON, Hon. F. W. and GEORGE SWINBURNE; *A Biography.* Sydney, 1931.  
 SCOTT, E. *Short History of Australia.* 5th edition. Oxford, 1928.  
 SYDNEY MORNING HERALD. *newspaper.* *A Century of Journalism: the Sydney Morning Herald and its Record of Australian Life, 1831-1931.* Sydney, 1931.  
 WATSON, J. F., *editor.* *Historical Records of Australia (In progress).* Sydney, 1914-1925.

## CONSTITUTION AND ADMINISTRATION.

- CRAMP, K. R. *State and Federal Constitutions of Australia.* 2nd edition. Sydney, 1914.  
 EGGLESTON, Hon. F. W. *State Socialism in Victoria.* London, 1932.  
 KERR, D. *The Law of the Australian Constitution.* Sydney, 1925.  
 MCGRATH, B. J., O'SULLIVAN, G. J., and DIGNAM, W. J. *The Laws of the Commonwealth of Australia, 1901-1931.* 3 vols. Sydney, 1932.  
 MITCHELL, Sir E. F. *What Every Australian Ought to Know.* 2nd edition. Melbourne, 1932.  
 MOORE, Sir W. H. *The Constitution of the Commonwealth of Australia.* 2nd edition. Melbourne, 1910.  
 PORTUS, Rev. G. V., *editor.* *Studies in the Australian Constitution.* Sydney, 1933.  
 QUICK, Sir J., and GARRAN, Sir R. R. *The Annotated Constitution of the Australian Commonwealth.* 2nd edition. Sydney, 1901.  
 QUICK, Sir J., and GROOM, Sir L. E. *The Judicial Power of the Commonwealth: with the Practice and Procedure of the High Court.* Melbourne, 1904.  
 QUICK, Sir J. *The Legislative Powers of the Commonwealth and the States of Australia.* Melbourne, 1919.  
 SWEETMAN, E. *Australian Constitutional Development.* Melbourne, 1925.

## POLITICS.

- BERNAYS, C. A. *Queensland: Our Seventh Political Decade. 1920-1930.* Sydney, 1931.  
 BROWN, J. M. *Peoples and Problems of the Pacific.* 2 vols. London, 1927.  
 CAMPBELL, P. C., MILLS, R. C., and PORTUS, Rev. G. V. *Studies in Australian Affairs.* Melbourne, 1928.  
 CANAWAY, A. P. *The Failure of Federalism in Australia.* London, 1930.  
 HUGHES, W. M. *The Splendid Adventure: a Review of Empire Relations within and without the Commonwealth of Britannic Nations.* London, 1929.  
 LATHAM, J. G. *Australia and the British Commonwealth.* London, 1929.  
 ROBERTS, S. H. *History of Australian Land Settlement (1788-1920).* Melbourne, 1924.  
 TURNER, H. G. *First Decade of the Australian Commonwealth: a Chronicle of Contemporary Politics, 1901-1910.* Melbourne, 1911.  
 WILKINSON, H. L. *The World's Population Problems and A White Australia.* London, 1930.  
 WILLARD, M. *History of the White Australia Policy.* Melbourne, 1923.

## INDUSTRIES AND RESOURCES.

- BILLIS, R. V., and KENYON, A. S. *Pastures New: An Account of the Pastoral Occupation of Port Phillip.* Melbourne, 1930.  
 BILLIS, R. V., and KENYON, A. S. *The Domesday Book of Port Phillip: or Supplement to Pastures New.* Melbourne, 1932.  
 HARDING, R. *Cotton in Australia: the Possibilities and Limitations of Australia as a Cotton-growing Country.* London, 1924.  
 HAWKESWORTH, A. *Australasian Sheep and Wool.* 6th edition. Sydney, 1930.  
 HOLMES, J. M. *An Atlas of Population and Production for New South Wales.* Sydney, 1931.  
 HUTCHINS, Sir D. E. *Discussion of Australian Forestry.* Perth, 1916.  
 MAULDON, F. R. E. *The Economics of Australian Coal.* Melbourne, 1929.  
 PEARSE, E. H. *Sheep, Farm, and Station Management.* 3rd edition. Melbourne, 1932.  
 TAYLOR, T. G. *Australia in its Physiographic and Economic Aspects.* 5th edition. Oxford, 1928.

## INDUSTRIAL CONDITIONS.

- ANDERSON, G. *Fixation of Wages in Australia.* Melbourne, 1929.  
 COGHLAN, Sir T. H. *Labour and Industry in Australia: from the First Settlement in 1788 to the Establishment of the Commonwealth in 1901.* 4 vols. Oxford, 1918.  
 HIGGINS, H. B. *A New Province for Law and Order: being a review by its late president for fourteen years of the Australian Court of Conciliation and Arbitration.* Sydney, 1922.  
 BUTCLIFFE, J. T. *History of Trade Unionism in Australia.* Melbourne, 1921.

# SELECTED LIST OF ONE HUNDRED REPRESENTATIVE WORKS, ETC. 865

## ECONOMIC CONDITIONS.

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# APPENDIX.

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[Recent information and returns which have come to hand since the various chapters were sent to press are given hereunder.]

## CHAPTER III.—GENERAL GOVERNMENT.

### § 3. Administration and Legislation.

#### 2. Governors-General and Ministers, p. 72.

(c) LYONS GOVERNMENT, FROM 6TH JANUARY, 1932.

DEPARTMENTS.	MINISTERS (17th October, 1933).
Prime Minister and Treasurer ..	Rt. Hon. JOSEPH ALOYSIUS LYONS.
Attorney-General, Minister for External Affairs and Minister for Industry	Rt. Hon. JOHN GREIG LATHAM, C.M.G., K.C.
Minister for Defence .. ..	*Rt. Hon. SIR GEORGE FOSTER PEARCE, K.C.V.O.
Postmaster-General .. ..	HON. ROBERT ARCHDALE PARKHILL.
Vice-President of the Executive Council	*HON. ALEXANDER JOHN McLAHLAN.
Minister for Health and Minister for Repatriation	HON. CHARLES WILLIAM CLANAN MARR, D.S.O., M.C., V.D.
Minister for the Interior .. ..	HON. JOHN ARTHUR PERKINS.
Minister for Commerce .. ..	HON. FREDERICK HAROLD STEWART.
Minister for Trade and Customs ..	HON. THOMAS WALTER WHITE, D.F.C., V.D.
Assistant Ministers .. ..	{ *HON. SIR HARRY SUTHERLAND WIGHTMAN, LAWSON. HON. JOSIAH FRANCIS. HON. JAMES ALLAN GUY. HON. RICHARD GARDINER CASEY, D.S.O., M.C.

\* Senator.

[NOTE].—The Right Hon. Stanley Melbourne Bruce, C.H., M.C., Minister without Portfolio to 6th October, 1933, was appointed High Commissioner for Australia in London on 7th October, 1933.

## CHAPTER VI.—TRANSPORT AND COMMUNICATION.

## E. MOTOR VEHICLES.

5. Motor Vehicles Registered, p. 197.—Motor vehicles registered at 30th June, 1933, were as follow :—

## MOTOR VEHICLES REGISTERED AT 30th JUNE, 1933.

State or Territory.	Motor Cars.	Commercial Vehicles.	Motor Cycles.	All Vehicles.	
				No.	Per 1,000 of Population.
New South Wales (a) ..	152,717	46,399	23,354	222,470	85.5
Victoria .. .. .	124,609	31,554	23,439	179,602	98.7
Queensland .. ..	(b) 81,492	(c) .. .. .	7,725	89,217	94.1
South Australia ..	39,036	12,073	8,520	59,629	102.6
Western Australia ..	27,710	12,885	5,992	46,587	106.1
Tasmania .. .. .	11,557	2,457	3,741	17,755	78.0
North Australia ..	369	206	39	614	} 139.9
Central Australia ..	42	20	4	66	
Federal Capital Territory ..	967	243	82	1,292	
Australia .. .. .	438,499	105,837	72,896	617,232	93.1

(a) Approximate figures only, on account of Annual and Quarterly Registration Certificates.  
 (b) Includes Commercial Vehicles. (c) Included under Motor Cars.

## CHAPTER VII.—TRADE.

## § 2. Commonwealth Legislation affecting Oversea Trade, pp. 224-226.

## THE OTTAWA CONFERENCE, 1932.

The Imperial Economic Conference opened at Ottawa, on the 21st July, 1932, and continued until the 20th August. Delegates were present from the United Kingdom, Canada, Australia, New Zealand, Union of South Africa, Irish Free State, Newfoundland, India and Southern Rhodesia.

The Commonwealth of Australia was represented by the Rt. Hon. S. M. Bruce, C.H., M.C., M.P., Minister without portfolio, and the Hon. H. S. Gullett, M.P., Minister of State for Trade and Customs. The delegates were accompanied by an official staff of advisers and business consultants.

An official report of the Conference has been issued, together with a supplementary volume, showing the texts of the Trade Agreements concluded during the Conference.

Subjects considered by the Conference were in five principal divisions, and included—  
 (a) Matters relating to the Promotion of Trade within the British Commonwealth ;  
 (b) Matters relating to Customs Administration ; (c) Matters relating to Commercial Relations with Foreign Countries ; (d) Matters relating to Monetary and Financial Questions ; and (e) Matters relating to Methods of Economic Co-operation.

Under division (a) "Promotion of Trade within the Commonwealth," Trade Agreements were drawn up for the extension of mutual trade by means of reciprocal preferential tariffs. In regard to these Agreements the Conference adopted the following resolution:—

"The nations of the British Commonwealth having entered into certain Agreements with one another for the extension of mutual trade by means of reciprocal preferential tariffs, this Conference takes note of these Agreements, and records its conviction:—

That by the lowering or removal of barriers among themselves provided for in these Agreements the flow of trade between the various countries of the Empire will be facilitated, and that by the consequent increase of purchasing power of their peoples the trade of the world will also be stimulated and increased;

Further, that this Conference regards the conclusion of these Agreements as a step forward which should in the future lead to further progress in the same direction and which will utilize protective duties to ensure that the resources and industries of the Empire are developed on sound economic lines."

The Trade Agreement between the Government of the United Kingdom and the Government of the Commonwealth of Australia was signed on the 20th August, 1932.

According to the Agreement, the Government of the United Kingdom agreed to the following Articles:—

(1.) The Government to undertake that Orders shall be made in accordance with the provisions of Section 4 of the Import Duties Act, 1932, which will ensure the continuance after the 15th November, 1932, of entry free of duty into the United Kingdom of Australian goods which comply with the laws and statutory regulations for the time being in force affecting the grant of Imperial preference and which by virtue of that Act are now free of duty, subject, however, to the reservations set forth in Schedule A as follows:—As regards eggs, poultry, butter, cheese and other milk products, free entry for produce of Australia will be continued for three years certain. The Government of the United Kingdom reserve to themselves the right after the expiration of the three years, if they consider it necessary in the interests of the United Kingdom producer to do so, to review the basis of preference, so far as relates to the articles enumerated and after notifying the Commonwealth Government either to impose a preferential duty on produce of Australia, or, in consultation, to bring such produce within any system which may be put into operation for the quantitative regulation of supplies from all sources in the United Kingdom.

(2.) The Government to invite Parliament to pass the legislation to impose on the foreign goods specified in Schedule B the duties of customs shown in that Schedule in place of the duties (if any) now leviable.

The commodities and rates of duty specified in Schedule B are as follow:—Wheat, in grain, 2s. per quarter; butter, 15s. per cwt.; cheese, 15 per cent. ad valorem; apples, raw, and pears, raw, 4s. 6d. per cwt.; apples, canned, 3s. 6d. per cwt., in addition to the duty on sugar content; other canned fruits, 15 per cent. ad valorem in addition to the duty on sugar content; dried fruits, now dutiable at 7s., 10s. 6d. per cwt.; eggs in shell—(a) not exceeding 14 lb. in weight per great 100, 1s. per great 100; (b) over 14 lb., but not exceeding 17 lb., 1s. 6d. per great 100; (c) over 17 lb. 1s. 9d. per great 100; condensed milk, whole, sweetened, 5s. per cwt., in addition to duty on sugar content; condensed milk, whole, not sweetened, 6s. per cwt.; milk powder and other preserved milk, not sweetened, 6s. per cwt.; honey, 7s. per cwt.; copper, unwrought, refined or not, in ingots, bars, blocks, etc., 2d. per lb.; oranges, raw, 3s. 6d. per cwt. from 1st April to 30th November; grape fruit, raw, 5s. per cwt. from 1st April to 30th November; grapes (other than hothouse) 1½d. per lb. from 1st February to 30th June.

(3.) The Government to invite Parliament to pass the legislation necessary to secure to Australian goods of the kinds specified in Schedule C which comply with the law and statutory regulations for the time being in force affecting the granting of Imperial preference, the margins of preference specified therein over similar foreign goods.

Schedule C—Wine not exceeding 27 degrees of proof spirit—Margin of preference—2s. per gallon.

(4.) The Government undertake that the general ad valorem duty of 10 per cent. imposed by Section 1 of the Import Duties Act, 1932, on the foreign goods specified in Schedule D shall not be reduced except with the consent of the Government of the Commonwealth of Australia.

The goods specified in Schedule D are as follow :—Leather, tallow, canned meat, zinc, lead, barley, wheat flour, macaroni, dried peas, dressed poultry, casein, eucalyptus oil, meat extracts and essences, copra, sugar of milk, sausage casings, wattle bark, asbestos, and dried fruits, other than currants, not specified in Schedule B.

(5.) The duties provided in this Agreement on foreign wheat in grain, copper, lead and zinc on importation into the United Kingdom are conditional in each case on Empire producers of wheat in grain, copper, lead and zinc respectively continuing to offer those commodities on first sale in the United Kingdom at prices not exceeding the world price.

(6.) The Government in the United Kingdom and the Commonwealth Government agree that arrangements shall be made for the regulation of imports of frozen mutton and lamb and frozen and chilled beef into the United Kingdom in accordance with the declaration of the Government of the United Kingdom in Schedule H.

The Declaration by the Government of the United Kingdom (Schedule H) provides, *inter alia*, that, owing to the present wholesale price of meat being at a level which had resulted in grave depression in the live stock industries of the United Kingdom and the Dominions, it is essential to take whatever steps may appear feasible to raise the wholesale prices of meat in the United Kingdom market to such a level as will maintain efficient production.

With a view to the earliest possible improvement of the position, the Government in the United Kingdom will, during the currency of the Ottawa Agreement, arrange for the regulation of importations of meat into the United Kingdom. The policy of the Government in relation to meat production is, first, to secure development of home production, and, secondly, to give to the Dominions an expanding share of imports into the United Kingdom.

In order to co-operate in the carrying out of this policy the Commonwealth Government agrees to limit the export of frozen mutton and lamb to the United Kingdom for the year 1933 to an amount equivalent to the total imports from Australia during the year ended 30th June, 1932, in consideration of the United Kingdom Government—

- (a) Arranging for the regulation of the importation of foreign meat in accordance with an agreed programme between the Governments, and including within its scope frozen mutton and lamb, and frozen beef and chilled beef.
- (b) Arranging, as soon as possible after receiving the report of the Commission on the re-organization of the pig industry in the United Kingdom, for the quantitative regulation of the supplies of bacon and hams coming on to the United Kingdom market.
- (c) Undertaking that no restriction will be placed upon the importation of any meat from Australia during the period named in the agreed programme.

During the year 1933 the two Governments, in consultation, will consider the best means of ensuring an improved price situation and the more orderly marketing of supplies. Should no permanent policy be agreed upon as the result of the consultation, the Government in the United Kingdom undertakes, after the expiry of the period named in the agreed programme and during the remainder of the Agreement concluded at Ottawa :—

- (a) To arrange for the continuance, unless otherwise agreed between the Governments concerned, of the regulation of the imports of foreign meat at the rates in force at the end of the period named in the agreed programme.
- (b) In any action affecting the imports of meat into the United Kingdom which the United Kingdom Government may take on behalf of United Kingdom agriculture, to the policy of giving to the Dominions an expanding share of imports into the United Kingdom.

The Declaration provides that should it appear that, after inquiry, at any time, in consequence of a restriction upon foreign imports, the supplies of meat of any kind are inadequate to meet the requirements of consumers in the United Kingdom, then the Government may remove any such restriction until supplies are again adequate.

*The Agreed Programme.*—Statement showing the maximum quantities of foreign meat to be imported into the United Kingdom during each quarter of the period 1st January, 1933, to 30th June, 1934, expressed as percentages of the quantities imported in the corresponding quarters of the twelve months ended 30th June, 1932.

The percentages fixed were as follow :—Frozen mutton and lamb—First quarter, 90 per cent. reducing by 5 per cent. each quarter, to 65 per cent. in last quarter ; frozen beef (carcasses and boned beef), similar percentages ; chilled beef—100 per cent.

The Commonwealth Government recognizing the interrelation of all meat products, and that the object of the above regulation of imports into the United Kingdom is to raise the price level of frozen meat, undertakes to use its best endeavours to ensure that during the year 1933 the exports of frozen beef from Australia to the United Kingdom shall not be increased to an extent exceeding 10 per cent. of the quantities exported for the year ending 30th June, 1932.

(7.) The Government of the United Kingdom will invite the Governments of the non-self-governing Colonies and Protectorates to accord to Australia any preference which may for the time being be accorded to any other part of the British Empire, with the exception of preferences accorded by Northern Rhodesia to the Union of South Africa, Southern Rhodesia, and Territories of the South African High Commission, and further will invite the Governments of the Colonies and Protectorates shown in Schedule E to accord to Australia new or additional preferences on the commodities and at the rates shown therein.

Schedule E.—The countries to be invited to accord preference and the commodities affected are as follows :—The Bahamas, Barbados, Bermuda, British Guiana, British Honduras, Jamaica, Leeward Islands, Trinidad and Tobago, and the Windward Islands—butter ; The Bahamas—brandy and wine ; Barbados, British Guiana, Trinidad—brandy ; Barbados, Jamaica and Trinidad—condensed and powdered milk ; Bermuda—canned meat, canned fruit and vegetables ; British Guiana and Trinidad—wines ; Jamaica—biscuits (unsweetened), canned meat, fruit (dried), jams, jellies and preserved fruit ; Ceylon—bacon and ham, biscuits, brandy, canned fruit and vegetables, cheese, fruits (fresh), condensed and powdered milk, and wines ; Cyprus—butter, cheese and timber ; The Federated and Unfederated Malay States—brandy, butter (frozen and tinned), canned fruit and vegetables, confectionery, condensed and powdered milk, and wines ; Hong Kong—brandy ; Malta—biscuits, brandy, flour and condensed and powdered milk ; Mauritius—bacon and ham, cheese ; Straits Settlements—brandy and wine.

By the Agreement the Government of the Commonwealth of Australia agrees—

(8.) To invite Parliament to pass the legislation making the tariff changes necessary to give effect to the preference formula set forth in Part I. of Schedule F, subject to the exceptions indicated in Part II. of that Schedule, and further undertakes that existing preferential margins which exceed those laid down in this formula shall be maintained subject, however, to the right of the Government in the Commonwealth to reduce the existing margins of preference in the case of goods of the kinds specified in Part III. of that Schedule to an extent not exceeding the amounts shown therein.

Schedule F (Part I.).—Subject to the exceptions enumerated in Part II., goods produced or manufactured in the United Kingdom, and imported into Australia shall, on compliance with the regulations for the time being in force governing the entry of goods at preferential rates of duty, enjoy preferences in accordance with the following formula :—

- (a) When goods the produce or manufacture of the United Kingdom are free of duty, or are liable to duties of customs not exceeding 19 per cent. ad valorem, the difference between the British Preferential Tariff rate and the rate upon similar goods from the most favoured foreign country shall be at least 15 per cent. ad valorem.

- (b) When goods the produce or manufacture of the United Kingdom are liable to duties of customs exceeding 19 per cent. ad valorem, and not exceeding 29 per cent. ad valorem, the difference between the British Preferential Tariff rate and the rate upon similar goods from the most favoured foreign country shall be at least 17½ per cent. ad valorem.
- (c) When goods the produce or manufacture of the United Kingdom are liable to duties of customs exceeding 29 per cent. ad valorem, the difference between the British Preferential Tariff and the rate upon similar goods from the most favoured foreign country shall be at least 20 per cent. ad valorem, provided that in no case shall this margin be applied so as to result in a rate of duty exceeding 75 per cent. ad valorem.

The above formula shall not apply in the case of goods of a class or kind not commercially produced or manufactured in the United Kingdom, or in the case of particular goods in respect of which it may be agreed that its application is unnecessary. The formula also shall not apply to certain goods, shown in Schedules attached to the Agreement, it being understood that the existing preference shall be maintained except where otherwise indicated in the Schedules.

Part II. of Schedule F shows the minimum margin of preference to be accorded to certain specified goods, while Part III. shows the maximum amount of reduction in preference to be made on goods specified. The Schedules are too lengthy to be given in this statement.

(9.) To undertake that protection by tariffs shall be afforded only to those industries which are reasonably assured of sound opportunities for success.

(10.) To undertake that during the currency of this Agreement the Tariff shall be based on the principle that protective duties shall not exceed such a level as will give United Kingdom producers full opportunity of reasonable competition on the basis of the relative cost of economical and efficient production, provided that in the application of such principle special consideration may be given to the case of industries not fully established.

(11.) To undertake that a review shall be made as soon as practicable by the Australian Tariff Board of existing protective duties in accordance with the principles laid down in Article 10 hereof, and that after the receipt of the report and recommendation of the Tariff Board the Commonwealth Parliament shall be invited to vary, wherever necessary, the tariff on goods of United Kingdom origin in such manner as to give effect to such principles.

(12.) To undertake that no new protective duty shall be imposed, and no existing duty shall be increased on United Kingdom goods to an amount in excess of the recommendation of the Tariff Tribunal.

(13.) To undertake that United Kingdom producers shall be entitled to full rights of audience before the Tariff Board when it has under consideration matters arising under Articles 11 and 12.

(14.) To undertake in so far as concerns goods the produce or manufacture of the United Kingdom :—

- (a) to repeal as soon as practicable the Proclamation published in *Commonwealth Gazette* No. 46 of 19th May, 1932, prohibiting the importation of certain goods ;
- (b) to remove as soon as practicable the surcharges imposed by resolution introduced into the Parliament on the 24th May, 1932 ; and
- (c) to reduce or remove primage duty as soon as the finances of Australia will allow.

(15.) To undertake to accord to the non-self-governing Colonies and Protectorates and the Mandated Territories of Tanganyika, the Cameroons under British Mandate and Togoland under British Mandate, preferences on the commodities and at the rates shown in Schedule G of the Agreement and any preferences for the time being accorded to the United Kingdom if the Government in the United Kingdom so request.

Provided that the Commonwealth Government shall not be bound to accord any preferences to any Colony or Protectorate which, not being precluded by international obligations from according preferences, either (i) accords to Australia no preferences, or (ii) accords to some other part of the Empire (in the case of Northern Rhodesia, excepting the Union of South Africa, Southern Rhodesia, and the territories of the South African High Commission) preferences not accorded to Australia.

Schedule G.—The commodities on which preferences may be accorded are:—Asphalt, bitumen and natural pitch; dry gums; essential oils, bananas, cocoa (raw), fruit juices, fruits preserved in liquid or partly preserved or pulped. coco-nuts (whole), plumbago and graphite, sago and tapioca, spirits—bitters and rum, sponges, timber (logs), tobacco, unmanufactured for cigars, tobacco, manufactured, cigars, and unground spices.

(16.) The Agreement is to be regarded as coming into effect as from the date hereof (20th August, 1932), subject to the necessary legislative or other action being taken as soon as may be practicable hereafter. It shall remain in force for a period of five years, and if not denounced six months before the end of that period shall continue in force thereafter until a date six months after notice of denunciation has been given by either party.

In the event of circumstances arising which, in the judgment of the Governments concerned, necessitate a variation in the terms of the Agreement, the proposal to vary those terms shall form the subject of consultation between the two Governments.

## § 5. Balance of Payments, p. 234.

### Australian Balance of Payments, 1928–29 to 1932–33.

1. **General.**—In the following tables, tentative estimates have been made of the main items entering into the Australian balance of international payments during the five years ending in June, 1933. While insufficient direct statistical data are available to provide a completely accurate presentation of the position, it is possible, by resorting to indirect methods of estimation, to narrow the range of uncertainty. Additional data are constantly becoming available, however, while the methods of estimation adopted are susceptible of gradual improvement. The conclusions reached at this stage of the investigation, therefore, must be regarded as first approximations rather than as final results pretending to a substantial degree of accuracy.

The calculations have been carried out in terms of English sterling throughout. For the more important items, the figures for 1932–33 will require little revision. In a few cases, items of minor significance have been estimated in 1932–33 on the basis of the previous year's figures, with an allowance for known tendencies. Figures thus subject to material revision have been marked with an asterisk.

2. **The Balance of International Payments.**—The form in which the items entering into the balance of payments have been set out approximates fairly closely to that used by the League of Nations in its annual volumes on *Balances of Payments*, though modifications have been introduced, especially in the "Summary Tables", in order to present the results more clearly to the general reader.

The individual credit and debit "current" items appear in the first statement (A), and are followed by a statement (B) of the inward and outward movements of capital, so far as they can be traced. The totals of these statements are then set out in the "Summary Tables", in which is included a statement of monetary gold movements (C). The final statement of the balance of payments brings together A, B and C, at the end of the "Summary Tables".

If the information contained in the primary statements were both accurate and exhaustive, the balances on current account and the monetary movement of gold should be exactly offset by contra balances on capital account each year. In practice, differences inevitably appear, on account of errors of estimation, omissions and time-lags. The discrepancies attributable to time-lags will be greater, of course, the greater are the fluctuations in the total volume of transactions. During the five years at present considered these fluctuations have been unparalleled in their violence.

## A.—CURRENT MOVEMENTS OF GOODS, SERVICES AND GOLD PRODUCTION.

Inward or Credit Movements (Exports).	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
<b>I. MERCHANDISE.</b>					
1. Merchandise, including silver bullion and coins other than gold, exported	138,646	98,255	76,628	75,467	78,814
2. Ships' stores exported	2,316	2,047	1,401	1,225	1,295
3. Value of gold produced, in all forms	1,871	1,873	2,156	3,609	4,660
4. Deduct household effects, prizes, &c., exported	— 111	— 102	— 92	— 75	— 62
5. Deduct for over-valuation of wool exported	— 1,718	— 1,195	— 613	..	..
	141,004	100,873	79,480	80,226	84,707
<b>II. INTEREST AND DIVIDENDS.</b>					
6. Interest on Commonwealth Government investments overseas	90	181	161	174	161
7. Interest on Sinking Funds investments overseas	52	45	53	58	66
8. Interest on "other" assets overseas	295	490	610	1,280	935
9. Interest on net assets overseas of Australian banks—					
(a) In London	2,433	1,578	488	1,086	246
(b) In New Zealand	14	82	149	146	85
10. Interest on New Zealand Government debt domiciled in Australia	269	293	307	216	223*
11. Interest on New Zealand Local Bodies' debt domiciled in Australia	388	436	426	415*	391*
12. Interest on local investments in Australian Government securities domiciled overseas, n.e.i.	?	?	?	?	?
13. Interest and dividends on other long and short term investments overseas, n.e.i.	?	?	?	?	?
	3,341	3,105	2,194	3,375	2,107
<b>III. OTHER SERVICES.</b>					
14. Insurance earnings overseas by Australian companies—					
(a) Life	..	..	..	..	..
(b) Fire, marine and general	30	30	25	20	20
15. Earnings of Australian ships on account of all overseas freight traffic	646	663	537	523	538
16. Expenditure of foreign ships in Australian ports	6,297	6,697	4,505	3,891	4,231
17. Duties collected on ships' stores consumed in Australian waters	83	78	58	48	43
18. Expenditure in Australia by overseas tourists and travellers	1,295	1,202	827	717	750
19. Funds brought in by immigrants and returned emigrants	1,072	705	360	208	226
20. Emigrants' remittances and money gifts from overseas, n.e.i.	560	578	546	426	376
21. Diplomatic, consular and similar expenditure in Australia	120	120	110	100	100
22. War pensions received from overseas	381	451	446	436	297
23. Government receipts in cash on account of reparations	876	878	1,265	..	..
24. Government receipts from overseas, n.e.i.	12	12	12	12	11
	11,372	11,414	8,691	6,381	6,592



A.—CURRENT MOVEMENTS OF GOODS, SERVICES AND GOLD  
PRODUCTION—*continued.*

Outward or Debit Movements (Imports).	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
<b>I. MERCHANDISE.</b>					
25. Merchandise, including silver bullion and coins other than gold, imported	143,300	130,787	60,586	44,059	56,847
26. Value of outside packages of imports (unrecorded)	2,690	1,315	..	..	..
27. Add for under-valuation of freight, insurance and sundry charges	3,260	5,832	3,229	3,387	4,299
28. Add for under-valuation of films imported	605	1,071	421	147	122
29. Deduct household effects, prizes, &c., imported	— 202	— 181	— 120	— 111	— 140
	149,653	138,824	64,116	47,482	61,128
<b>II. INTEREST AND DIVIDENDS.</b>					
30. Interest on Government debt overseas—					
Commonwealth—					
(a) Long-term securities	7,744	8,530	8,534	5,068	4,960
(b) Short-term securities					
(c) Bank advances or balances, net	— 24	171	189	5	— 2
States—					
(d) Long-term securities	19,562	19,193	18,893	19,223	19,239
(e) Short-term securities	..	222	472	1,312	662
(f) Bank advances or balances, net	42	592	1,500	— 6	— 7
31. Interest on Local Bodies' debt overseas	1,487	1,485	1,503	1,641	1,681
32. Interest on net assets in Australia of oversea banks	421	527	445	305	285
33. Interest and dividends on long-term private capital invested in Australia	8,750	8,750	5,932	4,122	4,191
34. Interest on trade moneys held temporarily in Australia on oversea account	..	..	332	337	285
35. Deduct contribution of British Government to interest on migration loans	— 109	— 126	— 131	— 112	— 110
	37,873	39,344	36,309	31,895	31,184
<b>III. OTHER SERVICES.</b>					
36. Insurance earnings in Australia by oversea companies—					
(a) Life	— 2	21	24	16	18*
(b) Fire, marine and general	975	944	459	805	800*
37. Expenditure overseas by Australian tourists and travellers, including fares	4,375	4,044	1,956	1,553	1,880
38. Funds taken out by emigrants and returning immigrants, including fares	1,197	1,523	1,401	782	695
39. Immigrants' remittances and money gifts sent overseas, n.e.i.	801	847	702	329	321
40. Commonwealth contributions to assisted passages	133	58	10	..	..
41. Diplomatic, consular and similar expenditure overseas	170	177	158	134	112
42. Expenditure overseas by Department of Defence, n.e.i.	1,285	357	137	81	84
43. War pensions paid overseas	342	367	374	325	264
44. Contributions to upkeep of soldiers' graves	95	95	95	..	..
45. Oversea mail subsidy	130	130	130	110	110
46. Loan flotation and management expenses and stamp duties on transfers	430	174	35	31	510
47. Government expenditure overseas, n.e.i.	121	108	85	79	90
	10,052	8,845	5,566	4,245	4,884

## B.—CAPITAL MOVEMENTS.

Inward or Credit Movements (Increase of Liabilities.)	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
48. Government debt domiciled overseas—					
Commonwealth—					
(a) Long-term securities ..	6,279	7,941	— 1,952	— 103	— 360
(b) Short-term securities ..	..	175	8,645	1,400	..
(c) Bank advances or balances, net .. ..	— 1,665	10,618	— 7,817	— 2,590	8
States—					
(d) Long-term securities ..	— 4,164	— 11,595	— 616	— 1,675	— 1,087
(e) Short-term securities ..	..	4,825	19,430	2,850	— 3,200
(f) Bank advances or balances, net .. ..	9,580	12,433	— 14,686	— 3,743	— 711
49. Local Bodies' debt domiciled overseas	1,070	— 40	952	— 100	— 205
50. "Other" public debt held overseas, n.e.i. .. ..	..	..	..	..	1,000
51. Net assets in Australia of overseas banks	1,772	1,754	— 1,538	— 112	349
52. Net assets in Australia of overseas life insurance companies .. ..	..	4	9	2	..*
53. Long-term private capital invested in Australia .. ..	?	?	?	?	?
54. Trade moneys held temporarily in Australia on overseas account ..	..	4,031	6,390	558	— 1,673
	12,872	30,146	8,817	— 3,513	— 5,879

Outward or Debit Movements (Increase of Assets).	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
55. Commonwealth Government investments overseas .. ..	— 86	— 172	— 155	— 29	— 699
56. Sinking Funds investments in securities domiciled overseas, or bank balances	— 7,768	— 33	247	— 84	2,028
57. "Other" assets overseas .. ..	1,260	14,065	8,819	3,484	16,461
58. Net assets overseas of Australian banks—					
(a) In London .. ..	— 1,432	— 28,272	— 3,726	17,599	— 9,007
(b) In New Zealand .. ..	— 846	3,547	— 429	484	— 2,565
59. New Zealand Government debt domiciled in Australia .. ..	— 1	109	— 86	— 204	..*
60. New Zealand Local Bodies' debt domiciled in Australia .. ..	314	814	318	..*	..*
61. Local investments in Australian Government securities domiciled overseas, n.e.i. .. ..	?	?	?	?	?
62. Other long and short term investments overseas, n.e.i. .. ..	?	?	?	?	?
	— 8,539	— 9,942	4,988	21,250	6,218

## SUMMARY TABLES.

A. Current Movements of Goods, Services, and Gold Production.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
Inward or Credit Movements (Exports)—					
I. Merchandise .. .. .	141,004	100,878	79,480	80,226	84,707
II. Interest and Dividends .. ..	3,541	3,105	2,194	3,375	2,107
III. Other Services .. .. .	11,372	11,414	8,691	6,381	6,592
Total Credits .. .. .	155,917	115,397	90,365	89,982	93,406
Outward or Debit Movements (Imports)—					
I. Merchandise .. .. .	149,653	138,824	64,116	47,482	61,128
II. Interest and Dividends .. ..	37,873	39,344	30,309	31,895	31,184
III. Other Services .. .. .	10,052	8,845	5,566	4,245	4,884
Total Debits .. .. .	197,578	187,013	105,991	83,622	97,196
Excess of Debits (-) or Credits (+) .. .. .	- 41,661	- 71,616	- 15,626	+ 6,360	- 3,790
<b>B. Capital Movements.</b>	<b>1928-29.</b>	<b>1929-30.</b>	<b>1930-31.</b>	<b>1931-32.</b>	<b>1932-33.</b>
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
Inward or Credit Movements (Increase of Liabilities) .. .. .	12,872	30,146	8,817	- 3,513	- 5,879
Outward or Debit Movements (Increase of Assets) .. .. .	- 8,559	- 9,942	4,988	21,250	6,218
Excess of Debits (-) or Credits (+)	+ 21,431	+ 40,088	+ 3,829	- 24,763	- 12,097
<b>C. Monetary Gold Movements.</b>	<b>1928-29.</b>	<b>1929-30.</b>	<b>1930-31.</b>	<b>1931-32.</b>	<b>1932-33.</b>
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
63. Inward or Credit Movements (Exports in excess of New Production) .. ..	1,116	24,999	10,120	5,927	13,381
64. Outward or Debit Movements (Imports) .. .. .	348	294	374	654	1,141
Excess of Debits (-) or Credits (+)	+ 768	+ 24,705	+ 9,746	+ 5,273	+ 12,240
<b>Balance of Payments.</b>	<b>1928-29.</b>	<b>1929-30.</b>	<b>1930-31.</b>	<b>1931-32.</b>	<b>1932-33.</b>
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
Deficiency (-) or Surplus (+) on Current Account .. .. .	- 41,661	- 71,616	- 15,626	+ 6,360	- 3,790
Deficiency (-) or Surplus (+) on Monetary Gold Account .. .. .	+ 768	+ 24,705	+ 9,746	+ 5,273	+ 12,240
Total .. .. .	- 40,893	- 46,911	- 5,880	+ 11,633	+ 8,450
Deficiency (-) or Surplus (+) on Capital Account (so far as it has been traced) ..	+ 21,431	+ 40,088	+ 3,829	- 24,763	- 12,097
Balance, accounted for by lags, errors and omissions, especially in private capital items .. .. .	+ 19,462	+ 6,823	+ 2,051	+ 13,130	+ 3,647

The balances appearing at the foot of the above table call for more detailed investigation than is possible at this juncture. The most serious omission from the calculations is the increase, which has undoubtedly taken place, in oversea capital privately invested in Australia. It may well be, also, that the inward movement of short-term speculative moneys has been greater than the amounts included above. Taking these facts into consideration, the balances shown in the last four years do not appear unreasonably large. In 1928-29 the balance not specifically accounted for amounts to approximately £19½ millions. Some part of this discrepancy is possibly due to the actual receipt in 1928-29 of part of the oversea public borrowings of 1927-28, which amounted, for the States and the Commonwealth as a whole, to the huge sum of £54,254,627. Further discussion of the possibilities must await a fuller exploration of the balance of payments in earlier years. Attention should be called, however, to the fact that the estimates of the banks' oversea balances are based on average liabilities and assets for the June quarters of each year. The use of quarterly averages, the only figures at present available, involves possibilities of error, particularly when large transactions take place near the end of the financial year.

3. The Balance of International Indebtedness.—The annual movements of capital, inward and outward, have already been dealt with. A supplementary statement may now be given setting out the total capital sums outstanding at successive dates. For convenience they have been termed "liabilities" and "assets". Some of the items included, however, are not of the nature of fixed money obligations, and the totals should be accepted with caution. Further qualifications will be found in the notes on capital items.

### BALANCE OF INTERNATIONAL INDEBTEDNESS.

(Approximate.)

Liabilities.	At 30th June—						
	1928.	1929.	1930.	1931.	1932.	1933.	
	000.	000.	000.	000.	000.	000.	
65. Government debt domiciled overseas—							
Commonwealth—							
(a) Long-term securities { (\$4,866) (£ stg.)	17,291	17,156	17,156	17,156	17,116	16,890	
(b) Short-term securities (£ stg.) ..	136,216	142,630	150,571	148,619	148,556	148,422	
(c) Bank advances or balances, net (£ stg.) ..	..	..	175	8,820	10,220	10,220	
States—	150	Cr. 1,515	9,103	1,286	Cr. 1,304	Cr. 1,296	
(d) Long-term securities { (\$4,866) (£ stg.)	30,990	30,779	30,687	30,436	29,964	29,581	
(e) Short-term securities (£ stg.) ..	385,671	381,718	370,215	369,850	368,647	368,252	
(f) Bank advances or balances, net (£ stg.) ..	..	..	4,825	24,255	27,105	23,905	
66. Local Bodies debt domiciled overseas (mainly £ stg.) ..	Cr. 3,957	5,623	18,056	3,370	Cr. 373	Cr. 1,084	
67. "Other" public debt held overseas, n.e.i. (£ stg.) ..	26,713	27,783	27,743	28,695	28,595	28,390	
68. Net assets in Australia of oversea banks (£ A.) ..	..	..	..	..	..	1,000	
69. Net assets in Australia of oversea life insurance companies (£ A.) ..	6,135	7,907	9,661	7,846	7,703	8,140	
70. Long-term private capital invested in Australia (£ A.) .. approx.	42	42	46	57	59	59*	
71. Trade moneys held temporarily in Australia on oversea account (£ A.) ..	175,000	175,000	175,000	175,000	175,000	175,000	
	..	..	4,031	11,571	12,281	10,186	
	£ stg. ..	774,251	787,123	817,269	584,895	581,446	577,809
Totals ..	£ A. ..	..	..	..	194,474	195,043	193,385
	\$4,866 ..	..	..	..	47,592	47,080	46,471

BALANCE OF INTERNATIONAL INDEBTEDNESS—*continued.*

(Approximate.)

Assets.	At 30th June—					
	1928.	1929.	1930.	1931.	1932.	1933.
72. Commonwealth Government investments overseas (£ stg.) .. .. .	000.	000.	000.	000.	000.	000.
73. Sinking Funds investments in securities domiciled overseas, or bank balances (£ stg.) .. .. .	3,320	3,234	3,062	2,907	2,878	2,179
74. "Other" assets overseas (£ stg.) .. .. .	8,899	1,131	1,098	1,345	1,261	3,289
75. Net assets overseas of Australian banks—	5,721	6,981	21,046	29,865	33,349	49,810
(a) In London (£ stg.) .. .. .	52,704	51,272	23,000	19,274	36,873	27,866
(b) In New Zealand (£ N.Z.) .. .. .	707	Dr. 139	3,408	2,949	3,481	488
76. New Zealand Government debt domiciled in Australia (£ A.) .. .. .	4,169	4,168	4,277	4,175	3,915	3,915*
77. New Zealand Local Bodies debt domiciled in Australia (£ A.) .. .. .	7,072	7,386	8,200	8,575	8,575*	8,575*
78. Local investments in Australian Government securities domiciled overseas, n.e.i. .. .. .	?	?	?	?	?	?
79. Other long and short-term investments overseas, n.e.i. .. .. .	?	?	?	?	?	?
Totals .. .. .	82,592	74,033	64,091	53,391	74,361	83,144
£ stg. .. .. .	..	..	..	2,949	3,481	488
£ N.Z. .. .. .	..	..	..	12,750	12,490	12,490
£ A. .. .. .	..	..	..	..	..	..

4. Notes on Goods, Services and Gold Production.—The estimates of the current movements of goods, services and gold production presented in the foregoing statements have in some cases been based on conjectural materials, while in others they represent the bald results of lengthy and intricate calculations. A full explanation of the sources of the data and the methods followed in their elaboration must be deferred. Meanwhile some indication of the degree of validity attaching to the less obvious of the estimates may be gained from the following notes:—

*Item 1.*—Includes the recorded (sterling) values of all exports, other than gold in all forms, and ships' stores, which are recorded separately.

*Item 3.*—Since Australia is a gold-producing country, the gold production of the year has been regarded as an export of merchandise. Exports in excess of actual production are entered in Statement C. (In the event of exports falling short of production, it would be necessary, of course, to enter the deficiency, in Statement C, as a debit item.)

*Item 4.*—Since household effects, prizes, etc., are not paid for, they must be deducted from exports at their recorded values.

*Item 5.*—A comparison of the recorded export values of wool per pound with the prices recorded by the wool-selling brokers reveals discrepancies in the earlier years which cannot be satisfactorily accounted for. The adjustment has been made on the basis of the brokers' prices, plus an allowance for charges incurred between store and ship. The recorded export values in 1931-32 and 1932-33 are believed to be correct, in consequence of revised methods of valuation.

*Item 6.*—From Commonwealth Budgets.

*Item 7.*—See item 73. Partly estimated.

*Item 8.*—From confidential information received.

*Item 9 (a).*—Estimated at the average rate for 3 months' bankers' acceptances, on the averages of the amounts outstanding at the beginning and end of each year.

(*b.*)—Estimated at 5 per cent. on the averages of the amounts outstanding at the beginning and end of each year.

*Items 10 and 11.*—Actual amounts paid by the New Zealand Government and Local Bodies.

*Item 14 (a).*—The amounts tentatively included under this heading in last year's statement have not been included, as it is not considered that this item represents a net credit to Australia.

(*b.*)—Estimated from New Zealand business of Australian companies.

*Item 15.*—Total freight charges on imports have been estimated under item 27. The share earned by Australian ships was allocated in accordance with the tonnage of oversea cargo discharged by Australian ships as compared with the tonnage discharged by foreign ships. The total freight charges on exports were separately estimated by applying actual and estimated freight rates to quantities exported. The total earnings on exports were then allocated according to the tonnage of oversea cargo shipped by Australian ships and foreign ships respectively.

*Item 16.*—Estimated at 22½ per cent. of the total freight earnings of foreign shipping, from data in *Report of the Overseas Shipping Conference (1929)* and sundry sources. The figures so estimated have been regarded as being expressed in terms of Australian currency. The item covers numerous expenses (other than stores, fuel and duties) in Australian ports, and crews' expenditures in Australia.

*Item 18.*—Estimated in detail from the numbers of "temporary visitors arriving" from various groups of countries in each year. The average length of stay and average expenditure per head assumed, differ considerably for the various classes of visitor.

*Item 19.*—Estimated at £30 per head for immigrants from British and North American countries, and £20 per head for all other immigrants, in the first three years; and at £25 and £15 respectively in 1931-32 and 1932-33.

*Item 20.*—Estimated as in Roland Wilson, *Capital Imports and the Terms of Trade*, pp. 22-26.

*Item 21.*—Very rough estimate.

*Item 23.*—No reparations were received in 1931-32 and 1932-33, on account of the Hoover Moratorium.

*Item 24.*—From Commonwealth Budgets.

*Item 25.*—Includes the recorded values of all imports, other than gold. The recorded values of merchandise imports are the sterling f.o.b. values plus an arbitrary addition of 10 per cent. as an allowance for freight and charges.

*Item 26.*—"Outside packages" were not separately recorded until the second half of 1929-30. Previously it is probable that they were excluded almost entirely from the recorded values of dutiable goods and in part from the recorded values of free goods. In 1930-31 they amounted to about 3 per cent. of the value of other merchandise imports. An adjustment of 3 per cent. of the value of dutiable imports has therefore been made.

*Item 27.*—Total freight charges on imports were estimated by applying actual freight rates to quantities imported, in the case of "bulk" imports; and by applying an estimated rate per ton to the remaining tonnage of goods discharged from overseas. The estimated rate per ton on "berth" imports was deduced from the actual average rate per ton earned on inward and outward cargoes in 1927 and 1928 by vessels carrying

over one million tons of goods between Australia and Europe. (*Report of the Overseas Shipping Conference, 1929*). By calculating the average freight rate per ton on "berth" exports, from actual freight quotations, and estimating the comparative tonnage of inward and outward "berth" cargoes, it was possible to break down the weighted average rate per ton, as given in the *Report*, into its two component rates. The percentage of freight charges, so estimated, on the f.o.b. values of all merchandise imports in 1927-28 was 10.6; in 1928-29, 11.3; in 1929-30, 13.7; in 1930-31, 14.6; in 1931-32, 17.2; and in 1932-33, 17.1 per cent. The rise in the percentage has been due to the much more rapid fall in import prices than in freight rates. For insurance and numerous small charges not included in the recorded values a further adjustment of  $1\frac{1}{2}$  per cent. of the f.o.b. values of merchandise imports was made. The excess of the total charges so estimated, over the 10 per cent. already allowed, is the final adjustment required.

*Item 28.*—Cinematograph films are recorded at official valuations which bear little relation to the sums paid as rentals and purchase price. The total amounts payable overseas have been roughly estimated from data collected by the Royal Commission on the *Moving Picture Industry*, and from information obtained privately. The excess of these amounts over the recorded values of imports is the adjustment required.

*Item 30 (a) and (b).*—The amounts stated are those actually paid in sterling during the financial year, on Commonwealth liabilities only. In 1931-32 and 1932-33 the amount paid in interest on Commonwealth Government long-term debt was reduced by £3,919,774, payment of which was postponed under the Hoover Moratorium on war debts and reparations. Allowance has also been made for the sterling premium on dollar payments during 1931-32 and 1932-33. The interest obligation on long and short term securities can be shown separately only on the basis of interest payable at 30th June, in each year, viz. :—

			Long term		Short term
			£000 stg.		£000 stg.
At 30th June, 1929	..	..	8,018	..	..
At 30th June, 1930	..	..	8,416	..	11
At 30th June, 1931	..	..	8,320	..	303
At 30th June, 1932	..	..	4,396*	..	376
At 30th June, 1933	..	..	4,378*	..	251

(c).—From Commonwealth Budgets.

(d).—The figures stated for the first four years are the averages of the amounts payable at the beginning and the end of each financial year. The figures for 1932-33 are rather more exact. Allowance has been made for the sterling premium on dollar payments during 1931-32 and 1932-33, at the appropriate rates.

(e).—Interest actually accrued during the year.

(f).—Interest on overdrafts has been calculated at 5 per cent., and lower rates have been allowed on net credit balances.

*Item 31.*—Partly estimated, but in the main a compilation. Allowance has been made for the sterling premium on dollar payments during 1931-32 and 1932-33.

*Item 32.*—Estimated at 6 per cent. in the first three years, at 5 per cent. in 1931-32, and  $4\frac{1}{2}$  per cent. in 1932-33, on the averages of the amounts outstanding at the beginning and end of each year.

*Item 33.*—This item is largely conjectural. Interest has been allowed at 5 per cent. in the first two years, at 4 per cent. in 1930-31, and at 3 per cent. in 1931-32 and 1932-33, on a capital value in Australian currency of £175,000,000.

*Item 34.*—Interest earned at estimated rates on the bonds and fixed deposits included in item 71.

*Item 35.*—From Commonwealth Budgets.

\* Exclusive of sterling premium on amounts payable in dollars in New York.

*Item 36.*—Excess of receipts over expenditure in Australia, as returned by the companies.

*Item 37.*—Estimated in detail from the numbers of “Australian residents departing temporarily” to various groups of countries in each year. The average length of stay and average expenditure per head assumed, including fares, differ considerably for the various classes and destinations.

*Item 38.*—Estimated at varying amounts per head, allowing for fares, for “Australian residents departing permanently” to various groups of countries.

*Item 39.*—See item 20.

*Item 40.*—From Commonwealth Budgets.

*Item 41.*—Includes upkeep of Australia House and Agents-General, and representation at conferences, &c.

*Item 42.*—Estimated by Department of Defence; does not include value of goods imported.

*Items 43 to 45.*—From Commonwealth Budgets.

*Item 46.*—From Commonwealth Budgets (including estimated flotation expenses of the May conversion loan of £11,400,000).

*Item 47.*—Includes expenditure in territories outside Australia, contributions to oversea institutions and scientific bodies, &c.

**5. Notes on Capital Items.**—The capital movements stated for each year in the Balance of Payments are based on the corresponding items in the Balance of International Indebtedness. In the latter statement the individual liabilities and assets have been expressed in the currencies in which they are repayable. The increases or decreases from year to year, however, have been converted where necessary into English sterling at the average rates of exchange ruling during the year in question.

*Items 48 and 65.*—Particulars of long-term and short-term securities are published in the *Finance Bulletins* and the Commonwealth Budgets. *Sub-items 49 (a) and (d)* have been converted into sterling at the par rate of exchange, the formal error thus introduced being regarded as sufficiently offset by the fall in the dollar market value of the securities repurchased or cancelled. *Sub-item 48 (d)* has been adjusted to allow for the debit of £309,000 arising from the discount and bonus on conversion of the £12,360,000 loan in October, 1932. Particulars of bank advances and balances have been supplied by the Commonwealth and State Treasuries.

*Items 49 and 66.*—Partly estimated, but in the main a compilation.

*Items 50 and 67.*—Based on confidential information received.

*Items 51 and 68.*—Data from the quarterly banking returns. The figures stated are averages for the quarters ending in June.

*Items 52 and 69.*—From details supplied by the companies. The returns are not complete.

*Items 53 and 70.*—The amount of £175,000,000 has been chosen after consideration of a number of estimates, none of which is very firmly based. Little information on this item has so far become available.

*Items 54 and 71.*—The amounts stated consist of short-dated Commonwealth bonds (data from Commonwealth Treasury) and current and fixed deposits with the banks (data from confidential returns furnished by individual banks). The figures are possibly slightly understated.

*Items 55 and 72.*—From Commonwealth Budgets. Includes amounts owing by the British Phosphate Commissioners, White Star Line, and “other administrations”.

*Items 56 and 73.*—Data from *Statistical Register of Western Australia* and *Annual Reports of the National Debt Commission*.

*Items 57 and 74.*—Based on confidential information received.



*Items 58 and 75.*—Estimated from shareholders' funds, and average assets and liabilities as stated in the Australian and New Zealand quarterly banking returns. The figures stated are averages for the quarters ending in June. (For methods of estimation, see articles on "Australian Monetary Policy," by K. S. Isles and Roland Wilson, *Economic Record*, Nos. 12, 13 and 15.)

*Items 59 and 76.*—Data from New Zealand *Official Year Books*.

*Items 60 and 77.*—Data from New Zealand *Official Year Books*.

*Items 61 and 78.*—There is much evidence to suggest that Australian securities domiciled overseas have been repurchased by Australian residents, particularly while Australian Government stocks were very low in price overseas. No estimate of the amounts involved, in excess of those already included, has been made.

*Items 62 and 79.*—During the more acute stages of the depression it was common knowledge that capital was being moved out of Australia, for various reasons, even while the exchange was heavily depreciated. No estimate of the amounts involved can be made.

6. *Short-cut Estimation.*—The foregoing tabular statements give us as clear a picture of Australia's international financial dealings over the last five financial years as the data available permit. It will be readily understood by anyone who has taken the trouble to follow out the estimation in detail, that crude inferences from the gross recorded values of imports and exports are scarcely adequate for an intelligent appraisal of the problems on which the balance of payments has a bearing.

The detailed statements presented above, however, relate necessarily to the past; and for the purposes of practical policy it is often necessary to make tentative estimates of results in the current year. In order to facilitate the making of such estimates, the following summary of current items is included :—

Current Movements of Goods, Services, and Gold Production.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34. Approx.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
Exports of merchandise and silver ..	138,646	98,255	76,628	75,467	78,814	
Current gold production .. ..	1,871	1,873	2,156	3,609	4,660	(5,400)
<b>Total credits from above items</b>	<b>140,517</b>	<b>100,128</b>	<b>78,784</b>	<b>79,076</b>	<b>83,474</b>	
Imports of merchandise and silver ..	143,300	130,787	60,586	44,059	56,847	
Interest on central and local government debt .. ..	28,811	30,193	29,731	27,243	26,533	(24,600)
<b>Total debits from above items</b>	<b>172,111</b>	<b>160,980</b>	<b>90,317</b>	<b>71,302</b>	<b>83,380</b>	
Deficiency (-) or Surplus (+) on above items .. ..	-31,594	-60,852	-11,533	+ 7,774	+ 94	
Deficiency (-) or Surplus (+) on all other current items .. ..	-10,067	-10,764	- 4,093	- 1,414	- 3,884	(-5,500)
<b>Deficiency (-) or Surplus (+) on all current items .. ..</b>	<b>-41,661</b>	<b>-71,616</b>	<b>-15,626</b>	<b>+ 6,360</b>	<b>- 3,790</b>	

Estimation of the prospective balance on current account in 1933-34 with the aid of the above table involves the making of only five individual estimates.

The deficiency or surplus on "all other current items" can be estimated roughly from the figures for 1932-33, making allowance for known tendencies. At the time of writing\* a deficiency of £ stg. 5.5 millions appears probable. This figure allows for an increase of  $\frac{1}{2}$  per cent. in the return on oversea capital privately invested in Australia, and assumes the maintenance of the present rate of exchange.

Interest on central and local government debt may be estimated much more closely, though the possibility of unexpected alterations in the sterling-dollar rate of exchange must not be overlooked. Taking the amount of interest payable as at 30th June, 1933, and making allowance for savings due to completed and prospective conversions subsequent to that date, the total for the year may be put at approximately £ stg. 24.6 millions.

The prospective sterling value of gold production in 1933-34 is much less easy to estimate. Production has averaged 71,000 fine ounces monthly in the past three months, at an average sterling price of about £6 7s. 2d. If the sterling price remains somewhere about its present level of £6 10s. od. production in the full year should reach a value of at least £ stg. 5.4 millions.

Estimates of the prospective value of imports and exports of merchandise and silver for the full year are much more problematic. The more important materials for such estimates are to be sought in the monthly returns of oversea trade, the prospects of "the season," the levels of import and export prices, and the general state of business both at home and abroad. Special factors will also be present on occasion. Since the data on which these two estimates must be based are constantly changing, no figures need be suggested here.

It must not be overlooked that the table above refers only to the "current" items in the balance of payments. Monetary movements of gold and capital movements must also be considered to complete the picture.

Monetary movements of gold, i.e., net exports in excess of production, are not likely to be appreciable during the current financial year.

Movements of long-term private capital are more likely to be inwards than outwards, though in what volume it is impossible to say. The direction of movement of short-term trade and speculative moneys is less predictable. It should be noted, however, that over £A 10 millions of trade moneys (see item 71) were being held temporarily in Australia on oversea account on 30th June, 1933. The possibility of the repatriation of these moneys is a factor to be reckoned with. As for capital transactions by governments and local bodies, new borrowings overseas in the current year are not likely to be appreciable. On the other hand, sinking fund requirements will probably be an important item. In 1932-33 about £ stg. 3.7 millions were devoted either to the building up of sinking fund balances overseas or to the reduction of overseas debt.

## CHAPTER XIV.

### PUBLIC FINANCE.

(See pp. 380, 438, 445, 450.)

#### THE FINANCIAL CRISIS.

1. **General.**—It is not within the functions of the Official Year Book to attempt a full record of the financial and economic crisis which began to develop in Australia towards the end of 1929, and space does not permit of a presentation of the whole of the statistical and financial data relevant to the subject. The principal documents relating to the crisis, however, up to November, 1932, have been conveniently put together, with some brief comment, by Professors E. G. Shann and D. B. Copland in the three compact volumes entitled *The Crisis in Australian Finance*, *The Battle of the Plans*, and *The Australian Price Structure*, 1932. These may be supplemented by the official reports of the Premiers' Conferences, especially those dealing with the Conferences of 25th May

\* 31st October, 1933.

to 11th June, 1931, (P.P. No. 236), 28th January to 5th February, 1932 (P.P. No. 12), 14th to 21st April, 1932 (C.3847), 28th June to 8th July, 1932 (F.1969), and 8th to 14th June, 1933 (F.2184). Particular reference may be made to the Treasury Officers' Report on the Budgets of 1931-32 and 1932-33 (F.1969); and to the Report of the Committee appointed to make a "Preliminary Survey of the Economic Problem" (C.3847). Discussions of the economic and financial issues will be found in the "Economic Survey of Australia" published in the *Annals of the American Academy of Political and Social Science* (Philadelphia) for November, 1931; in *Australia in the World Depression*, by Dr. E. R. Walker (1933); in the *Circulars of the Bank of New South Wales* (Sydney); in Nos. 11 to 17 of the *Economic Record* (Melbourne), and in its Special Supplement (October, 1932) containing the "Papers on World Economic Influences" read before Section G of the A.N.Z.A.A.S. (Sydney Congress, August, 1932).

2. Elements of the Situation.—The elements of the situation before the depression began, were :—

- (1) A national income of about £100 per head in 1928-29.
- (2) Oversea interest obligations, fixed for the most part in sterling, of about £5 per head.
- (3) Imports of about £27 per head in 1926-27, falling to £23 per head in 1928-29.
- (4) Exports of commodities, which for some years had failed to pay for imports, amounting in 1928-29 to £21 per head.
- (5) A standing net debit of interest obligations and balance of visible trade, which had been met by oversea long-term loans averaging about £5 per head for some years, helped by some investment of private capital from overseas.
- (6) Deficits in Government finance for the Commonwealth and all States, which for 1929-30 totalled about £1 15s. per head.

On this situation impinged :—

- (1) A world fall in commodity prices, with consequent general depression and increase in the burden of fixed money claims which were estimated for Australia at about £20 per head in 1928-29.
- (2) A rapid fall in Australian export prices, which, in gold, had declined by the end of 1931 to about 32 per cent. of the 1927-28 level, and to 58 per cent. even in Australian currency; while, at the same time, interest obligations remained fixed in sterling for the most part, and import prices fell very much less than export prices.
- (3) A total cessation of oversea long-term loans, which had in recent years roughly balanced interest obligations overseas.
- (4) Government deficits, which had been about £1 15s. per head in 1929-30 rose to over £4 per head in 1930-31, and threatened to be £7 per head in 1931-32, with consequent further loss of business confidence and intensification of the depression.

3. Attempts to meet the Situation.—A brief diary of the attempts to meet this situation may be set out as follows :—

*April, 1930.*—Special customs surcharges of 50 per cent. of the amount of duty already imposed were placed on certain items of import; and the importation of 78 items was prohibited by proclamation.

*July-August.*—Sir Otto Niemeyer, representing the Bank of England, visited Australia at the invitation of the Commonwealth Government, and made a statement on severely deflationary lines to a Conference of Premiers in Melbourne (see *The Crisis in Australian Finance*, p. 18.) The Premiers resolved to balance budgets in 1930-31.

22nd January, 1931.—The Commonwealth Court of Arbitration after a protracted hearing made a comprehensive survey of the economic position (see *The Crisis*, pp. 102-145), and awarded a 10 per cent. reduction in all railway wages which were the subject of the case, operative from the 1st February, 1931. This judgment was followed by others, making the same reduction in practically all wages and salaries which were determined by Federal award. This reduction of 10 per cent. was in addition to the "automatic" adjustment to falling prices, and made the total reduction over 20 per cent. on the wage rates of 1929. Wages under State jurisdiction were gradually brought into line, except in New South Wales where no adjustment was made in State awards for some time.

January to February.—*Premiers' Conference, Canberra and Melbourne.*—A committee of Treasury officers presented a report analysing the financial and economic position. The report preserved much of the deflationary tone of Sir Otto Niemeier's statement, and commented adversely on the high exchange rate. Curtailment of Government expenditure was strongly urged, but no definite reductions were proposed. This report was signed by four of the State Under-Treasurers only.

Mr. Lang (Premier of New South Wales) proposed as an alternative the reduction of internal interest on Government bonds to 3 per cent., the cessation of oversea interest payments pending agreement for a similar reduction, and the substitution for the gold standard of "currency based on the wealth of Australia".

The Conference rejected Mr. Lang's motion and resolved to aim at budget equilibrium in three years, reducing salaries and wages on a cost of living basis, taxing interest on Government bonds at the source and putting on the banks the responsibility of reducing interest rates.

January.—*The Unpegging of the Exchange.*—Australian exchange with sterling had been held by the banks at 8½ per cent. discount since 9th October, 1930. On 5th January, 1931, on the initiative of the Bank of New South Wales, the rate was allowed to move up until it reached 30 per cent. on 29th January, 1931, and it was held at that figure notwithstanding some competition at higher rates, by "outside" dealers.

2nd April.—Letter from the Commonwealth Bank to the Chairman of the Loan Council, stating that it was unable to finance Governments beyond the outstanding £25,000,000 in London, and a limit of £25,000,000 in Australia. This limit in Australia was bound to be, and was, in fact, reached within three months.

25th May to 11th June.—*Premiers' Conference, Melbourne.*—The Conference had before it a report of a Committee of economists and Treasury officers, of which Professor D. B. Copland was Chairman. This report proposed a definite scheme of reduction of expenditure of all kinds, including wages, salaries, pensions, and interest. The reduction aimed at was from 20 to 25 per cent. below the 1928-29 level, based on the actual reduction in wage rates in Federal awards of something over 20 per cent. The aim of the proposals was to reduce total Government deficits in 1931-32 from a prospective £40,000,000, to some figure not much above £10,000,000. This report, which is printed in full at the end of this section, formed the basis of the "Premiers' Plan," adopted on the 10th June, 1931.

19th June.—*Gold Position.*—The minimum proportion of gold to be held against notes was reduced from 25 per cent. to 15 per cent., with provision for gradual restoration over a term not exceeding five years to 25 per cent. This amendment of the Commonwealth Bank Act was put through by general consent to permit further shipments of gold to meet short-term debt in London.

26th June.—*Reduction of Bank Deposit and Advance Rates.*—The Commonwealth Bank and the trading banks reduced by 1 per cent. the rates on new fixed deposits or renewals.

1st July.—The Commonwealth Bank reduced rates for advances by 1 per cent. The other trading banks by successive small steps fell into line.

The Commonwealth and State Savings Banks reduced interest rates by 1 per cent., except in Victoria where successive reductions of one-half, one quarter, and again one-quarter of 1 per cent. were made by the State Savings Bank.

July-August.—*Conversion Loan*.—A conversion loan was launched to reduce the rate of interest on all internal Government debt by approximately 22½ per cent.

The results of the conversion plan will be best understood by consideration of the following figures:—

	£
Total Internal public debt at 31st July, 1931 .. ..	557,998,904
Conversion applications notified .. .. .	510,331,153
Dissents notified .. .. .	16,655,769
Conversion effected automatically (in absence of notification of either conversion or dissent) .. .. .	31,011,982
	557,998,904

The amount held by dissentients was thus a little less than 3 per cent. of the total outstanding public debts.

The annual savings in interest to all the Governments for a full year in consequence of the conversions effected were calculated to be about £6,500,000, but some part of this relief was to be passed on to settlers and other debtors to the State Governments.

31st July.—A reduction in the rate of interest on Treasury Bills from 6 per cent. to 4 per cent. was announced.

10th to 14th August, and 1st to 12th September.—*Premiers' Conference, Melbourne*. The several Governments reported their attempts to adjust their budgets to the "Premiers' Plan." After some allowance had been made for unforeseen contingencies, the new budgets appeared on the whole to be in fair conformity with the "Plan," though for some of the State Governments there was an appreciable gap. Measures were agreed upon for applying compulsion to the small amount of Debt which had not been converted, and provision was made for the redemption from the National Debt Sinking Fund of securities held by persons in necessitous circumstances.

21st September.—Great Britain ceased payment in gold, and sterling depreciated over 20 per cent. in terms thereof, thus making a corresponding reduction in the real burden of interest payments by Australian Governments, which are for the most part fixed in sterling. Australian exchange was kept for the time at the old discount of 30 per cent. with sterling, so that no direct relief to Australian budgets ensued.

30th October.—The Commonwealth Government made provision for the payment of a bounty of 4½d. per bushel on wheat produced in the 1931-32 season.

27th November.—Further reduction in bank deposit rates of one-half and one-quarter of one per cent. on short and long-term deposits respectively.

3rd December.—*Exchange*.—Commonwealth Bank Board resolved to take responsibility for the regulation of sterling exchange and to announce rates for the coming week every Friday. The rate was fixed at £125 for £100 sterling, in place of £130, which had been the official bank rate since 29th January. It may be noted that sterling in the preceding week had depreciated from about 20 per cent. discount on gold to about 30 per cent. For some weeks the banks had been rationing their purchases of exchange, with the result that the "open market" rate had fallen considerably below the "carded" rates.

*January, 1932.*—Letter from the Commonwealth Bank to the Chairman of the Loan Council calling attention to the growth of the floating debt, and suggesting that "national finance" might be refused.

*28th January to 5th February.*—*Premiers' Conference, Melbourne.*—A serious drift in State finances was revealed. After receiving assurances that further economies would be sought, the Commonwealth Bank agreed to provide further assistance for the small States. During the meetings, New South Wales announced its default on interest payments due in London, New York and Australia. The payments were met, after a short delay, by the Commonwealth Government.

*February.*—A beginning was made in the revision of the tariff and the removal of prohibitions on imports.

*8th March.*—Further reductions in bank deposit rates of one-half, one-quarter and one-quarter of one per cent. on 3, 6 and 12 months' deposits, respectively.

*12th March.*—The Financial Agreements (Commonwealth Liability) Act resolved all doubts as to the liability of the Commonwealth for debts taken over in pursuance of the Financial Agreement.

*March to May.*—The Financial Agreements Enforcement legislation was enacted, giving the Commonwealth drastic powers to attach State revenues and other moneys in the event of failure by a State to pay to the Commonwealth moneys due under the Financial Agreement. The High Court decided in favour of the Commonwealth on a writ for recovery of interest paid on behalf of New South Wales. The New South Wales Government then contested the validity of the Enforcement Acts, which were upheld by the High Court, leave to appeal being refused.

*13th April.*—A Committee of Experts appointed by the Commonwealth Government to make a "Preliminary Survey of the Economic Problem" issued its report, recommending the restoration of economic balance by a combination of reduced costs and a high exchange rate, the former to be secured in part by the general application by State wage-fixing authorities of the 10 per cent. "cut" in real wages. The chief measures of more immediate alleviation recommended were (i) systematic revision of the customs tariff, (ii) construction of public works when the reductions in costs of construction made it possible for such works to earn interest, (iii) advances on debentures to large-scale enterprises for which three-quarters of the needed capital had been privately subscribed, and (iv) the settlement of married recipients of sustenance as cottagers on established farms.

*14th to 21st April.*—*Premiers' Conference, Melbourne.*—It was decided to raise a loan of £2,400,000 for expenditure on unemployment relief works.

*May.*—The trade union unemployment percentage reached the peak of 30 per cent. Mr. Lang was dismissed by the Governor of New South Wales, and the Victorian Labour Government was defeated at the elections. A widespread agitation for a higher exchange rate commenced, and lasted for some months.

*11th June.*—The State Labour Party was defeated in the New South Wales elections, while in Queensland the Labour Party was victorious.

*16th and 17th June.*—The New South Wales Industrial Commission was reconstituted. The Commonwealth Court of Arbitration refused an application for restoration of the special 10 per cent. reduction in wages.

*21st June.*—The Commonwealth Bank Act was amended to allow part of the note reserve to be held in English sterling. Subsequently, £G10,000,528 of gold was shipped overseas from the gold reserve of the Australian Notes Fund.

*May-June.*—Further reductions in bank deposit rates of one-quarter and one-half of one per cent. on 12 and 24 months' deposits, respectively.

*30th June.*—*Balance of Payments.*—The balance on current account, excluding the movement of monetary gold, was estimated to be in Australia's favour by approximately £6,360,000 sterling in 1931-32, as against a debit balance in 1930-31 of approximately £15,626,000 sterling. (See Appendix, Chapter VII.—Trade, p. 873.)

28th June to 8th July.—*Premiers' Conference, Canberra and Sydney.*—The Conference unanimously affirmed its adherence to the "Premiers' Plan" of 1931. The estimated deficits for 1931–32 were reported to the Conference; and, with the notable exceptions of New South Wales and Queensland, they disclosed a satisfactory conformity with the "planned" deficits. The Conference agreed to reduce the total deficits in 1932–33 to £9,000,000 (inclusive of £6.45 millions for sinking funds); and arranged for a three-year unemployment relief works plan involving the ultimate expenditure of £15,000,000. Of this amount, £7,000,000 was to be spent in 1932–33, in addition to the ordinary works programme of £6,000,000.

1st July.—The Commonwealth Bank reduced its rate for advances by a further one-half of one per cent., bringing the rate to 5 per cent. The average reduction by the trading banks, since 1st October, 1931, was stated to be 1 per cent. Further reductions were anticipated by prominent bankers.

21st July to 19th August.—*Imperial Economic Conference at Ottawa.*

26th August.—The New South Wales Industrial Commission reduced the basic wage for adult males from £4 2s. 6d. to £3 10s., and for adult females from £2 4s. 6d. to £1 18s.

1st September.—The Commonwealth Budget provided *inter alia* for a further reduction of pensions and salaries, decreased customs duties, the final removal of import prohibitions, exemptions from Sales Tax and primage, and suspension of the gold bounty, which had been introduced on 1st January, 1931.

September to November.—Wool prices showed some improvement; share prices advanced substantially; the value of imports and Commonwealth customs revenues increased steadily. Early in October all the 4 per cent. Commonwealth bonds reached par, after allowing for accrued interest.

4th October.—A conversion loan was issued in London at  $3\frac{1}{2}$  per cent., issue price £97 $\frac{1}{2}$ , maturing 1936–37, to replace £12,360,000 of  $5\frac{1}{2}$  per cent. N.S.W. stock maturing in October, 1932.

14th October.—Revision of the Customs Tariff to validate the Ottawa Agreement. The margin of preference under the British Preferential Tariff was considerably widened, mainly by means of increased duties on a wide range of foreign manufactures.

24th to 29th October.—*Premiers' Conference, Melbourne.*—It was decided to place on the Australian market a loan of £8,000,000 at  $3\frac{1}{2}$  per cent., for Unemployment Relief and the funding of Treasury Bills. A reduction in the rate of interest on Treasury Bills from 4 per cent. to  $3\frac{1}{2}$  per cent. was announced.

1st November.—Further reductions in bank deposit rates of one-quarter of one per cent. for all terms, bringing the rates down to  $2\frac{1}{2}$ ,  $2\frac{3}{4}$ , 3 and  $3\frac{1}{4}$  per cent. on 3, 6, 12 and 24 months' deposits respectively.

5th December.—In view of the improved revenue position, the Commonwealth Government made substantial reductions in land and income (property) taxes, further exemptions from sales tax, increased the payments to certain Invalid and Old-age pensioners, and provided from revenue £2,000,000 for assistance to wheat-growers and £250,000 for assistance to other primary producers.

January, 1933.—Considerable improvement in the unemployment situation was shown in the trade union percentages for the last quarter of 1932. This improvement has continued.

20th January.—A reduction in the rate of interest on Treasury Bills from  $3\frac{1}{2}$  per cent. to  $3\frac{1}{4}$  per cent. was announced.

4th February.—The Loan Council agreed with the Commonwealth Bank that future requirements for loan programmes should be raised on the open market.

7th February.—Further reductions in bank deposit rates of one-quarter of 1 per cent. for all terms, bringing the rates down to 2,  $2\frac{1}{2}$ ,  $2\frac{3}{4}$ , and 3 per cent. on 3, 6, 12 and 24 months' deposits respectively.

17th February.—Further reduction in the Treasury Bill rate from  $3\frac{1}{4}$  per cent. to  $2\frac{1}{2}$  per cent.

23rd February.—A conversion loan was issued in London at 4 per cent., issue price par, maturing 1955-70, to replace £9,621,000 of 4 per cent. stock maturing in July, 1933.

30th May.—Appointment of Commonwealth Grants Commission to inquire into matters relating to grants of financial assistance to the States.

A conversion loan was issued in London at  $3\frac{1}{2}$  per cent., issue price £99, maturing in 1937-38, to replace £11,400,000 of  $6\frac{1}{2}$  per cent. stock with optional rights of redemption.

31st May.—Lists closed for internal loan of £5,000,000 for State public works, issued at  $3\frac{3}{4}$  per cent. at par, maturing in 1942, with subscriptions amounting to £8.4 millions.

1st June.—A further reduction in the Treasury Bill rate from  $2\frac{1}{4}$  per cent. to  $2\frac{1}{2}$  per cent. was announced.

8th to 14th June.—Premiers' Conference, Melbourne.—By arrangement with the Loan Council, the Commonwealth Bank agreed to finance revenue deficits in 1933-34 by short-term loans to the amount of £8.5 millions, subject to reduction to the extent of any relief obtained by the States from conversion of oversea loans.

12th June to 27th July.—World Monetary and Economic Conference in London.

30th June.—The Commonwealth Court of Arbitration ordered the restitution of the 10 per cent. reduction in real wages in the Glass Industry; subsequently extending the restitution to the Paper and Pulp, Jam and Fruit Preserving, and certain other industries.

13th July.—A conversion loan was issued in London at 4 per cent., issue price £99, maturing in 1943-48, to replace £17,221,000 of 6 per cent. stock with optional rights of redemption.

14th September.—A conversion loan was issued in London at  $3\frac{3}{4}$  per cent., issue price £98, maturing in 1948-53, to replace £20,951,000 of 6 per cent. and  $5\frac{1}{4}$  per cent. stock with optional rights of redemption.

4th October.—The Commonwealth Budget provided *inter alia* for substantial remissions of direct and indirect taxation; including further exemptions from Sales Tax and reduction of the rate of tax from 6 to 5 per cent., reduction of special tax on income from property from 10 to 5 per cent., reductions in the income taxation on Life Assurance and other companies, and partial restoration of Financial Emergency reductions in Invalid, Old-age and War Pensions, Public Service salaries and contributions to the Public Service Superannuation Fund. The total relief of taxation was estimated to be at the rate of £7.5 millions annually. At the same time the Government signified its intention of giving effect to that part of the report of the Tariff Board on the protective incidence of primage and exchange which applied to protected goods entitled to admission under the British Preferential Tariff.

16th November.—An internal loan of £10,000,000 was issued at  $3\frac{1}{2}$  per cent., issue price £99, maturing in 1943, half for State public works and half for the purpose of retiring Treasury Bills.

30th November.—The price of wool, which had been advancing rapidly for some months, reached nearly 15d. per lb. (greasy merino, standard average). Wheat prices continued to fluctuate at very low levels. Export prices as a whole, in Australian currency, had recovered to 72 per cent. of their 1927-28 level.

5th December.—A conversion loan was issued in London at  $3\frac{3}{4}$  per cent., issue price £99, maturing in 1946-49, to replace £16,647,000 of  $5\frac{1}{2}$  per cent. and 5 per cent. stock with optional rights of redemption.

The Commonwealth Government provided £3,000,000 for assistance to wheat-growers to be financed partly from a temporary sales tax on flour of £4 5s. a ton, and in part from other sources. The special tax on incomes from property was raised from 5 to 6 per cent. and the customs duty on imported tobacco raised by 6d. a lb.



4. **Effects on Government Finance.**—The aggregate deficit for the year 1930-31 of the Commonwealth (£10,760,000) and the States (£14,610,000) amounted to £25,370,000.

The aggregate deficit originally estimated for 1931-32 was £41,080,000. As a result of the conference proposals and subsequent revisions, this was reduced to £12,660,000. The aggregate deficit ultimately realized, however, was £19,490,000, though the Commonwealth itself had a surplus of £1,314,000.

For 1932-33 the States budgeted for a deficit of £8,766,000 and the Commonwealth for a small surplus. At the end of the year the actual deficits of the States amounted to £8,609,000. The Commonwealth's receipts exceeded the ordinary expenditure by £3,545,000, which was appropriated for the payment of Invalid and Old-age Pensions in 1933-34.

The results outlined above are shown in greater detail in the following table:—

DEFICITS BEFORE AND AFTER THE "PLAN", COMMONWEALTH AND STATES.  
(£'000.)

States, etc.	1930-31.	1931-32.		1932-33.	1933-34.	
	Deficit.	Estimated Deficit.		Deficit.	Estimated Deficit	
	Realized for Year.	Prior to Melbourne Conference.	After Conference Adjustments and later Revisions.	Realized for Year. (a)		
New South Wales (b)	7,850	11,510	5,910	(e) 14,228	4,271	3,790
Victoria ..	2,450	3,060	1,610	1,608	856	700
Queensland ..	840	1,630	760	2,075	1,554	1,848
South Australia ..	1,810	2,400	1,500	1,063	1,009	933
Western Australia ..	1,420	1,860	1,560	1,558	864	759
Tasmania ..	240	220	170	272	55	51
Six States ..	14,610	20,680	11,510	20,804	8,609	8,081
Commonwealth ..	10,760	20,400	1,150	(+) 1,314	(+) 3,545	1,176
Grand Total ..	(c) 25,370	41,080	(d) 12,660	19,490	5,064	9,257

(a) Preliminary figures. (b) Exclusive of Metropolitan Board of Water Supply and Sewerage, (c) Excluding interest, &c., £3,834,149 paid by the Commonwealth on behalf of New South Wales and not recovered at 30th June, 1931. Of this amount £1,672,722 would normally have been brought to account as expenditure by New South Wales during 1930-31 and the remainder in 1931-32. (d) Originally £14,650,000. (e) Excludes surplus of £890,000 Main Roads Board, and includes £1,673,000 Interest and Exchange properly attributable to 1930-31.

5. **Present Position of Government Finance.**—The following summaries have been compiled from information published in the monthly statements prepared by the Commonwealth and State Treasuries.

The aggregate deficits of all States amounted to £5.17 millions for the quarter ended 30th September, 1932. The Commonwealth surplus of £2.62 millions reduced the aggregate deficit to £2.55 millions, which represents a very marked improvement on the results for the corresponding quarter of the previous year, when the deficits aggregated £13.07 millions. Revenue increased by £6.4 millions, and expenditure decreased by £4.1 millions, giving a net improvement of £10.5 millions. For the quarter ended 30th September, 1933, the improvement was even more marked. The deficit of Commonwealth and States combined was £1,756,000—Receipts were £904,000 less, but expenditure fell by £1,702,000—an improvement on 1932 of £800,000 and on 1931 of no less than £11,315,000.

## COMMONWEALTH AND STATES FINANCES.—SUMMARY.

Quarter ended 30th September.				Receipts.	Expenditure.	Deficit.
				£1,000.	£1,000.	£1,000.
1931	..	..	..	32,504	45,575	13,071
1932	..	..	..	38,944	41,498	2,554
1933	..	..	..	38,040	39,796	1,756

Comparing results for the September quarter of the past three years, taxation receipts increased by £4.06 millions in 1932, but fell in 1933 by £1,672,000, and the expenditure on administrative and social services was reduced by £0.76 million in 1932 and by a further £1.63 millions in 1933.

In regard to Business Undertakings, the trading results, excluding provision for interest, etc., can be summarized as follow :—

## BUSINESS UNDERTAKINGS—COMMONWEALTH AND STATES.—SUMMARY.

Quarter ended 30th September.				Receipts.	Expenditure.(a)	Excess Receipts.
				£1,000.	£1,000.	£1,000.
1931	..	..	..	13,789	10,395	3,394
1932	..	..	..	14,129	10,090	4,039
1933	..	..	..	14,208	9,833	4,375

(a) Excludes Interest, etc., charges.

6. **The Adopted Plan.**—The full text of the Report prepared by the representatives of the various Australian Governments in connexion with the national financial position is as follows :—

## CONFERENCE REPORT.

The Governments of Australia have met in Conference to consider what measures are possible to restore solvency and avoid default. The national income was £650,000,000 in 1927-28. It fell to £564,000,000 in 1929-30, and a further fall to £450,000,000 in 1931-32 is estimated.

This has reacted on Government finance.

The total deficit of the seven Australian Governments will be £31,000,000 for the present financial year. The Governments are now going behind at the rate of £40,000,000 a year, in spite of reduction of expenditure amounting to £11,000,000 per annum since 1929-30. The deficits have been met hitherto by bank overdraft. The Commonwealth Bank has notified the Governments that the limit to that process has been reached. Early in July, Governments will have insufficient means to meet their obligations. Unless the drift be stopped, Public Service salaries and wages, pensions and interest could not be paid in full. Public default would be followed by a partial breakdown in public utilities such as railways, and in private industry and trade. Revenue would come toppling down, and even half-payment might become impossible. With this prospect, everything that can be got from Government economy, from taxation, and from reduction of interest, must be called on to bring the debit balance within manageable limits that can safely and practicably be covered for a time by borrowing.

## THE PLAN.

The Conference has, therefore, adopted a plan which combines all possible remedies in such a way that the burden falls as equally as possible on every one, and no considerable section of the people is left in a privileged position. This sharing of the burden is necessary to make the load more tolerable; it is still more necessary, because only on this condition will it be possible to get the combined effort required.

The plan has been adopted by the Conference as a whole, each part of which is accepted on the understanding that all the other parts are equally and simultaneously put into operation. It embraces the following measures:—

- (a) A reduction of 20 per cent. in all adjustable Government expenditure, as compared with the year ending 30th June, 1930, including all emoluments, wages, salaries, and pensions paid by the Governments, whether fixed by statute or otherwise, such reduction to be equitably effected;
- (b) Conversion of the internal debts of the Governments on the basis of a 22½ per cent. reduction of interest;
- (c) The securing of additional revenue by taxation, both Commonwealth and State;
- (d) A reduction of bank and Savings Bank rates of interest on deposits and advances;
- (e) Relief in respect of private mortgages.

These proposals require the greatest effort in economy and taxation which the Conference considers it safe to attempt. The effect will be still to have a gap of from £13,000,000 to £15,000,000 to be covered for a time by borrowing.

#### REDUCTION OF EXPENDITURE.

The plan provides for Government economy on the basis of an immediate cut, averaging 20 per cent. for all Government wages and salaries below the level of 1929-30. To this will be added all saving that can be made from a strict scrutiny into the necessity of every item of Government expenditure.

The same general principle is extended to all pensions provided out of Government funds—old-age and invalid pensions, war pensions, superannuation pensions, and the maternity allowance. Over the whole field of this expenditure, the cut will amount to 16 per cent. The result will be, for each Government, savings as shown in the following table:—

#### FURTHER REDUCTIONS IN EXPENDITURE BEYOND THOSE PROVIDED FOR IN THE PRESENT ESTIMATES FOR 1931-32.—ADMINISTRATION AND PENSIONS.

					£
Commonwealth .. .. .	..	..	..	..	6,050,000
New South Wales .. .. .	..	..	..	..	3,300,000
Victoria .. .. .	..	..	..	..	880,000
Queensland .. .. .	..	..	..	..	620,000
South Australia .. .. .	..	..	..	..	400,000
Western Australia .. .. .	..	..	..	..	560,000
Tasmania .. .. .	..	..	..	..	110,000
					11,920,000

The further savings to be made in accordance with the plan are, therefore, £11.92 millions for all Governments. The total reduction of expenditure (excluding Commonwealth pensions) compared with 1929-30 will be £21.4 millions.

#### TAXATION.

Taxation equally must make a maximum contribution. Ordinary direct taxation has nearly reached the limit in some States. The Commonwealth will raise an additional £1.5 millions by income tax, and what capacity for direct taxation remains will be left for a last reserve as the option of the several State Governments. The only possible substantial contribution must, therefore, be by taxes on consumption so designed as

to add as little as possible to the costs of industry. It has been agreed that the sales tax and primage should be increased to give £6.4 millions of additional revenue. By the agreed economies and taxation, the position estimated for 1931-32 will be improved by £20,000,000, exclusive of savings on interest and additional State taxation.

#### REDUCTION OF INTEREST.

The reduction in the rate of interest is of urgent importance, for two reasons :—

1. With the fall in prices since 1929, interest payments have become an intolerable load on all industry, and immediate relief is necessary for the restoration of industry and employment. Government budgets are subject to the same strain, because revenue falls with falling prices, and thus interest relatively becomes a heavier burden. A reduction of interest will substantially reduce the deficit which remains when economy and taxation have made their maximum contribution.

2. Income from interest, particularly from Government bonds and bank interest, has hitherto suffered little loss. A reduction of interest will ensure that it will contribute equitably to the common effort to restore solvency. Unless the contribution is made, it is not to be expected that the wage-earner and the pensioner will acquiesce in the very real hardships imposed on them by this plan.

The second of these objects could be obtained by taxation, but taxation would give no relief to industry and no stimulus to employment. The Conference has, therefore, resolved on an appeal to all bond-holders to accept a reduction of 22½ per cent. in the effective rate of interest. This is to be done by a conversion loan, and the new securities will be exempt from the present super-tax of 7½ per cent. and from any additional taxation imposed on income from interest, in order to spread as evenly as possible the sacrifices required to restore solvency.

Concurrently with the reduction of bond interest must go a reduction in private interest. This is mainly a matter for the banks, who are co-operating to that end. Reductions of interest are being arranged between the Commonwealth Bank, the trading banks, and the Savings Banks which will result in the rapid reduction in the interest on money required for trade and industry. This reduction of interest will be supplemented by legislation giving relief to mortgagors. This legislation forms part of the plan.

The lower rates of interest will greatly stimulate the general demand for credit, and the conference has the assurance of the Commonwealth Bank and the trading banks that, as a result of the operation of the plan, money will be readily available. With falling costs and ample supplies of credit, industry should then recover. This recovery will be stimulated by the maintenance of a free external exchange rate and the avoidance of any measures that will cause a sudden further fall in prices. A reduction of existing exchange rates will best be achieved on rising markets for Australian exports. If premature attempts are made to force the rates down earlier, they may bring about a further crisis by reducing export values once more.

#### SUMMARY.

The total effects of the plan on the budgets of 1931-32 may now be summarized. The total deficit as estimated for 1931-32 was £39,000,000. The extra economies agreed upon take £12,000,000 off this total. New Federal taxation embodied in the plan will contribute a net £7.5 millions, in addition to any increases which may be obtained by the States. The saving of interest by conversion will reduce the internal interest burden by £6.5 millions. As Governments will pass on this relief to their own borrowers—public bodies, public utilities, and private individuals—the net benefit to the budgets will be £5.5 millions. The combined effect will be a reduction of the deficit from £40,000,000 to £15,000,000. A further reduction of the deficit by £2,000,000 could be secured by levelling up the income tax in at least two States.

These very substantial reductions will go far to restore confidence both at home and abroad. This restoration of confidence, with the indirect effects of the fall in interest, may be expected to restore revenue, even to some extent in 1931-32, and substantially in the years following. A rise in world's price for our exports would accelerate the upward movement, and this rise may reasonably be expected within the next two years. With any improvement in industry, the expenditure on unemployment sustenance will decline, with further relief to budgets.

With this prospect, and confidence restored, there would be no difficulty in borrowing temporarily to meet the deficits as substantially reduced.

The deficit includes £10.6 millions additional charge on overseas interest and external payments on account of exchange. If the exchange rate falls, there will be a corresponding decline in the deficit. On the other hand, if the present exchange rate is maintained, its full effect in keeping up local prices and incomes will have a beneficial effect on Government revenues.

#### A UNITED EFFORT.

Before the details of the plan were settled, and in order to make it effective, the Leaders of the Opposition in the Commonwealth Parliament were invited to attend the Conference. After full discussion of the whole plan, the following resolution was passed:—

“The Conference, including the Leaders of the Opposition in the Federal Parliament, having most carefully considered the financial position of the Commonwealth and the States, and recognizing the national inability to meet existing Government charges, is unanimously of the opinion that to prevent national default in the immediate future, and a general failure to meet Government payments, all expenditure, including interest on Government securities and other interest, and expenditure upon governmental salaries and wages, pensions, and other social services must be substantially reduced.

These measures, drastic as they may appear, are the first essentials to the restoration of prosperity and the re-employment of our workless people.

The necessary sacrifice is due to national inability to pay, and it must, therefore, be shared by all.

The Conference has accordingly provided a conversion plan under which bond-holders may make their contribution to the general sacrifice by themselves accepting the lower rate of interest which the existing position makes unavoidable.

The Conference therefore appeals to all sections of the people to recognize the position, and, in the interests of the nation to accept the sacrifices which are involved.

A National Appeal Executive, consisting of the Prime Minister, the Leader of the Opposition, and the Chairman of the Commonwealth Bank Board, is appointed by this Conference to direct the conversion campaign.”

#### CONCLUSION.

1. The plan agreed upon is an indivisible whole and the carrying out of any one part is dependent upon the carrying out of all parts.

2. It involves sacrifices by every member of the community, and the Conference appeals to all sections of the people to recognize the position, and to accept these sacrifices as a national duty.

3. To the bond-holder the plan involves a reduction of interest by  $22\frac{1}{2}$  per cent. but it safeguards the capital of the investor.

4. To the Government employee the plan involves a reduction, which with reductions already effected represents an average of 20 per cent., but it makes his position, and future emoluments, much more secure.

5. To the war pensioner, the plan involves a reduction of 20 per cent. (in some cases less), but it removes the danger of any sudden stoppage, and provides security for future payments.

6. To the invalid and old age pensioner the plan involves a reduction in most cases of  $12\frac{1}{2}$  per cent., but it removes the danger of any sudden stoppage, and provides security for future payments.

7. To all of these a large part of the reduction is counterbalanced by the fall in prices, and in the cost of living.

8. To the unemployed, the plan provides for a restoration of employment, and in the meantime makes more secure the continuation of sustenance relief.

9. With the sacrifice distributed over the whole community in this manner, with the lead of Governments followed by all citizens, with the revival of business confidence and activity, a sure foundation will have been laid for the restoration of general prosperity in Australia.

#### EFFECT OF THE PLAN ON DEFICITS.

—	1929-30 Actual.	1930-31 Estimate.	1931-32.	
			Original Estimate.	After making the Agreed Adjustments.
	£ millions.	£ millions.	£ millions.	£ millions.
Commonwealth ..	1.50	13.40	20.40	4.38
New South Wales ..	5.57	10.48	11.51	5.41
Victoria .. ..	1.17	2.60	3.06	1.31
Queensland .. ..	.72	.74	1.63	.76
South Australia ..	1.63	2.20	2.40	1.50
Western Australia ..	.52	1.52	1.86	1.20
Tasmania .. ..	.02	.21	.22	.09
Total States ..	9.63	17.75	20.68	10.27
Total ..	11.13	31.15	41.08	14.65*

\* Further adjustments reduce this amount to £12.66 millions. See page 891.

#### FINAL RESOLUTION.

Just prior to concluding its business, the Conference unanimously passed the following resolution, on the motion of Mr. Hill (Premier of South Australia) :—

The representatives of each Government present at this Conference bind themselves to give effect promptly to the whole of the resolutions agreed to at this Conference.

## B. COMMONWEALTH FINANCE, 1932-33.

Particulars.	See page—	Amount.	Per Head of Population.
Consolidated Revenue Fund—(a)		£	£ s. d.
Revenue .. .. .	369	73,512,809	11 3 6
Expenditure .. .. .	369	(b)73,512,809	11 3 6
Loan Fund—			
Works Expenditure, 1932-33 .. .. .	389	Cr, 726,910	} 0 1 8
Unemployment Relief .. .. .	"	1,155,698	
Wheat Bounty .. .. .	"	132,807	
Total .. .. .	"	561,595	
Aggregate expenditure to 30th June, 1933	"	89,035,387	..
Public Debt, 30th June, 1933—			
Commonwealth—(c)			
War .. .. .	430	283,134,362	42 14 0
Works and other purposes .. .. .	"	113,672,141	17 2 11
Total (c) .. .. .	"	396,806,503	59 16 11
States(c) .. .. .	"	807,851,620	122 1 10
Grand Total(c) .. .. .	"	1,204,658,123	181 13 8
Place of Maturity—			
Australia (£ Aust.) .. .. .	"	607,388,238	91 12 1
London (£ Str.) .. .. .	"	550,799,115	83 1 5
New York (£ Gold) .. .. .	"	46,470,770	7 0 2
Total (c) .. .. .	"	1,204,658,123	181 13 8

(a) Excludes balance of interest on States' Debts. (b) Includes Balance of Receipts over ordinary expenditure, £3,546,608, appropriated for payment of Invalid and Old-age Pensions in following year. (c) Total "Face" or "Book" value of the Public Debt leaving out of account currency changes since the loans were floated.

## C. STATE FINANCE, 1932-33.

## STATE FINANCE, 1932-33 (a).

States.	Revenue. (Page 408.)		Expenditure. (Page 416.)		Net Loan Expenditure. (Page 420.)	
	Amount.	Per Head.	Amount.	Per Head.	Amount.	Per Head.
	£	£ s. d.	£	£ s. d.	£	£ s. d.
New South Wales .. .. .	50,721,350	19 18 9	54,991,961	21 12 4	4,747,338	1 17 4
Victoria .. .. .	24,283,181	13 8 0	25,138,832	13 17 5	2,162,000	1 3 10
Queensland .. .. .	13,396,644	13 15 1	14,951,088	15 7 0	772,038	0 15 10
South Australia .. .. .	10,160,712	17 6 3	11,169,610	19 0 8	641,683	1 1 10
Western Australia .. .. .	8,332,153	19 12 3	9,196,234	21 12 11	2,060,530	4 17 0
Tasmania .. .. .	2,522,191	11 6 4	2,577,407	11 11 3	41,742	0 3 9
All States .. .. .	109,416,231	16 13 4	118,025,132	17 19 7	10,425,331	1 11 9

(a) Preliminary figures subject to revision.

## CHAPTER XV.

## PRIVATE FINANCE.

## B. BANKING, p. 435.

## ALL CHEQUE-PAYING BANKS—AVERAGE LIABILITIES AND ASSETS IN AUSTRALIA, QUARTER ENDED 30th SEPTEMBER, 1933.

Average Liabilities. (Page 442.)		Average Assets. (Page 442.)	
	£		£
Notes in circulation ..	174,915	Coin and Bullion ..	2,722,980
Bills in circulation ..	2,600,685	Australian Notes and Cash with Commonwealth Bank .. ..	43,792,446
Balances due to other Banks Deposits—	24,054,646	Government and Municipal securities .. ..	98,389,834
Not bearing interest ..	92,513,996	Landed and other property Balances due from other Banks .. ..	9,101,526
Bearing interest ..	220,127,269	Notes and Bills of other Banks .. ..	4,054,311
		Advances and all other Assets .. ..	1,444,775
			262,347,343
<b>Total Liabilities (a) ..</b>	<b>339,471,511</b>	<b>Total Assets (a) ..</b>	<b>421,853,215</b>

(a) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

## § 2. Savings Banks, p. 448.

## SAVINGS BANK DEPOSITS (page 451).

State or Territory.	31st July, 1933.	31st August 1933.	30th Septem- ber, 1933.	31st October, 1933.
	£	£	£	£
New South Wales .. ..	72,308,525	72,309,250	72,357,678	72,453,208
Victoria .. ..	67,761,372	67,852,209	67,839,074	67,890,449
Queensland .. ..	23,557,665	23,701,054	23,604,139	23,866,894
South Australia .. ..	22,585,658	22,623,737	22,667,956	22,718,155
Western Australia .. ..	9,985,314	9,951,827	9,961,345	10,007,883
Tasmania .. ..	5,875,894	5,956,766	5,948,685	5,910,748
Federal Capital Territory ..	223,518	222,960	221,668	223,983
Northern Territory .. ..	39,070	39,128	40,026	40,413
<b>Total .. ..</b>	<b>202,337,016</b>	<b>202,656,931</b>	<b>202,640,571</b>	<b>203,111,733</b>



## CHAPTER XVI. MINERAL INDUSTRY.

### § 1. The Mineral Wealth of Australia.

3. Value of Production, p. 495.—The following table gives the value of Australian mineral production for the year 1932 :—

#### MINERAL PRODUCTION.—VALUE, 1932.

Mineral.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
	£	£	£	£	£	£	£	£
Gold ..	203,622	351,586	173,144	22,018	4,413,809	43,137	4,486	5,211,802
Silver and Lead	1,566,912	208	756,546	..	5,716	69,941	..	2,399,323
Copper ..	21,785	..	108,858	..	..	399,762	137	530,542
Iron ..	1,668	..	8,783	618,617	..	..	..	629,068
Tin ..	120,124	404	66,174	..	3,295	109,767	2,322	302,086
Zinc ..	155,928	..	..	..	..	..	..	155,928
Coal (Black)	4,376,453	274,903	684,555	..	270,630	86,733	..	5,693,274
Other ..	86,699	281,893	20,641	197,261	38,290	29,718	6,866	661,368
<b>Total ..</b>	<b>6,533,191</b>	<b>908,994</b>	<b>1,818,701</b>	<b>37,296</b>	<b>4,731,740</b>	<b>739,058</b>	<b>13,811</b>	<b>15,523,391</b>

### § 12. Oil Shale and Mineral Oil, p. 523.

Early in 1933 the Governments of the Commonwealth and of New South Wales appointed a technical Committee to inquire into the economics of the shale oil industry, with Newnes as the focal point. It is expected that the Committee will report at an early date, and, if the report is favorable, the Governments concerned will provide a sum of £80,000 to assist in the development of the deposits, and will encourage the formation of a public company to exploit the areas commercially.

Further inquiries are being prosecuted into the question of obtaining oil from coal by the hydrogenation process.

A Commonwealth Fuel Adviser was appointed in 1932.

## CHAPTER XVIII.

### AGRICULTURAL PRODUCTION.

#### § 4. Wheat.

7. Voluntary Wheat Pools, p. 577.—(i) *General.* Voluntary wheat pools operated in the States of New South Wales, Victoria, South Australia, and Western Australia during the season 1932-33. The New South Wales pool had been inactive during 1928-29 and 1929-30. The system adopted in these States is somewhat similar, and is a co-operative one controlled by trustees, or committees appointed by the growers, the whole of the proceeds, less administrative expenses, being distributed amongst contributors of wheat to the pool. The trading names of these organizations in the various States are as follow :—

New South Wales.—The Farmers and Graziers' Co-operative Grain Insurance and Agency Co. Ltd.

Victoria.—Victorian Wheat-growers' Corporation Ltd.

South Australia.—South Australian Co-operative Wheat Pools Ltd.

Western Australia.—The Trustees of the Wheat Pool of Western Australia.

The marketing of wheat in Queensland was conducted on the compulsory basis by the State Wheat Board, consisting of five elected representatives and the Director of Marketing who represents the Queensland Government.

(ii) *Delivery of Wheat to Pools, Costs, etc.* The quantities of wheat received and the estimated average costs per bushel of rail freight and of administrative and other expenses are given hereunder. As the season's operations are not yet complete, the costs shown are subject to revision.

#### WHEAT RECEIVED BY VOLUNTARY POOLS, 1932-33.

Particulars. :	Unit.	New South Wales.	Victoria.	Queensland. (b)	South Australia.	Western Australia.
Wheat received	Bushel	415,240	15,793,000	2,151,963	7,075,370	12,550,000
Percentage on Total Marketable Wheat	%	0.5	33.0	87.0	19.0	34.0
Estimated average cost of rail freight to seaboard, per bushel	d.	5.4	4.7	4.0	3.93	4.42
Estimated average cost per bushel of Administration and other expenses	d.	3.0	(a)	(c) 4.5	(c) 3.5	2.5

(a) Not yet available.

(b) Compulsory Pool.

(c) Approximate.

(iii) *Finance.* The requisite financial accommodation in New South Wales, Victoria and South Australia was furnished by the Commonwealth Bank. In Western Australia funds were made available by the Co-operative Wholesale Society Ltd., of Great Britain. Initial advances made available to growers on the delivery of their wheat at country stations are shown, together with subsequent payments, in the following table :—

#### WHEAT POOLS ADVANCES(a) PER BUSHEL MADE TO OCTOBER, 1933.

Particulars.	New South Wales.	Victoria.	South Australia.	Western Australia.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1st Payment .. ..	1 6	1 10	2 1	1 10
2nd Payment .. ..	1 2	0 6½	0 3	0 7
3rd Payment .. ..	..	0 2	0 2½	0 2½
Estimated Final Payment	..	(b)	(b)	(b)

(a) Less Rail Freight.

(b) Not yet available.

In Queensland the Commonwealth Bank provides the financial assistance necessary to make advances on wheat delivered, the State Government guaranteeing the Wheat Board's accounts with the bank. All wheat not required for consumption on the farm is delivered to the Board, which is the sole marketing agency. The crop in 1932-33 amounted to 2,474,382 bushels, of which 2,151,963 bushels, or 87.0 per cent., was delivered into the pool. Advances to 28th August, 1933, have been made on milling wheat as follows, viz. :—No. 1 quality, 2s. 9d. per bushel, No. 2, 2s. 7d. to 2s. 8d. per bushel according to quality, and No. 3, 2s. 3d. to 2s. 6d. per bushel according to quality, while advances on feed wheat ranged from 1s. 9d. to 2s. per bushel according to quality. A further advance will be made when the season's operations have been finally dealt with.

## CHAPTER XXIV. LABOUR, WAGES, AND PRICES.

### A.—PRICES.

#### § 2. Retail Prices and House Rents, p. 705.

Retail Price Index Numbers—Food, Groceries and Rent (all Houses) 1911 Base.—The index numbers in the following table are computed for the Commonwealth Court of Conciliation and Arbitration on a different basis to those given in § 2. The rent constituent is based upon the weighted average of *all houses*. The index numbers are directly comparable with those published in Labour Report, No. 15, and in Quarterly Summaries of Australian Statistics previous to No. 99.

#### RETAIL PRICE INDEX NUMBERS—FOOD, GROCERIES AND RENT—ALL HOUSES.

*Weighted Average—Six Capitals in 1911 = 1,000.*

Town.	1928.				1929.				1930.				1931.				1932.			
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
<b>NEW SOUTH WALES.</b>																				
Sydney .. .. .	1,846	1,853	1,825	1,830	1,916	1,905	1,914	1,929	1,851	1,836	1,776	1,704	1,661	1,621	1,571	1,530	1,534	1,522	1,502	1,474
Newcastle .. .. .	1,726	1,722	1,716	1,712	1,777	1,758	1,761	1,769	1,713	1,692	1,641	1,572	1,550	1,513	1,451	1,385	1,397	1,385	1,382	1,346
Newken Hill .. .. .	1,711	1,685	1,666	1,667	1,753	1,761	1,768	1,793	1,719	1,710	1,634	1,581	1,537	1,511	1,435	1,379	1,393	1,377	1,365	1,322
Goulburn .. .. .	1,836	1,840	1,827	1,828	1,897	1,891	1,901	1,926	1,852	1,813	1,750	1,617	1,571	1,540	1,481	1,433	1,438	1,458	1,451	1,422
Bathurst .. .. .	1,555	1,569	1,562	1,549	1,647	1,618	1,620	1,642	1,593	1,584	1,543	1,492	1,465	1,450	1,402	1,343	1,339	1,335	1,313	1,279
Weighted Average— New South Wales .. .. .	1,830	1,835	1,810	1,814	1,898	1,887	1,895	1,910	1,834	1,819	1,759	1,687	1,646	1,607	1,555	1,512	1,516	1,504	1,487	1,457
<b>VICTORIA.</b>																				
Melbourne .. .. .	1,768	1,761	1,729	1,726	1,801	1,816	1,816	1,815	1,733	1,723	1,667	1,565	1,519	1,457	1,411	1,405	1,417	1,392	1,369	1,332
Ballarat .. .. .	1,553	1,549	1,548	1,540	1,604	1,610	1,636	1,655	1,579	1,576	1,542	1,455	1,420	1,371	1,339	1,327	1,350	1,322	1,304	1,279
Bendigo .. .. .	1,584	1,583	1,575	1,556	1,629	1,621	1,655	1,659	1,577	1,576	1,525	1,428	1,389	1,330	1,297	1,294	1,286	1,274	1,259	1,226
Geelong .. .. .	1,712	1,693	1,672	1,681	1,731	1,717	1,729	1,734	1,635	1,624	1,577	1,505	1,459	1,420	1,399	1,407	1,410	1,400	1,383	1,342
Warrnambool .. .. .	1,585	1,575	1,549	1,556	1,594	1,600	1,654	1,688	1,618	1,623	1,588	1,547	1,484	1,435	1,424	1,438	1,447	1,437	1,424	1,393
Weighted Average— Victoria .. .. .	1,749	1,742	1,713	1,709	1,782	1,795	1,798	1,799	1,717	1,707	1,653	1,554	1,507	1,448	1,404	1,398	1,409	1,385	1,363	1,327
<b>QUEENSLAND.</b>																				
Brisbane .. .. .	1,596	1,593	1,584	1,608	1,633	1,610	1,615	1,624	1,554	1,461	1,406	1,342	1,343	1,333	1,293	1,289	1,289	1,269	1,246	1,229
Toowoomba .. .. .	1,449	1,454	1,458	1,470	1,499	1,477	1,488	1,508	1,453	1,427	1,396	1,337	1,324	1,286	1,246	1,251	1,251	1,260	1,239	1,219
Rockhampton .. .. .	1,516	1,526	1,505	1,539	1,579	1,545	1,551	1,555	1,536	1,484	1,455	1,397	1,399	1,350	1,310	1,327	1,318	1,290	1,263	1,244
Charts Towers .. .. .	1,505	1,497	1,490	1,541	1,580	1,547	1,565	1,539	1,485	1,465	1,362	1,321	1,318	1,318	1,277	1,265	1,276	1,257	1,230	1,213
Warwick .. .. .	1,425	1,430	1,431	1,454	1,496	1,468	1,476	1,495	1,431	1,406	1,375	1,314	1,311	1,288	1,261	1,267	1,249	1,247	1,226	1,210
Weighted Average— Queensland .. .. .	1,570	1,569	1,561	1,586	1,613	1,589	1,595	1,608	1,539	1,459	1,407	1,345	1,345	1,330	1,289	1,288	1,288	1,269	1,246	1,228

RETAIL PRICE INDEX NUMBERS—FOOD, GROCERIES AND RENT—ALL HOUSES—continued.

Weighted Average—Six Capitals in 1911 = 1,000.

Town.	1928.				1929.				1930.				1931.				1932.			
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
SOUTH AUSTRALIA.																				
Adelaide .. .. .	1,758	1,760	1,713	1,689	1,766	1,784	1,781	1,755	1,689	1,655	1,563	1,466	1,427	1,370	1,286	1,280	1,299	1,289	1,258	1,218
Kadina, &c. .. .	1,464	1,445	1,424	1,434	1,489	1,471	1,497	1,506	1,423	1,406	1,350	1,261	1,237	1,192	1,115	1,126	1,166	1,157	1,146	1,103
Port Pirie .. .	1,564	1,565	1,532	1,528	1,606	1,595	1,618	1,621	1,559	1,559	1,494	1,429	1,396	1,341	1,276	1,272	1,299	1,280	1,250	1,199
Mount Gambier .. .	1,420	1,416	1,411	1,389	1,439	1,445	1,463	1,466	1,401	1,353	1,333	1,274	1,202	1,181	1,167	1,174	1,208	1,201	1,182	1,164
Peterborough .. .	1,682	1,672	1,655	1,673	1,741	1,724	1,758	1,749	1,668	1,660	1,608	1,501	1,438	1,393	1,322	1,334	1,343	1,319	1,296	1,262
Weighted Average— South Australia .. .	1,733	1,734	1,689	1,668	1,743	1,759	1,759	1,736	1,669	1,637	1,549	1,453	1,414	1,359	1,277	1,272	1,292	1,282	1,252	1,212
WESTERN AUSTRALIA.																				
Perth, &c. .. .	1,607	1,689	1,706	1,705	1,724	1,742	1,716	1,678	1,660	1,651	1,581	1,470	1,484	1,461	1,379	1,339	1,361	1,363	1,316	1,277
Kalgoorlie, &c. .. .	1,480	1,515	1,577	1,583	1,626	1,667	1,659	1,579	1,525	1,554	1,530	1,391	1,376	1,390	1,386	1,403	1,435	1,469	1,450	1,431
Northam .. .	1,571	1,610	1,637	1,639	1,664	1,667	1,672	1,633	1,599	1,609	1,557	1,446	1,407	1,369	1,328	1,319	1,317	1,343	1,319	1,274
Bunbury .. .	1,525	1,559	1,593	1,572	1,578	1,613	1,616	1,586	1,575	1,574	1,510	1,384	1,360	1,352	1,301	1,261	1,245	1,270	1,254	1,239
Geraldton .. .	1,565	1,570	1,571	1,596	1,627	1,650	1,661	1,629	1,621	1,630	1,615	1,488	1,484	1,481	1,458	1,424	1,421	1,427	1,372	1,300
Weighted Average— Western Australia .. .	1,590	1,664	1,685	1,686	1,707	1,728	1,706	1,663	1,642	1,638	1,575	1,460	1,469	1,450	1,379	1,345	1,367	1,373	1,330	1,292
TASMANIA.																				
Hobart .. .	1,658	1,665	1,653	1,666	1,730	1,721	1,725	1,740	1,687	1,685	1,651	1,564	1,534	1,491	1,431	1,433	1,453	1,456	1,427	1,410
Launceston .. .	1,594	1,597	1,580	1,569	1,618	1,611	1,628	1,668	1,602	1,590	1,558	1,495	1,465	1,428	1,391	1,378	1,387	1,377	1,352	1,334
Burnie .. .	1,566	1,588	1,562	1,576	1,640	1,623	1,663	1,669	1,589	1,606	1,563	1,466	1,389	1,365	1,337	1,340	1,370	1,347	1,320	1,297
Devonport .. .	1,559	1,583	1,540	1,532	1,609	1,605	1,634	1,635	1,539	1,535	1,519	1,441	1,423	1,374	1,342	1,357	1,395	1,382	1,335	1,328
Queenstown .. .	1,389	1,406	1,416	1,418	1,494	1,487	1,492	1,520	1,464	1,469	1,458	1,405	1,374	1,327	1,300	1,315	1,331	1,329	1,321	1,317
Weighted Average— Tasmania .. .	1,622	1,630	1,615	1,620	1,681	1,673	1,683	1,704	1,644	1,640	1,608	1,529	1,498	1,457	1,407	1,406	1,424	1,422	1,394	1,377
Weighted Average— Thirty Towns .. .	1,745	1,750	1,727	1,728	1,797	1,797	1,800	1,803	1,731	1,711	1,651	1,566	1,531	1,487	1,435	1,414	1,423	1,409	1,386	1,354
Weighted Average— Six Capital Cities .. .	1,768	1,774	1,748	1,749	1,820	1,821	1,823	1,825	1,752	1,730	1,668	1,582	1,546	1,501	1,447	1,425	1,435	1,419	1,395	1,363

*Retail Price Index-Numbers—Capital Cities—Annual Figures—1901 to 1932.*—The index-numbers given in the separate parts of the table cannot be compared with each other in order to show the relative cost of (say) housing, and food and groceries, since the weighted average cost for the six capital cities taken together in 1911 in each group or combination is made equal to 1,000.

*Weighted Average—Six Capitals in 1911 = 1,000.*

**FOOD AND GROCERIES ONLY.**

City.	1901.	1907.	1911.	1914.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
Sydney .. .. .	917	936	989	1,156	1,540	1,549	1,783	2,148	1,898	1,703	1,820	1,732	1,785	1,867	1,846	1,826	1,948	1,759	1,567	1,524
Melbourne .. .	965	925	935	1,091	1,412	1,466	1,620	2,056	1,901	1,644	1,802	1,684	1,748	1,774	1,732	1,684	1,795	1,632	1,414	1,355
Brisbane .. .	965	947	1,018	1,078	1,406	1,495	1,762	2,052	1,812	1,608	1,693	1,690	1,734	1,788	1,680	1,671	1,701	1,508	1,392	1,320
Adelaide .. .	1,028	951	1,020	1,215	1,445	1,554	1,719	2,132	1,906	1,723	1,823	1,791	1,840	1,869	1,841	1,775	1,887	1,674	1,411	1,361
Perth .. .	1,184	1,197	1,346	1,302	1,505	1,486	1,772	2,050	1,995	1,776	1,828	1,891	1,938	1,866	1,796	1,882	1,938	1,719	1,494	1,438
Hobart .. .	1,011	1,010	1,058	1,212	1,544	1,635	1,748	2,162	2,025	1,794	1,863	1,849	1,810	1,868	1,788	1,727	1,833	1,702	1,459	1,425
Weighted Average— Six Capitals ..	972	955	1,000	1,144	1,472	1,514	1,716	2,101	1,902	1,684	1,805	1,732	1,785	1,829	1,789	1,761	1,866	1,682	1,477	1,425

**HOUSING—ALL HOUSES.**

Sydney .. .. .	858	911	1,090	1,279	1,215	1,252	1,289	1,415	1,474	1,535	1,617	1,687	1,729	1,813	1,808	1,857	1,870	1,839	1,637	1,486
Melbourne .. .	733	804	970	1,126	1,124	1,180	1,283	1,405	1,502	1,597	1,672	1,729	1,742	1,839	1,850	1,835	1,836	1,729	1,497	1,412
Brisbane .. .	488	575	767	882	859	905	983	1,061	1,079	1,206	1,247	1,242	1,251	1,459	1,480	1,487	1,505	1,344	1,204	1,171
Adelaide .. .	629	812	1,112	1,040	959	1,022	1,108	1,216	1,289	1,360	1,450	1,551	1,565	1,553	1,601	1,665	1,607	1,477	1,240	1,134
Perth .. .	801	684	810	914	874	885	916	996	1,055	1,092	1,124	1,134	1,154	1,316	1,331	1,382	1,395	1,497	1,304	1,177
Hobart .. .	667	708	805	914	951	956	1,134	1,373	1,440	1,445	1,602	1,665	1,634	1,650	1,603	1,565	1,580	1,568	1,492	1,455
Weighted Average— Six Capitals ..	751	816	1,000	1,135	1,098	1,143	1,215	1,333	1,404	1,480	1,551	1,609	1,632	1,725	1,734	1,758	1,760	1,685	1,483	1,374

**FOOD, GROCERIES AND HOUSING—ALL HOUSES—COMBINED.**

Sydney .. .. .	893	926	1,031	1,206	1,406	1,427	1,580	1,847	1,724	1,634	1,737	1,714	1,762	1,844	1,830	1,839	1,916	1,792	1,596	1,508
Melbourne .. .	870	875	950	1,105	1,294	1,349	1,481	1,788	1,737	1,625	1,749	1,703	1,745	1,801	1,781	1,746	1,812	1,672	1,448	1,378
Brisbane .. .	769	794	915	997	1,181	1,252	1,442	1,645	1,511	1,442	1,510	1,506	1,535	1,653	1,598	1,595	1,620	1,441	1,315	1,258
Adelaide .. .	864	894	1,058	1,143	1,245	1,335	1,468	1,756	1,653	1,574	1,670	1,693	1,727	1,739	1,742	1,730	1,772	1,593	1,341	1,266
Perth .. .	1,027	986	1,126	1,143	1,246	1,239	1,420	1,617	1,609	1,495	1,538	1,580	1,616	1,640	1,605	1,677	1,715	1,591	1,416	1,329
Hobart .. .	869	886	954	1,090	1,301	1,356	1,496	1,837	1,785	1,651	1,756	1,773	1,738	1,778	1,712	1,661	1,729	1,647	1,472	1,437
Weighted Average— Six Capitals ..	880	897	1,000	1,140	1,318	1,362	1,510	1,785	1,697	1,600	1,700	1,682	1,722	1,786	1,766	1,760	1,822	1,683	1,479	1,403



## GENERAL INDEX.\*

[NOTE.—This index is followed by a list of maps, graphs, and diagrams, also a list of special articles, etc., in previous issues of the Official Year Book.]

	PAGE		PAGE
<b>A.</b>		<b>Ages at Death—continued.</b>	
Aboriginals ..	309, 337, 788	Of Mothers ..	800
Account of Origin, etc. ..	788	Who died from Puerperal Causes ..	837
Former Numbers and Distribution ..	309, 788	Of Parents ..	800
In Northern Territory ..	309, 337	Of Permanent new Arrivals or Permanent Departures ..	783
Protection ..	309	Of Persons who died from Cancer ..	830
Accidents—		Suicide ..	838
Civil Aviation ..	194	Tuberculosis ..	827
Coal Mining ..	522, 527	Agricultural Banks—Loans to Settlers ..	130 to 132
Deaths ..	840	Colleges ..	615
Mining ..	527	Departments ..	615
National Safety Council ..	860	Graduates, Land Settlement, South Australia ..	131
Railways ..	161, 184	High Schools ..	273
Shipping ..	149	Implement Works ..	677
Accounts, Commonwealth Government ..	368	Leases, Northern Territory ..	173
Open, Savings Banks ..	449	Production ..	561 to 615
State Government ..	408	Value of ..	565, 566
Acetate of Lime Factory ..	329	Training in State Schools ..	273
Adelaide, Electric Tramways ..	189	Water Supply, Western Australia ..	106
Sewerage ..	104	Agriculture (See also Crops) ..	561
University ..	277	Area under Crop ..	561
Waterworks ..	103	Discovery of Suitable Land ..	561
Administration, Crown Lands ..	114	Early Records ..	561
Federal Capital Territory ..	342	New Guinea ..	358
Health ..	311	Northern Territory ..	338
Justice, Cost of ..	299	Papua ..	350
Letters of ..	470	Progress ..	561
Nauru ..	365	Yield of Crops ..	564
Norfolk Island ..	347	Aircraft ..	191
Northern Territory ..	337	Construction ..	193
Papua ..	348	Notable Flights ..	193
State Railways ..	162	Services ..	191
Advances, by Cheque-Paying Banks ..		Statistical Summary ..	194
For Mining ..	441, 444	Air Defence ..	328
Soldier Land Settlement ..	528	Force Establishment ..	328
To Settlers ..	112, 130 to 132	Pilots, Training of ..	193, 328
Wheat Pools ..	899	Services ..	191
Aerial Ambulance Service ..	192	Survey ..	193
Mail Services ..	192	Alcoholic Beverages, Consumption ..	290
Routes ..	191, 328	Ale and Stout, Production ..	688
Aero Clubs, Australian Associated ..	103	Alice Springs—Port Augusta Railway ..	155
Aerodromes ..	191	Alienated Holdings, Classification of ..	137
After-auction Purchases of Land ..	119	Alienation of Crown Lands ..	112 to 139
Age Distribution of Population ..	775	Total ..	133 to 136
Agency Companies ..	455	Alien Immigrants ..	785
Agencies at Death ..	816, 845	Aliens, Tenure of Land by ..	130
Of Bridegrooms ..	806		
Of Brides ..	806		
Of Married Persons ..	807		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Alkali, used in Soap and Candle		Australasian Association for the Advancement of Science	283
Factories .. .. .	675	Australian Fleet .. .. .	327
Ambulance Service, Aerial .. .. .	192	Balance of Payments .. .. .	873
Ammonia Sulphate, Exports .. .. .	612	Bibliography .. .. .	863
Anatomy, Australian Institute of .. .. .	853	Imperial Force .. .. .	330
Animals (Living), net Exports .. .. .	534	Loan Council .. .. .	23, 434
Antarctica .. .. .	861	Navy .. .. .	327
Antimony .. .. .	495	Notes .. .. .	406
Appendicitis, Deaths .. .. .	835	Private Wealth (see Synopsis) .. .. .	471
Apples, Exports of .. .. .	605	War Loans .. .. .	390
Production .. .. .	603	Automatic Telephones .. .. .	214
Apprenticeship .. .. .	660, 745	Aviation .. .. .	191
Apricots .. .. .	603	Awards, Industrial .. .. .	714
Arbitration Acts, Operations under 714, 725		Wages Boards .. .. .	714
Court, Commonwealth			
299, 715, 725, 901			
Arbitrator, Public Service .. .. .	714		
Area, Australia .. .. .	1		
Compared with Other Countries .. .. .	33		
Forests .. .. .	632		
Irrigated .. .. .	700		
Location, etc., Norfolk Island .. .. .	346		
Nauru .. .. .	364		
New Guinea .. .. .	354		
Northern Territory .. .. .	336		
Papua .. .. .	348		
Relative, States and Territories .. .. .	35		
States and Territories .. .. .	1, 35		
Tropical and Temperate Regions .. .. .	33		
Under Crop (see Crops) .. .. .	561, 562, 567		
Arms Factories .. .. .	329		
Arrivals, Excess over Departures .. .. .	769		
Oversea Migration .. .. .	779		
Arsenic .. .. .	495		
Artesian Basins .. .. .	698, 699		
Bores .. .. .	699		
Waters, Western Australia .. .. .	106, 698		
Art Galleries, Public .. .. .	284		
Artificial Manures .. .. .	611		
Artificially-sown Grasses .. .. .	562		
Asbestos .. .. .	495		
Asiatics in Australia .. .. .	776		
Northern Territory .. .. .	336		
Territory of New Guinea .. .. .	356		
Assemblies, Legislative .. .. .	66 to 71		
Assets, Commonwealth Bank .. .. .	439		
Cheque-Paying Banks .. .. .	441		
Postmaster-General's Department .. .. .	202		
Assisted Immigrants .. .. .	784		
Associations .. .. .	745 to 752		
Employers' .. .. .	750		
Labour .. .. .	745 to 750		
Assurance, Life .. .. .	461		
Asylums, Benevolent .. .. .	303		
Destitute .. .. .	303		
Insane .. .. .	305		
Orphanage .. .. .	304		
Attorney-General's Department, Expenditure .. .. .	300, 383		
Auction Sales of Crown Lands .. .. .	119		
		<b>B.</b>	
		Baby Health Centres .. .. .	321
		Bacon and Ham .. .. .	542, 621, 681
		Consumption .. .. .	621
		In Various Countries .. .. .	535
		Curing Factories .. .. .	680
		Exports .. .. .	622, 627
		Imports .. .. .	622
		Into United Kingdom .. .. .	627, 628
		Production .. .. .	621, 623, 626, 681
		Bakeries .. .. .	683
		Balance of Oversea Trade .. .. .	233, 249, 873
		International Indebtedness .. .. .	878
		International Payments .. .. .	234, 873
		Ballarat Water Commission .. .. .	101
		Sewerage Authority .. .. .	101
		Bananas .. .. .	603
		Bank, Commonwealth .. .. .	437 to 440
		Commonwealth Savings .. .. .	438, 448, 452
		Bankers' Clearing Houses .. .. .	445
		Banking Legislation .. .. .	435
		Bank Notes .. .. .	435, 438
		Tax .. .. .	435
		Bankruptcies .. .. .	297
		Act, Commonwealth .. .. .	298
		Court, Federal .. .. .	298
		Banks .. .. .	435 to 455, 898
		Cheque-Paying .. .. .	435 to 448, 898
		Advances and Advances and Securities .. .. .	444
		Amalgamations .. .. .	437
		Assets in Australia .. .. .	439 to 443, 898
		Banking Legislation .. .. .	435
		Banking Statistics .. .. .	435
		Capital Resources .. .. .	435
		Cash Reserves Ratios .. .. .	443
		Clearing House Returns .. .. .	445
		Commonwealth .. .. .	437
		Deposits per Head of Population .. .. .	444
		Deposit Rates .. .. .	445
		Federal Deposit .. .. .	437
		In Operation .. .. .	435
		Legislation, Banking .. .. .	435

\* For Index to special articles and other matter in preceding Year Books, see page 939.



	PAGE		PAGE
Banks— <i>continued.</i>		Beef, Consumption, Australia and	
Cheque Paying— <i>continued.</i>		Other Countries ..	535, 543
Liabilities in Australia		Exports of Frozen ..	535, 543
439 to 442, 898		Imports into United Kingdom..	545
Other .. .. .	440	Net Exports .. .. .	534
Primary Producers' Bank of		Ottawa Conference Agreement..	544
Australia Limited ..	437	Production .. .. .	543
Rates of Exchange ..	446	Beer, Consumption per Head ..	290
Suspension of Payments ..	437	Production .. .. .	688
Savings .. .. .	448 to 455, 898	Quantity on which Excise Duty	
Advances to Settlers 130 to 132		was paid .. .. .	268
Amalgamations .. .. .	449	Beet, Sugar .. .. .	589, 595
Assets .. .. .	454	Bendigo Sewerage Authority ..	102
Classification of Depositors'		Benefactions, Universities ..	278
Balances .. .. .	449	Benevolence, Public .. .. .	301
Commonwealth .. .. .	448, 452	Benevolent Asylums .. .. .	303
Deposits .. .. .	451 to 454, 898	Beverages, Alcoholic, Consumption	
Extension of Facilities ..	449	per head .. .. .	290
New South Wales Govern-		Bibliography of Works on Australia	863
ment .. .. .	449	Bilharziasis .. .. .	315
Number of Accounts ..	449	Billiard Table Factories .. ..	696
Profit and Loss Accounts ..	455	Binding Establishments .. ..	694
Rates of Interest on		Birdum-Darwin Railway .. ..	154, 340
Deposits .. .. .	450	Birthplaces of Deceased Married Per-	
School .. .. .	275	sons .. .. .	846
State .. .. .	453	Of Deceased Persons .. ..	819
Statistical Returns ..	450	Of Parents .. .. .	800
Western Australia State ..	449	Of Persons Married .. ..	808
Bark, used in Tanneries .. ..	674	Births .. .. .	789
Barks, Tan .. .. .	636	Ages of Parents .. .. .	800
Exports and Imports..	640	Birthplaces of Parents .. ..	800
Barley .. .. .	582	Duration of Marriage of Mothers	802
Area under .. .. .	567, 582	Ex-nuptial .. .. .	792
Average Yield per acre ..	584	Masculinity .. .. .	792
Exports and Imports ..	584	Female .. .. .	789
Malting .. .. .	583, 585	Interval between Birth and Re-	
Pearl and Scotch, Exports ..	585	gistration .. .. .	805
Prices .. .. .	584	Between Marriage and First	
Production .. .. .	568, 582	Birth .. .. .	804
In Various Countries ..	584	Issue of Mothers .. .. .	802
World's.. .. .	584	Male .. .. .	789
Value of Crop .. .. .	585	Masculinity .. .. .	791
Barometric Pressures .. .. .	51	In Various Countries ..	792
In Capital Cities .. .. .	54 to 61	Multiple .. .. .	799
Mean Monthly .. .. .	47	Occupations of Fathers ..	801
Barytes .. .. .	495	Previous Issue of Mothers ..	803
Basic Wage .. .. .	725	Rates .. .. .	790, 796, 797
Royal Commission on ..	729	And Factors affecting them	790
Beam Wireless .. .. .	217	At Child-bearing Ages 790, 791	
Rates .. .. .	212	In Various Countries ..	791
Beans .. .. .	586	Nuptial .. .. .	791
Bêche-de-mer .. .. .	643, 645	Registrations, Federal Capital	
Bee Farming .. .. .	625	Territory .. .. .	847
Hives .. .. .	625	Total .. .. .	789, 793
Products .. .. .	625, 626	Triplets .. .. .	799
Trade in .. .. .	626, 627	Twins .. .. .	799
Beeswax, Exports and Imports	626, 627	Bismuth .. .. .	495
Production .. .. .	625	Blankets, Production .. .. .	691

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Board, Country Roads, Victoria ..	81	British Astronomical Society ..	282
Hunter District Water Supply		Australian Wool Realization	
and Sewerage .. ..	96	Association .. ..	557
Main Roads, Queensland ..	81	Empire, Area and Population ..	774
Melbourne and Metropolitan		Medical Association .. ..	282
Tramway .. ..	188	New Guinea (see Papua) ..	348
Metropolitan Fire Brigades,		Phosphate Commission ..	366
Melbourne .. ..	110	Preference .. ..	222, 225
Metropolitan Water, Sewerage		Broadcasting, Radio .. ..	217
and Drainage, Sydney ..	96	Broken Hill Silver Mines ..	503
of Fire Commissioners, New		Bronchitis, Deaths .. ..	834
South Wales .. ..	110	Bronze Coinage .. ..	405
of Works, Melbourne and Metro-		Issues .. ..	406
politan .. ..	99	Standard Weight and Fineness	403
Pacific Cable .. ..	211	Brown Coal .. ..	495, 516, 517, 518
Tariff .. ..	226	Distillation Products ..	517
Boards, District Road, Western Aus-		Building and Investment Societies	456
tralia .. ..	92	Bullion, Exports and Imports 256, 259, 267	
Fire Brigade .. ..	110	Bunbury Harbour Board ..	109
Harbour .. ..	106 to 110	Bundaberg Harbour Board ..	108
Industrial .. ..	714	Bureau of Census and Statistics 383, 862	
Licences Reduction .. ..	851	Sugar Experiment Stations	594
Marine .. ..	106	Burnie Marine Board .. ..	110
of Health, Western Australia ..	93	Burns, Deaths .. ..	840
Wages .. ..	715	Bush Nursing Associations ..	321
Boats, engaged in Fisheries	644, 645	Business Colleges .. ..	281
Bone Diseases, Deaths .. ..	837	Undertakings (Government)—	
Bonedust, Exports and Imports ..	612	Commonwealth Revenue ..	379
Bones, Net Exports .. ..	534	States Revenue .. ..	415
Books dealing with Australia ..	863	Butter .. ..	619
Boot Factories .. ..	691	Average Price in London ..	628
Repairing Factories .. ..	691	Bounty on Exports .. ..	616
Boots, Production .. ..	692	Consumption, Australia and	
Bores, Artesian .. ..	699	Other Countries .. ..	621
Boroughs, Victoria .. ..	88	Exports .. ..	255, 542, 620, 627
Bounties .. ..	610	To Eastern Countries ..	246
Cotton .. ..	609, 611	Factories .. ..	617, 681
Fish, Preserved .. ..	645	Imports .. ..	620
Flax and Linseed .. ..	609, 610	Into United Kingdom ..	627
Gold .. ..	501, 528, 611	Production 542, 619, 623, 627, 682	
Iron and Steel .. ..	514, 610	Stabilization Scheme ..	616
Papua and New Guinea Act ..	611		
Sugar .. ..	596	<b>C.</b>	
Sulphur .. ..	610	Cabinet, Constitution .. ..	62
Wheat .. ..	611	Cabinet-making Factories ..	696
Wine .. ..	599, 610	Cabinet Ministers, Federal ..	72
Bowen Harbour Board .. ..	107	State .. ..	73
Bran, Production .. ..	686	Cablegrams .. ..	211
Breweries .. ..	687	Rates .. ..	212
Bridegrooms, Ages .. ..	806	Cables, Overseas .. ..	211
Birthplaces .. ..	808	Cable Tramways, Melbourne	186, 188
Occupations .. ..	808	Cadets .. ..	325
Brides, Ages .. ..	806	Cadmium .. ..	503, 531
Birthplaces .. ..	808	Cairns Harbour Board .. ..	108
Bridges, Government .. ..	80	Calfskins, Exports .. ..	559
Net Loan Expenditure, States	83	Camels .. ..	339, 533
Bright's Disease, Deaths .. ..	835	Canadian Preference .. ..	225
Briquettes .. ..	517	Canberra (see Federal Capital Terri-	
Brisbane Electric Tramways	189	tory) .. ..	342
Sewerage .. ..	102	"Canberra Past and Present"	
Waterworks .. ..	102	(Special Article) .. ..	342
		Canberra—Queanbeyan Railway 155, 344	

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Cancer, Deaths .. ..	829 to 832	Children— <i>continued.</i>	
Organization for the Control		Medical Inspection of School ..	316
of .. ..	315	Neglected .. ..	305, 321
Candle and Soap Factories ..	675	State .. ..	305, 321
Candles, Production .. ..	675	Children's Courts .. ..	291
Cane-sugar (see Sugar-cane) ..	592	Chinese in Australia .. ..	788
Capital Punishment .. ..	294	Restriction on Immigration ..	785
Cargo Tonnage .. ..	148	Chocolate Factories .. ..	684
Casein .. ..	623	Chronological Table .. ..	xxv
Cattle .. ..	532, 539, 541	Cigarette Factories .. ..	689
Dairy, in Australia .. ..	618	Cigarettes, Imports .. ..	689
Registered Dairies .. ..	311, 616	Production .. ..	689
Exports .. ..	543	Quantity on which Excise Duty	
Hides, Exports .. ..	559	was Paid .. ..	268
Imports .. ..	560	Cigar Factories .. ..	689
Imports .. ..	543	Cigars, Imports .. ..	689
In Federal Capital Territory ..	344	Production .. ..	689
„ New Guinea .. ..	360	Quantity on which Excise Duty	
„ Norfolk Island .. ..	347	was Paid .. ..	268
„ Northern Territory .. ..	339	Circulatory System, Deaths ..	834, 843
„ Papua .. ..	351	Cirrhosis of the Liver, Deaths ..	835
„ Various Countries .. ..	540	Cities (see Municipalities)	
Net Exports .. ..	534	Population .. ..	766
Percentage in each State .. ..	539	Citizen Forces .. ..	325
Per Head of Population .. ..	533	Citrus Fruits .. ..	603, 605
Per Square Mile .. ..	533	Civil Aviation Department ..	191
Slaughtered .. ..	543	Courts .. ..	296
World's Total .. ..	540	Servants, Number .. ..	77
Causes of Death .. ..	814, 820 to 844	Clear Days at the Capital Cities ..	54 to 61
Classification .. ..	820	Clearing Houses, Bankers' ..	445
Of Industrial Disputes .. ..	739	Climate .. ..	36
Censorship, Film .. ..	859	Influences affecting Australian ..	52
Census of 1933—Results .. ..	753	Influences of Forests on .. ..	52
Census and Statistics Bureau ..	383, 862	Nauru .. ..	364
Censuses of Population .. ..	753	New Guinea .. ..	354
Centenarians, Deaths .. ..	817	Northern Territory .. ..	338
Central Labour Organizations ..	749	Climatological Stations .. ..	37
Cerebral Hæmorrhage, Deaths ..	833	Tables for Australian Capital	
Cerebro-spinal Meningitis, Deaths	829	Cities .. ..	53 to 61
Charities .. ..	301	Clinics, Baby .. ..	321
State Expenditure .. ..	78, 310	School, Dental .. ..	316
Cheese .. ..	619	Closer Settlement .. ..	112, 124 to 126
Consumption, Australia and		Cloth, Production .. ..	691
Other Countries .. ..	621	Clothing Factories .. ..	692
Exports .. ..	620, 627	Factory, Commonwealth .. ..	329
Factories .. ..	617, 681	Clouds at the Capital Cities ..	54 to 61
Imports .. ..	620	Coal .. ..	495, 497, 515, 899
Into United Kingdom .. ..	627, 628	Briquettes .. ..	517
Production .. ..	542, 620, 623, 626, 682	Brown .. ..	495, 515, 516, 517
Cheque-paying Banks (see Banks)		Distillation Products .. ..	517
.. ..	435 to 448, 898	Bunker .. ..	258, 519
Cherries .. ..	603	Consumption .. ..	520
Childbirth, Deaths in .. ..	836, 837	Distribution in each State ..	516
Child Endowment .. ..	729	of New South Wales Output ..	520
Labour in Factories .. ..	658	Employment in Mining .. ..	522, 526
Royal Commission on .. ..	730	Exports .. ..	519
Children, Deaths .. ..	811	Bunker .. ..	258, 519
Under one year .. ..	320, 814	Destination .. ..	519
Education of .. ..	270	To Eastern Countries .. ..	246
Scheme, Soldiers' .. ..	332	Licences, Queensland .. ..	727
Employed in Factories .. ..	658		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Coal— <i>continued.</i>		Commonwealth— <i>continued.</i>	
Mining Accidents and Fatalities		Council for Scientific and Industrial Research .. ..	852
Leases .. ..	522, 527 126 to 128	Court of Conciliation and Arbitration .. ..	299, 715, 725, 901
Prices .. ..	521	Creation of .. ..	1
In United Kingdom .. ..	521	Defence .. ..	322
Production 495, 497, 508, 515, 899		Department of Fisheries .. ..	647
In British Empire .. ..	518	Department of Health .. ..	311
In Various Countries .. ..	518	Departments, Cost of .. ..	381
Reserves .. ..	518	Establishment of .. ..	1
Used in Making Gas .. ..	697	Expenditure 369, 380, 428, 897	
Used by Railways .. ..	184	Attorney-General's Department .. ..	300, 383
Coastal Configuration of Australia .. ..	35	Commerce Department .. ..	385
Names, Historical Significance .. ..	35	Defence Department .. ..	384
Plain Artesian Basin .. ..	698	Details .. ..	380
Steamship Services .. ..	148	Governor-General and Establishment .. ..	75, 381
Coastline of Australia .. ..	35	Health Department .. ..	385
Coco-nut Oil used in Soap and Candle Factories .. ..	675	Interior Department .. ..	383
Coffee .. ..	610	Loan .. ..	389
Coinage .. ..	493	Nature of .. ..	380
Coin, Withdrawals of Worn 404, 406		New Works .. ..	387
Coke, Production .. ..	523, 697	Parliament .. ..	381
Works .. ..	697	Payments to or for the States .. ..	388, 416
College, Military .. ..	326	Per Head of Population 380, 897	
Naval .. ..	327, 344	Postmaster-General's Department .. ..	201, 386
University, Canberra .. ..	279	Prime Minister's Department .. ..	382
Colleges, Agricultural .. ..	615	Railways .. ..	387
Business .. ..	281	Territories .. ..	387
Teachers' .. ..	273, 316	Total .. ..	369, 897
Technical .. ..	280	Trade and Customs Department .. ..	385
Training .. ..	273	Treasury Department .. ..	382
Colonies, Dates of Foundation .. ..	1	War Services .. ..	387, 396
Colonization of Australia .. ..	1	Factories .. ..	329
Commerce (see also Trade)	220	Finance .. ..	368, 428, 897
Department Expenditure .. ..	385	Forestry Activities, Commonwealth .. ..	631
Powers of Commonwealth in regard to .. ..	220	Health Laboratories .. ..	314
Trade Descriptions Act .. ..	227	High Court .. ..	298
Commercial Legislation .. ..	220	Invalid Pensions .. ..	397
Commission, Basic Wage .. ..	729	Legislation, Course of .. ..	74
British Phosphate .. ..	366	Affecting Foreign Trade 220, 868	
Pearl-shelling .. ..	643	Loan Expenditure .. ..	389, 897
War Service Homes .. ..	335	Funds .. ..	388
Commissioners, Commonwealth Trade 228		Maternity Allowance .. ..	400
Committals to Superior Courts 287, 291		Ministers .. ..	72, 867
Commonwealth, Accounts .. ..	368	Ministries .. ..	72, 867
Advances to States .. ..	334	Note Issue .. ..	406
And State Finance .. ..	408, 428	Old-age Pensions .. ..	397
Taxation .. ..	429	Parliamentary and National Library .. ..	283
Public Debts 21, 391, 430, 897		Parliaments .. ..	65, 71
Area, compared with other Countries .. ..	33	Powers in regard to Commerce .. ..	9, 14, 220
Bank .. ..	437	Proclamation of .. ..	20
Aggregate Profits .. ..	438		
Assets and Liabilities 439, 440			
Bankruptcy Act .. ..	297		
Civil Servants, Number .. ..	77		
Consolidated Revenue Fund 370, 380, 897			
Constitution .. ..	2, 368		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Commonwealth— <i>continued.</i>		Consolidated Revenue Fund, Commonwealth .. ..	370, 380, 897
Properties transferred from		States .. ..	408
States .. ..	30, 390	Expenditure from, on Railway Construction ..	170
Public Debt .. ..	388, 391, 430, 897	Constitution, Commonwealth .. ..	2
Public Service Arbitrator .. ..	714	Alteration of .. ..	19
Superannuation Fund .. ..	402	Financial Provisions .. ..	14, 368
Railways .. ..	154, 379, 387	Constitutions, States .. ..	2
Referenda .. ..	66	Under Commonwealth Act .. ..	17
Revenue .. ..	369, 428, 897	Consular Representatives .. ..	79
Business Undertakings .. ..	379	Consumers' Co-operative Societies .. ..	457
Coinage .. ..	371	Consumption (see Tuberculosis) .. ..	826
Customs .. ..	258, 372, 373	Contagious Diseases .. ..	311
Defence .. ..	371	Contingents, Australian .. ..	330
Entertainments Tax .. ..	371, 377	Convictions at Magistrates' Courts .. ..	287, 288
Estate Duty .. ..	371, 375	Superior Courts .. ..	293
Excise .. ..	371, 373	Cook's Arrival and Landing at	
Income Tax .. ..	371, 376	Botany Bay .. ..	1
Interest, Discount, etc. .. ..	371	Co-operative Societies .. ..	457
Land Tax .. ..	371, 374	Copper .. ..	495, 497, 505, 899
Marine .. ..	371	Employment in Mining .. ..	510, 526
Note Issue .. ..	371	Ingots, Exports .. ..	531
Other Sources .. ..	379	Local Extraction .. ..	530
Patents .. ..	371, 849	Metallic Contents of Ores Exported .. ..	530
Per Head of Population .. ..	371, 897	Prices .. ..	509
Postal .. ..	200, 379	Production .. ..	495, 497, 505, 507, 899
Railways .. ..	158, 379	In Various Countries .. ..	509
Sales Tax .. ..	371, 378	Sources of Production .. ..	506
Sources of .. ..	371	World's Production .. ..	509
Surplus .. ..	370	Copyright .. ..	850
Taxation .. ..	371, 374	Cornflour, Imports and Exports .. ..	581
War Time Profits Tax .. ..	371, 378	Corporations, Municipal, South Australia .. ..	90
Savings Bank .. ..	437, 438, 448	Cost of Living .. ..	704 to 713, 901
Serum Laboratories .. ..	313	Cotton .. ..	609
Sinking Fund, National Debt .. ..	396	Bounty .. ..	609, 611
Solar Observatory .. ..	854	Mills .. ..	691
Surplus Revenue .. ..	370	Council, Australian Loan .. ..	23, 434
Taxation .. ..	371, 429	Executive .. ..	11, 63
Territories .. ..	336	Scientific and Industrial Research .. ..	852
Trade Commissioners .. ..	228	Councils, District, South Australia .. ..	90
Trust Fund .. ..	388	Legislative .. ..	66
War Pensions .. ..	331, 401	Country Fire Brigades Board, Victoria .. ..	110
Companies .. ..	455	Of Embarkation and Destination, Oversea Migration .. ..	780
Building and Investment .. ..	456	Roads Board, Victoria .. ..	81
Co-operative .. ..	457	Court, High, of Australia .. ..	298
Fire Insurance .. ..	467	of Bankruptcy .. ..	298
Life Assurance .. ..	461	of Conciliation and Arbitration .. ..	299, 715, 725, 901
Marine Insurance .. ..	467	Courts, Children's .. ..	291
Trustees, Executors and Agency .. ..	455	Civil .. ..	296
Concentrated Milk (see Milk) .. ..	620 et seq.	Industrial and Arbitration .. ..	714
Concentrates, Metallic Contents of		Magistrates' .. ..	287, 296
Exports .. ..	530	Superior .. ..	293, 296
Zinc .. ..	495, 512, 530, 531	Crayfish .. ..	644
Conciliation Court, Commonwealth .. ..	299, 715, 725, 901	Crèches .. ..	321
Condensed Milk (see Milk) .. ..	620 et seq.		
Conditional Purchases of Freehold .. ..	120		
Confectionery Factories .. ..	684		
Congenital Debility, Deaths .. ..	837		
Conjugal Condition of Pensioners .. ..	399		
Of Persons at Marriage .. ..	806		
Of Population .. ..	776		

\* For Index to special articles and other matter in preceding Year Books, see page 939.



	PAGE
Diarrhoea, Infantile, Death Rates ..	815
Deaths .. ..	815, 834
Diatomaceous Earth .. ..	495, 496
Digestive System, Deaths .. ..	835
Diphtheria, Deaths .. ..	826
Discharged Soldiers, Advances to .. ..	130 to 132
Settlement .. ..	129, 333
Discovery of Australia .. ..	I
Of Gold .. ..	495, 498
Diseases, Cases Notified .. ..	312
Classification .. ..	820
Contagious .. ..	311
Infectious .. ..	311
Notifiable .. ..	312
Transmission by Mosquitoes ..	315
Tropical .. ..	314
Veneral .. ..	313
Disputes, Industrial .. ..	730 to 742
Dissolution, Federal Parliament ..	65, 71
Distilleries .. ..	689
District Councils, South Australia ..	90
Road Boards, Western Australia ..	92
Dividend Duties, Western Australia ..	414
Divorces .. ..	297
Dollar—Sterling Rates .. ..	448
Donkeys .. ..	339, 533
Drainage .. ..	96
Dressmaking Establishments .. ..	693
Dried Fruits .. ..	601, 606
Ottawa Conference Agreement .. ..	601
Drowning, Deaths .. ..	840
Drugs, Inspection and Sale .. ..	311
Drunkenness .. ..	289
Treatment of .. ..	291
Duties, Customs .. ..	220, 373
Dividend, Western Australia .. ..	414
Estate, Federal .. ..	375
Primage .. ..	222
Probate, States .. ..	412
Stamp, States .. ..	413
Succession, States .. ..	412
Dwellings .. ..	776

**E.**

Eastern Countries, Trade with .. ..	246
Extension Cable Company .. ..	211
Education .. ..	270
At Census of 1921 .. ..	281
Australian Council for Educational Research .. ..	270
Business Colleges and Shorthand Schools .. ..	281
Development .. ..	270
Diffusion .. ..	281
Distribution of Facilities .. ..	272
Expenditure .. ..	78, 274, 275, 280, 284
Free Kindergartens .. ..	277
Higher State Schools .. ..	273
Imperial Educational Conference ..	270
In Federal Capital Territory .. ..	271, 344

*Education—continued.*

	PAGE
In Nauru .. ..	366
In New Guinea .. ..	357
In Sparsely-settled Districts .. ..	272
Population .. ..	281, 776
Primary, State Schools .. ..	271
Private Schools .. ..	276
Retarded and Defective Children ..	272
Soldiers' Children .. ..	332
Systems, State .. ..	270
Technical .. ..	280
Training Colleges .. ..	273
Universities .. ..	272, 277
University Extension .. ..	279
Workers' Educational Association ..	279
Eggs and Poultry, Production .. ..	624
Egg Contents, Trade in .. ..	624
Elections .. ..	64 to 71, 76
Electricity, Deaths caused by .. ..	840
Electric Light and Power Works .. ..	696
Tramways .. ..	185 to 191
Electrification of Railways .. ..	179
Electrotyping Works .. ..	694
Emeralds .. ..	525
Employees, in Factories .. ..	652
Postal .. ..	200
Railways .. ..	161, 183
Employees' Associations .. ..	745
Employment .. ..	730
Coal Mining .. ..	522, 526
Copper Mining .. ..	510, 526
Fluctuations .. ..	743
Gold Mining .. ..	501, 526
Grade of, at Census, 1933 .. ..	776
In Factories .. ..	652
In Mining .. ..	526
Population .. ..	776
Seasonal .. ..	745
Silver Mining .. ..	505, 526
Tin Mining .. ..	512, 526
Enactments of Parliament .. ..	64, 74
Endeavour Trawling Ship .. ..	642, 647
Endowment, Child .. ..	729
Engineering Works .. ..	678
Ensilage .. ..	614
Enteritis, Infantile, Deaths .. ..	815, 834
Entertainments Tax .. ..	377, 411
Epidemic Diseases, Deaths .. ..	826
Epidemiological Bureau, Far Eastern ..	315
Estate Duty, Revenue .. ..	375
Estates of Deceased Persons .. ..	470
Intestate .. ..	470
Eucalyptus Oil .. ..	636
Eucla Artesian Basin .. ..	698
Evaporation .. ..	38
At the Capital Cities .. ..	54 to 61
Mean Annual .. ..	47
Mean Monthly .. ..	39, 46
Evening Schools .. ..	272
Exchange Rates .. ..	446 to 448

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Excise .. .. .	268	Factories— <i>continued.</i>	
Revenue .. .. .	372	Dairy .. .. .	617
Executions .. .. .	294	Defence .. .. .	329
Executive Council .. .. .	11, 63	Employment in .. .. .	652
Councillors .. .. .	72, 73	Females employed .. .. .	656, 657
Appointment .. .. .	63	Fuel and Light Used .. .. .	665
Government .. .. .	11, 62	Individual Industries .. .. .	673 to 697
Executors' Companies .. .. .	455	Land and Buildings Occupied .. .. .	669
Ex-nuptial Births .. .. .	792	Legislation .. .. .	656, 658, 660
Rates .. .. .	799	Males Employed .. .. .	656
Expectation of Life .. .. .	847	Masculinity of Employees .. .. .	657
Expenditure, Commonwealth (see		Materials Used .. .. .	665
Commonwealth Expenditure)	369, 380	Number .. .. .	648
Commonwealth and States	428, 897	Output .. .. .	666, 669
States (see State Expenditure)	416, 428	Outworkers .. .. .	655
Experimental Farms .. .. .	615	Plant and Machinery Used .. .. .	672
Exploration of Australia .. .. .	2	Power Used .. .. .	651, 665
Explosives, Factories .. .. .	329	Rates of Increase in Numbers of	
Exports, According to Industries	250, 260	Employees .. .. .	653
Australian Produce .. .. .	252	Ratio of Female Employment .. .. .	657
Classification .. .. .	230	Sex Distribution in .. .. .	656
Classified Summary .. .. .	252	Value of Output .. .. .	666, 669
Comparison with other		Of Production .. .. .	667
Countries .. .. .	262	Wages Paid .. .. .	661
Direction of .. .. .	237	Fares and Freights, Railways .. .. .	183
Graphs .. .. .	247 to 250	Farming, Bee .. .. .	625
In Calendar Years .. .. .	267	Farms, Experimental .. .. .	615
Merchandise .. .. .	234, 256, 267	Poultry .. .. .	623
Method of Recording .. .. .	229	Farmyard, Dairy and Bee Products	616
Percentages to Various Coun-		British Imports .. .. .	627
tries .. .. .	238	Exports .. .. .	627
Principal Commodities .. .. .	255	Ottawa Conference .. .. .	618
Pastoral Products .. .. .	255, 534	Value of Production .. .. .	626
Relative Importance of Indus-		Fathers, Ages .. .. .	800
trial Groups .. .. .	261	Birthplaces .. .. .	800
Ships' Stores .. .. .	258	Occupations .. .. .	801
Specie and Bullion .. .. .	256, 259, 267	Fauna, Australian .. .. .	36
States .. .. .	244	Northern Territory .. .. .	338
Statistical Classification .. .. .	230	Feathers, Undressed, Exports .. .. .	627
To Eastern Countries .. .. .	246, 251	Federal Capital Territory .. .. .	19, 342
Total .. .. .	231, 244, 253, 256, 267	Administration .. .. .	342
To Various Countries .. .. .	237, 240	Advisory Council .. .. .	342
Value of .. .. .	229	Climatological Data .. .. .	54
Exports and Production According		Commission .. .. .	342
to Industry .. .. .	261	Definition by Constitution .. .. .	18
Expropriation, New Guinea .. .. .	355	Diseases Notifiable .. .. .	312
Extension Lectures, University .. .. .	279	Dwellings .. .. .	776
		Education .. .. .	271, 344
		Expenditure .. .. .	345
		Finance .. .. .	345
		Forestry .. .. .	343
		Land Legislation .. .. .	113
		Tenure .. .. .	123, 343
		Leases, Sale of .. .. .	123, 343
		Live Stock .. .. .	344
		Police .. .. .	285
		Population .. .. .	344, 756, 788
		Progress of Work .. .. .	342
		Railways .. .. .	155, 344
		Rainfall .. .. .	41, 44, 54
		*Registration of Births, Deaths	
		and Marriages .. .. .	847

\* For Index to special articles and other matter in preceding Year Books, see page 939.



	PAGE		PAGE
Federal Capital Territory— <i>continued.</i>		Fisheries— <i>continued.</i>	
Revenue .. .. .	345	Papua .. .. .	351
Schools .. .. .	271, 320, 344	Pearl-shelling .. .. .	643, 645
Temperature .. .. .	53, 54	Persons employed .. .. .	644
Transfer of Parliament .. .. .	342	Revenue .. .. .	646
Transfer to Commonwealth .. .. .	2	Trawling .. .. .	647
Federal Elections .. .. .	65	Flannel, Production .. .. .	691
High Court .. .. .	298	Flax .. .. .	608
Ministries .. .. .	72, 867	Fleet, Australian.. .. .	327
Parliaments .. .. .	65, 71	Flights, Air Mail .. .. .	191
Railways .. .. .	154, 379, 387	Notable .. .. .	193
Referenda .. .. .	66	Flora, Australian .. .. .	36
Federated Trade Unions .. .. .	749	Northern Territory .. .. .	338
Employers' Associations .. .. .	751	Flotations of Loans—	
Federation of Australia .. .. .	1	Commonwealth .. .. .	390
Federations of Employers' Associa-		States .. .. .	424
tions .. .. .	751	Flour Exports .. .. .	255, 572
Feebleminded, Care of .. .. .	309	To Eastern Countries .. .. .	246
Female Employees in Factories .. .. .	656	Mills .. .. .	685
In Particular Industries .. .. .	657	Production .. .. .	685
Population .. .. .	756	Stocks of .. .. .	577
Ferries .. .. .	80	Food and Drugs, Inspection and Sale .. .. .	311
Fertilizers .. .. .	611	Food and Groceries, Price Index	
Exports and Imports .. .. .	612	Numbers .. .. .	704 to 713, 901
Legislation .. .. .	611	Forage, Green .. .. .	592
Local Production .. .. .	614	Forces, Expeditionary .. .. .	330
Quantity Used .. .. .	613	Air .. .. .	328
Film Censorship .. .. .	859	Land .. .. .	325
Films, Exports and Imports .. .. .	860	Military .. .. .	322 to 326
Finance, Commonwealth .. .. .	368, 428, 897	Naval .. .. .	326
Commonwealth and State .. .. .	408, 428	Forests, Forestry .. .. .	629
Local Government .. .. .	94	Activities of Commonwealth	
Municipal .. .. .	94	Government .. .. .	631
Private .. .. .	435, 898	Area of, Australian .. .. .	630
State .. .. .	408, 428, 897	Requisite Proportion .. .. .	631
Wheat Pools .. .. .	899	Reservations .. .. .	632
Financial Agreement, Commonwealth		Various Countries .. .. .	631
and States .. .. .	21, 380, 390, 423	Congresses .. .. .	634
Crisis .. .. .	884	Influence on Climate .. .. .	52
Emergency Act .. .. .	380	Rainfall .. .. .	52
Provisions of the Constitution .. .. .	14, 368	Extent of .. .. .	629
Fire Brigades .. .. .	80, 110	Nurseries and Plantations' .. .. .	633
Insurance .. .. .	465	Products, Papua .. .. .	351
First Offenders .. .. .	291	Production .. .. .	635
Fish .. .. .	642	Trade .. .. .	637
Consumption .. .. .	643	Sawmills .. .. .	635, 676
Economic Investigations .. .. .	642	School, Commonwealth .. .. .	634
Exports and Imports .. .. .	646, 647	Scientific Instruction .. .. .	634
Marketing and Transport .. .. .	642	State Departments .. .. .	632
Preserving, Bounties .. .. .	645	Persons Employed .. .. .	633
Works .. .. .	682	Revenue and Expenditure .. .. .	633
Stocks .. .. .	642	Foundation of Colonies, Dates .. .. .	1
Take, Quantity and Value .. .. .	644	Foundries .. .. .	678
Fisheries .. .. .	642	Franchise Qualifications, Federal 4 to 8, 64	
Bêche-de-mer .. .. .	643, 645	States .. .. .	64
Boats engaged .. .. .	644, 645	Free Goods, Imports .. .. .	256
Commonwealth Department .. .. .	647	Grants of Crown Lands .. .. .	110
New Guinea .. .. .	360	Freehold, Conditional Purchases .. .. .	127
Northern Territory .. .. .	339	Unconditional Purchases .. .. .	119
Oyster .. .. .	643, 644	Freight Rates, Railways .. .. .	183
		Shipping .. .. .	149
		Fremantle Harbour Trust.. .. .	108

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Friendly Societies .. ..	468	Gold— <i>continued.</i>	
Fruit .. ..	602	Papua .. ..	352
Gardens, Area .. ..	602	Price of .. ..	405
Dried .. ..	601, 606	Production .. 495, 497, 498, 507, 899	
Exports and Imports ..	605	In Various Countries ..	500
Preserved .. ..	606, 684	Relative Positions of States ..	499
Preserving Factories ..	683	Received at Mints .. ..	403
Production .. ..	603	World's Production .. ..	499
Varieties .. ..	603	Goldfields Water Supply, Western	
Fuel used in Factories ..	665	Australia .. ..	105
Used by Railways .. ..	184	Goods Rates, Railways .. ..	183
Funds, Consolidated Revenue		Tonnage Carried, Railways	
Federal .. ..	369, 380, 897	160, 173, 178, 179	
States .. ..	408, 897	Gout, Deaths .. ..	833
Friendly Societies .. ..	470	Government, Commonwealth ..	65, 72
Loan, Federal .. ..	388, 897	Executive .. ..	11, 62
States .. ..	419	General .. ..	62, 77, 867
Patriotic .. ..	301	Local .. ..	80
Sinking, Federal .. ..	28, 396	Parliamentary, Cost .. ..	75
States .. ..	427	Scheme of .. ..	62
Trust, Federal .. ..	388	Roads, Bridges, &c. .. ..	80
States .. ..	419	Services, Cost of Principal ..	77
Furniture-making Factories ..	696	Governor-General, Establishment,	
		Expenditure .. ..	75, 381
<b>G.</b>		Powers and Functions .. ..	4, 62
Galleries, Public Art .. ..	284	Governors-General .. ..	62, 72
Gaols .. ..	294, 299	Governors, State .. ..	62, 75
Gardens, Fruit .. ..	602	Powers and Functions .. ..	62
Market .. ..	607	Grafton—South Brisbane Railway ..	150
Gas Production .. ..	697	Grain Milling—	
Works .. ..	697	Mills .. ..	685
Gauge, Railways .. ..	152, 167	Production .. ..	685
Tramways .. ..	186	Grants, Free, of Crown Lands ..	117
Unification .. ..	150, 326	Grapes .. ..	600
Geelong Harbour Trust .. ..	107	Graphs (see Special Index) .. ..	937
Waterworks and Sewerage Trust	101	Grasses, Artificially Sown .. ..	562
Gems .. ..	525	Grass Seed .. ..	607
General Government .. ..	62, 75	Gratuity, War .. ..	330
Insurance .. ..	459	Greasy and Scoured Wool .. ..	534, 552
Genito-Urinary System, Deaths ..	836	Great Australian Artesian Basin ..	698
Geographical Features of Australia ..	36	Green Forage, Area and Value ..	592
Position of Australia .. ..	33	Guano Imports .. ..	612
Geology of Australia .. ..	36	Gulf Artesian Basin .. ..	698
Gladstone Harbour Board .. ..	108	Gypsum .. ..	495
Glennel Sewerage .. ..	105	<b>H.</b>	
Glue Pieces, Net Exports .. ..	534	Habitual Offenders .. ..	294
Glycerine, Net Exports .. ..	534	Hæmorrhage, Cerebral, Deaths ..	833
Goats in Australia .. ..	533	Hail .. ..	51
New Guinea .. ..	360	Hair, Net Exports .. ..	534
Northern Territory .. ..	339	Half-castes .. ..	309, 788
Papua .. ..	351	Ham (see Bacon and Ham).	
Gold .. ..	495, 497, 498, 899	Harbour Boards and Trusts .. ..	106 to 110
Bounty .. ..	501, 528, 611	Harbours .. ..	80, 106, 150
Discovery .. ..	495, 498	Harvester Judgment .. ..	725
Employment in Mining .. ..	501, 526	All Items index ("D" series) ..	727
Exports and Imports, Specie and		Hay .. ..	589
Bullion .. ..	259	Area and Average Yield .. 567, 589, 590	
Exports—Bar, Dust, &c. ..	531	Exports and Imports .. ..	591
Issued at Mints .. ..	404	Production .. ..	568, 589
Mining Leases .. ..	126 to 128	In Various Countries .. ..	591
New Guinea .. ..	360	Value of Crop .. ..	592
Northern Territory .. ..	339	Varieties Grown .. ..	590

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Health .. .. .	311	Hospitals .. .. .	301
Administration .. .. .	311	Accommodation .. .. .	302
Commonwealth Department .. .. .	385	Admissions .. .. .	302
Centres, Baby .. .. .	320	Expenditure .. .. .	78, 303
Conference, International Pacific .. .. .	315	For General Cases .. .. .	302
Laboratories .. .. .	314	For Insane Persons .. .. .	305
Legislation .. .. .	311	For Lepers .. .. .	305
Local Boards, Western Australia .. .. .	93	Patients Treated .. .. .	302
Royal Commission on .. .. .	315	Revenue .. .. .	303
School Children .. .. .	316	Staffs .. .. .	302
School of Public .. .. .	315	Travelling, for Schools .. .. .	316
Heart, Organic Diseases, Deaths .. .. .	833	Hourly Rates of Wage .. .. .	719
Heat Excessive, Deaths .. .. .	840	Hours of Labour .. .. .	715
Waves .. .. .	48	Household Expenditure in Capital Cities .. .. .	708
Hernia, Deaths .. .. .	835	House of Representatives, Federal (see Representatives, Federal House of) .. .. .	6
Hides and Skins, Trade in .. .. .	559	House Rents .. .. .	704 to 713, 901
Net Exports .. .. .	534	Index Numbers .. .. .	704 to 713, 901
Used in Tanneries .. .. .	674	Humane Society, Royal .. .. .	309
High Commissioner, London .. .. .	867	Humidity .. .. .	38
Court, Transactions .. .. .	299	At the Several Capital Cities .. .. .	54 to 61
Schools .. .. .	273	Monthly Maximum and Minimum .. .. .	45
Agricultural .. .. .	273	Hunter District Water Supply and Sewerage Board .. .. .	96
Highways Act, South Australia .. .. .	82	Hygiene, Industrial .. .. .	314
Tasmania .. .. .	83	Public .. .. .	311
Hindus in Australia .. .. .	776	Veterinary .. .. .	314
Hives .. .. .	625		
Hobart, Fire Brigade Board .. .. .	111	I.	
Marine Board .. .. .	109	Ice Cream Factories .. .. .	684
Municipal Tramways .. .. .	190	Illegitimacy (see Ex-nuptial) .. .. .	792
Sewerage .. .. .	106	Illiteracy, at Census Periods .. .. .	281
Water Supply .. .. .	106	At Marriage .. .. .	281
Holdings, Land, Classification of .. .. .	137	Immigrant Races .. .. .	776
Homes, Benevolent .. .. .	303	Immigrants, Admitted without Test .. .. .	786
War Service .. .. .	335	Alien .. .. .	785
Homicides .. .. .	840	Assisted .. .. .	784
Honey .. .. .	625	Length of Residence .. .. .	776
Average Production per Hive .. .. .	625	Undesirable .. .. .	785
Exports and Imports .. .. .	626, 627	Immigration .. .. .	784
Production .. .. .	625	Agreement with British Govern-ment .. .. .	784
Hoofs, Net Exports .. .. .	534	Assisted Passages .. .. .	784
Hookworm .. .. .	315	Conditions of, into Australia .. .. .	785
Hops .. .. .	608	Joint Commonwealth and State Scheme .. .. .	784
Used in Breweries .. .. .	688	Legislation .. .. .	785
Horns, Net Exports .. .. .	534	Net .. .. .	769, 773
Horses .. .. .	532, 536, 541	Powers of Commonwealth .. .. .	785
Exports .. .. .	538	Regulation .. .. .	785
To Eastern Countries .. .. .	246	Restriction .. .. .	785
Imports .. .. .	538	Sexes and Industrial Groups .. .. .	785
In Federal Capital Territory .. .. .	344	Imperial and International Com-munications Ltd. .. .. .	211
„ New Guinea .. .. .	360	Educational Conference .. .. .	270
„ Norfolk Island .. .. .	347	Forces, Australian .. .. .	330
„ Northern Territory .. .. .	339	War Loan .. .. .	390
„ Papua .. .. .	351	Implement Factories .. .. .	677
„ Various Countries .. .. .	537		
Net Exports .. .. .	534		
Percentage in each State .. .. .	537		
Per Head of Population .. .. .	533, 537		
Per Square Mile .. .. .	533		
World's Total .. .. .	537		
Horse Tramways .. .. .	186		
Hosiery Mills .. .. .	691		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Imports .. .. .	229	Influenza, Deaths .. .. .	826
According to Country of Origin		Insane, Hospitals for .. .. .	305
235, 239, 263	263	Persons in Institutions .. .. .	306
According to Tariff Divisions .. .. .	256	Insanity .. .. .	308
Classification .. .. .	230	Deaths .. .. .	306, 833
Classified Summary .. .. .	252	Insolvencies .. .. .	297
Comparison with Other Countries	262	Institute of Anatomy .. .. .	853
Dutiable Goods .. .. .	256	Tropical Medicine .. .. .	315
Free Goods .. .. .	256	Instruction, Public (see Education)	270
From Eastern Countries .. .. .	251	Insurance .. .. .	459
From Various Countries 235, 239, 263	263	Insurance, Fire, Marine, and General	465
Graphs .. .. .	247 to 250	Life .. .. .	461 to 465
In Calendar Years .. .. .	267	Interest, Commonwealth, Revenue	
Merchandise .. .. .	234, 256, 267	from .. .. .	379
Method of Recording .. .. .	229	Payable on Commonwealth Debt	393
Percentage from Countries of		Payable on Commonwealth and	
Origin .. .. .	235	State Debts .. .. .	433
Principal Commodities .. .. .	254	Rates on Commonwealth Debt	393
Specie and Bullion .. .. .	256, 259, 267	Rates on State Debts .. .. .	424
States .. .. .	244	Reduction .. .. .	380, 892
Statistical Classification .. .. .	230	Savings Banks Rates .. .. .	450
Total .. .. .	231, 244, 252, 256, 267	State Debts .. .. .	424
Value .. .. .	229	State Railways Loan Expendi- ture .. .. .	177
Improvement Purchases, New South		Interior, Department of—	
Wales .. .. .	119	Establishment .. .. .	342
Income Tax, Commonwealth .. .. .	376	Expenditure .. .. .	383
States .. .. .	411, 414	International Payments, Balance of	
Indebtedness, International, Balance		of .. .. .	234, 873
of .. .. .	878	Indebtedness .. .. .	878
Per Head, Commonwealth .. .. .	391	Radio Traffic .. .. .	218
States .. .. .	423	Wireless Telephone Service .. .. .	217
Index-Numbers, Food, Groceries and		Interstate, Commission .. .. .	16
Housing .. .. .	704 to 713, 901	Communication by Railway .. .. .	151
Hours of Labour .. .. .	722	Employers' Associations .. .. .	752
Nominal Wage .. .. .	722 to 729	Exchange Rate .. .. .	448
Production, Real .. .. .	857, 858	Shipping .. .. .	144
Real Wage .. .. .	722 to 725, 735	Services .. .. .	148
Retail Prices .. .. .	704 to 713, 901	System of Record .. .. .	144
Wage Variations .. .. .	714 to 729	Trade .. .. .	269
Wholesale Prices .. .. .	703, 735	Unions .. .. .	748
Index of Mortality .. .. .	810	Intestate Estates .. .. .	470
Industrial Agreements .. .. .	714	Intestinal Obstruction, Deaths .. .. .	835
Arbitration Acts .. .. .	714, 745	Intoxicants, Consumption per Head	290
Assurance .. .. .	461 to 465	Intoxication .. .. .	289
Awards .. .. .	714	Invalid Pensions.. .. .	397
Determinations .. .. .	714	Investment Societies .. .. .	456
Disputes .. .. .	731 to 742	Iridium .. .. .	501
Hygiene .. .. .	314	Iridosmine .. .. .	501
Production .. .. .	667	Iron .. .. .	495, 497, 507, 513, 899
Research, Council for .. .. .	852	Bounties .. .. .	514, 610
Schools .. .. .	304	Ore .. .. .	514
Unions (see Trade Unions) .. .. .	745	Oxide .. .. .	495, 514
Industries Preservation Act .. .. .	227	Pig .. .. .	495, 514
Infantile Death Rates 320, 811 to 816	816	Production .. .. .	495, 497, 507, 513, 899
Deaths .. .. .	320, 814, 817	World's Production .. .. .	514
Diarrhœa, Deaths .. .. .	815, 834	Ironstone, Production .. .. .	495, 514
Enteritis, Deaths .. .. .	815, 834	Ironworks, Smelting, etc... .. .	678
Mortality .. .. .	320, 811	Irrigation .. .. .	699
Infant Life Supervision .. .. .	320	Issue of Deceased Married Persons	845
Infectious Diseases .. .. .	311	of Mothers .. .. .	802
Cases Notified, Each State	312		
Deaths .. .. .	826, 841		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

PAGE	PAGE
<b>J.</b>	
Jam Factories .. .. .	683
Production .. .. .	684
Jams and Jellies, Trade in .. .. .	606
Japanese in Australia .. .. .	776
Jervis Bay, Lands .. .. .	344
Joineries .. .. .	676
Judicature, Commonwealth .. .. .	12
Judicial Separations .. .. .	297
Justice, Public .. .. .	285
Expenditure, Federal States .. .. .	300
States .. .. .	299
<b>K.</b>	
Kalgoorlie and Boulder Electric Tramways .. .. .	189
Kalgoorlie-Port Augusta Railway .. .. .	155
Kanakas .. .. .	788
Kaolin .. .. .	495
Kerosene Shale .. .. .	523
Kindergartens .. .. .	277
Knitting Mills .. .. .	691
<b>L.</b>	
Laboratories, Commonwealth Serum Health .. .. .	313
Health .. .. .	314
Labour, Hours .. .. .	715
Legislation .. .. .	750
Organization, Central Organizations .. .. .	749
Wages and Prices .. .. .	745
Wages and Prices .. .. .	703
Lamb (see Mutton) .. .. .	534
Land, Forces (Military) .. .. .	534
Irrigated .. .. .	325
Legislation .. .. .	700
Occupied as Factories Settlement .. .. .	112, 333
Present Position .. .. .	137
Tax, Commonwealth States .. .. .	374
Tenure .. .. .	413
By Aliens .. .. .	112, 139
By Aliens .. .. .	130
Landing Grounds, Aviation .. .. .	191
Lard .. .. .	622, 626, 627, 681
Launceston Marine Board .. .. .	109
Municipal Tramways .. .. .	190
Lazarets .. .. .	305
Lead .. .. .	495, 502, 507, 899
Concentrates Exported from New South Wales .. .. .	503
Employment in Mining .. .. .	505, 526
Exports .. .. .	531
To Eastern Countries .. .. .	246
Local Extraction .. .. .	530
Metallic Contents of Ores Exported .. .. .	530
Production .. .. .	495, 502, 899
In New South Wales .. .. .	503
League of Nations .. .. .	861
Leases, Purchases of, Under Land Acts .. .. .	121 to 123
Under Mining Acts .. .. .	126 to 128
Leather, Production .. .. .	674
Exports to Eastern Countries .. .. .	246
Legal Tender Extant—Australia .. .. .	407
Legislation, Affecting Foreign Trade .. .. .	220, 227
Affecting Labour .. .. .	750
Banking .. .. .	435
Bankruptcy .. .. .	297
Copyright .. .. .	850
Course of Commonwealth .. .. .	74
During year .. .. .	74
Factory .. .. .	656, 658, 660, 750
Health .. .. .	311
Immigration .. .. .	785
Land .. .. .	112
Life Assurance .. .. .	459
Marketing of Australian Commodities .. .. .	860
Naturalization .. .. .	787
New Guinea .. .. .	355
Northern Territory .. .. .	337
Ottawa Conference .. .. .	868
Relief of Unemployment .. .. .	745
Shipping .. .. .	150
Special Defence .. .. .	330
Legislative Assemblies .. .. .	66 to 71
Councils .. .. .	66 to 71
Powers Referenda .. .. .	66
Lemons .. .. .	603
Lepers .. .. .	305
Letters of Administration .. .. .	470
Letter-Telegrams .. .. .	210
Liabilities, Banks .. .. .	439 to 442
Libraries, Public .. .. .	282
Commonwealth Parliamentary and National .. .. .	283
Library, Mitchell .. .. .	283
Patents Office .. .. .	284
Licences, Motor .. .. .	197
Reduction .. .. .	851
Under Land Acts .. .. .	121 to 124
Under Mining Acts .. .. .	126 to 128
Wireless .. .. .	216
Life, Assurance .. .. .	461
Companies .. .. .	461
Assets .. .. .	464
Business .. .. .	461
Expenditure .. .. .	462, 463
Liabilities .. .. .	463
Policies Issued and Discontinued .. .. .	464, 465
Receipts .. .. .	462
Expectation of .. .. .	847
Saving Society, Royal Tables .. .. .	309
Tables .. .. .	847
Lighthouses .. .. .	149
Lightning at Capital Towns .. .. .	54 to 61
Light, Power, etc., Used in Factories .. .. .	665

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Lignite (see Brown Coal)	495, 515 to 519		
Limestone Flux .. .. .	495		
Linnean Society of New South Wales	282		
Liquid Assets (Banks)			
Percentage on Liabilities "at call"	.. .. . 443		
Liquor Referenda .. .. .	851		
Liver and Biliary Calculi, Deaths ..	835		
Live Stock .. .. .	532, 541		
Fluctuations .. .. .	532, 541		
In Australia .. .. .	532, 541		
In Federal Capital Territory .. .. .	344		
In New Guinea .. .. .	360		
In Norfolk Island .. .. .	347		
In Northern Territory .. .. .	339		
In Papua .. .. .	351		
In Relation to Area .. .. .	533		
In Relation to Population .. .. .	533		
Minor Classes .. .. .	533		
Living, Cost of .. .. .	704 to 713, 901		
Loan, Council, Australian	23, 434		
Expenditure, Commonwealth	389		
States .. .. .	419, 897		
Per Head of Population	421		
Railways .. .. .	170		
Roads and Bridges .. .. .	83		
Funds, Commonwealth	388, 897		
States .. .. .	419		
Loans, Australian War .. .. .	390		
Commonwealth	388, 391, 430, 897		
Raised on behalf of States .. .. .	391		
Flotations .. .. .	390, 392, 424		
Imperial War .. .. .	390		
Local Government .. .. .	96		
Northern Territory .. .. .	341		
Places of Flotation .. .. .	392, 424, 897		
State .. .. .	422, 430, 897		
States for Soldier Land Settlement .. .. .	391		
Taken over from South Australia	388		
To Settlers .. .. .	130		
Lobsters .. .. .	644		
Local Authorities, South Australia ..	90		
Boards of Health, Western Australia .. .. .	93		
Local Government .. .. .	80		
Finance .. .. .	94		
Loans .. .. .	96		
Valuations .. .. .	84 to 94		
Local Option .. .. .	851		
Locomotor Ataxy, Deaths .. .. .	833		
Lodges (see Friendly Societies) .. ..	468		
Lord Howe Island .. .. .	851		
Lower (Magistrates') Courts .. .. .	287		
Civil Cases .. .. .	296		
Convictions and Committals .. .. .	287, 288, 291		
Criminal Cases .. .. .	288		
Persons Charged .. .. .	287		
Lunatic Asylums .. .. .	305		
Lyons Government .. .. .	72, 867		
		<b>M.</b>	
		Machinery Used in Factories .. .. .	672
		Mackay Harbour Board .. .. .	108
		Magistrates' Courts (see Lower Courts) .. .. .	287, 296
		Powers .. .. .	287
		Magnesite .. .. .	495
		Mail Contractors .. .. .	200
		Services, Aerial .. .. .	192
		Sea-borne .. .. .	205
		Subsidies .. .. .	205
		Main Roads Board, Queensland .. .. .	81
		Fund, South Australia	82
		Maize .. .. .	580
		Area under .. .. .	562, 567, 580
		Average yield per acre .. .. .	580
		In various Countries .. .. .	580
		Exports and Imports .. .. .	580
		Prepared .. .. .	580
		Price .. .. .	581
		Production .. .. .	568, 580
		World's .. .. .	581
		Value of Crop .. .. .	582
		Malaria .. .. .	315
		Deaths .. .. .	829
		Malays in Australia .. .. .	776
		Male Population .. .. .	756
		Workers in Factories .. .. .	656
		Malformations, Deaths .. .. .	837
		Malignant Tumours, Deaths .. .. .	829
		Malt, Exports and Imports .. .. .	585
		Used in Breweries .. .. .	688
		Distilleries .. .. .	689
		Malting Barley .. .. .	583, 585
		Mandate, New Guinea .. .. .	355
		Manganese .. .. .	495
		Mangolds .. .. .	589
		Manufacturing Industry (see Factories) .. .. .	648
		Manures (see Fertilizers) .. .. .	611
		Marconi Wireless Company .. .. .	211
		Marine Boards .. .. .	106
		Burnie .. .. .	110
		Casualties .. .. .	149
		Hobart .. .. .	109
		Insurance .. .. .	467
		Launceston .. .. .	109
		Revenue .. .. .	371
		Market Gardens .. .. .	607
		Marketing of Australian Commodities	860
		Marriage, Marriages .. .. .	794, 805
		Ages at .. .. .	806
		Birthplaces of Persons Married	808
		Conjugal Condition of Persons at Marriage .. .. .	806
		Duration and Issue .. .. .	802
		Fertility .. .. .	809
		In each Denomination .. .. .	809
		Interval between, and First Birth .. .. .	804

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Marriage— <i>continued.</i>		Metropolitan—Fire Brigade Board,	
Mark Signatures .. .. .	281	Victoria .. .. .	110
Occupations of Bridegrooms .. .. .	808	Population .. .. .	765
Rates .. .. . 796, 805, 806	806	In Various Countries .. .. .	765
In Various Countries .. .. .	806	Sewage Farm, Victoria .. .. .	100
Registration .. .. .	809, 847	Water, Sewerage and Drainage	
Masculinity of Births .. .. .	791	Board, Sydney .. .. .	97
Various Countries .. .. .	792	Migration Agreement .. .. .	784
Employees in Factories .. .. .	656	Migration, Oversea .. .. .	779
Pensioners .. .. .	399	Arrivals and Departures .. .. .	779
Population .. .. .	762, 775	Classes of Arrivals and De-	
Various Countries .. .. .	775	partures .. .. .	781
Materials used in Factories .. .. .	665	Ages .. .. .	782
Maternity Allowance .. .. .	400	Nationality or Race .. .. .	782
Maturity of Loans, Federal	395, 430	Occupations .. .. .	783
States .. .. .	426, 430	Persons Intending Per-	
Mean Population .. .. .	761	manent Residence .. .. .	781, 782
Measles, Deaths .. .. .	826	Country of Embarkation and	
Meat, Agreements at Ottawa		Destination .. .. .	780
Conference .. .. .	544	Nationality or Race .. .. .	780
Preserving Works .. .. .	682	Net Gain or Loss .. .. .	779, 781
Northern Territory .. .. .	338	Migratory Population .. .. .	762
Meats Preserved or Frozen, Exports		Mileage of Railways .. .. .	151
255, 544, 549, 627	627	Federal .. .. .	156
Net Exports .. .. .	534	Private .. .. .	185
Per Capita Consumption, Aus-		State .. .. .	162
tralia and Other Countries .. .. .	535	of Tramways .. .. .	186
Mechanical Power used in Factories	651	Military Administration .. .. .	326
Medical Inspection—School Children	316	College .. .. .	326
Treatment, Soldiers .. .. .	332	Defence .. .. .	322
Melbourne and Metropolitan Board		Forces .. .. . 322 to 326	
of Works .. .. .	99	Citizen .. .. .	325
Melbourne and Metropolitan Tram-		Classification .. .. .	325
ways Board .. .. .	188	Militia .. .. .	325
Melbourne Cable Tramways	188	Strength .. .. .	323
Electric Tramways .. .. .	188	Instruction Staff .. .. .	326
Harbour Trust .. .. .	107	Population .. .. .	322
Sewerage .. .. .	100	Systems .. .. .	322
University .. .. .	277	Training .. .. .	322
Water Supply .. .. .	99	Milk .. .. .	618
Melons .. .. .	608	Concentrated and Condensed	
Members of Cabinet, Federal	72, 867	62c, 623, 627, 681	
States .. .. .	73	Exports and Imports .. .. .	620
Of Parliament .. .. .	64	Factories .. .. .	617, 681
Qualifications .. .. .	4 to 8, 64	Imports into United King-	
Salaries .. .. .	64	dom .. .. .	627
Meningitis, Deaths .. .. .	829, 842	Exports to Eastern Countries .. .. .	246
Merchandise, Imports and Exports	256	Production .. .. .	618, 622
Metal Extraction Works .. .. .	680	Per Dairy Cow .. .. .	618
Metallic Contents of Ores Produced		Supervision of Supply .. .. .	616
and Exported .. .. .	530	Used in Factories .. .. .	682
Metallurgical Works .. .. .	680	Millet .. .. .	609
Metals—		Millinery Establishments .. .. .	693
Exports of Ores, etc. .. .. .	530	Mills, Cotton .. .. .	691
Local Extraction .. .. .	530	Flour .. .. .	685
Platinum and Platinoid .. .. .	501	Saw .. .. .	635, 676
Meteoritic Waters .. .. .	699	Sugar .. .. .	686
Meteorological Divisions .. .. .	36	Tweed .. .. .	690
Publications .. .. .	36	Woollen .. .. .	690
Meteorology of Australia .. .. .	36		

\* For Index to special articles and other matter in preceding Year Books, see page 939.





	PAGE		PAGE
Neglected Children ..	304, 321	Norfolk Island— <i>continued.</i>	
Nephritis, Deaths ..	835	Exports ..	347
Newcastle, Sewerage ..	98	Imports ..	347
Water Supply ..	97	Live Stock ..	347
New Guinea, Territory of ..	354	Location ..	346
Act ..	355	Population ..	347, 788
Agriculture ..	358	Production ..	347
Area ..	354	Revenue ..	348
Australian Military Occupation ..	355	Settlement ..	346
Aviation ..	195, 363	Social Condition ..	348
Banks ..	362	Trade ..	347
Bounties ..	611	Transfer to Commonwealth ..	2, 346
British (see Papua) ..	348	Northern Territory ..	336
Civil Government ..	355	Aboriginals ..	337
Climate ..	354	Administration ..	337
Communications ..	363	Advances to Settlers ..	132
Departments and Districts ..	355	Agriculture ..	338
Dwellings ..	776	Area ..	336
Expenditure ..	364	Artesian Water ..	698
Exports ..	361	Climate ..	338
Expropriation ..	355	Debt ..	341
Fisheries ..	360	Dwellings ..	776
Imports ..	361	Education ..	271
Islands ..	354	Expenditure ..	341
Land Policy ..	358	Exports ..	340
Legislation ..	355	Fauna ..	338
Legislative Council ..	355	Finance ..	341
Live Stock ..	360	Fisheries ..	339
Mandate ..	355	Flora ..	338
Military Occupation ..	355	Holdings ..	338
Mining ..	360	Imports ..	340
Natives ..	356	Land Legislation ..	113
Description ..	356	Land Tenure ..	118, 123, 136, 339
Education ..	357	Legislation ..	337
Health ..	357	Live Stock ..	338
Land Tenure ..	357	Loans ..	341
Missions ..	358	Meat Preserving Works ..	338
Research ..	357	Migration ..	336
Physiography ..	354	Mining ..	128, 339
Plantations ..	359	Pastoral Industry ..	338
Population ..	356, 788	Physiography ..	337
Preference ..	224	Police ..	285
Production ..	358	Population ..	336, 756, 788
Registration of Titles ..	358	Postal Services ..	341
Reports to League of Nations ..	355	Production ..	338
Revenue ..	364	Railways ..	154, 340
Shipping ..	362	Revenue ..	341
Statute Law ..	355	Shipping ..	340
Timber ..	360	Telegraphs ..	341
Trade ..	361	Trade, Oversea ..	340
New Zealand Preference ..	224	Transfer to Commonwealth ..	1
Night Letter Cable Service ..	213	Notes, Australian ..	406
Nominated Immigrants ..	784	Postal ..	206
Non-European Races in Australia ..	776	Issue ..	406
Departures of ..	786	Notifiable Diseases ..	312
Immigration of ..	785	Nuptial Birth Rate ..	799
Norfolk Island ..	346	Nurseries, Agricultural ..	609
Administration ..	347	Sylvicultural ..	633
Area ..	346	Nursing Activities ..	321
Dwellings ..	788	Nuts ..	603
Expenditure ..	348		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
<b>O.</b>		Papua .. .. .	348
Oatmeal .. .. .	579	Administration .. .. .	348
Oats .. .. .	577	Agriculture .. .. .	350
Area under Crop .. .. .	567, 578	Area .. .. .	348
Average Yield per acre .. .. .	578	Bounties .. .. .	611
Exports and Imports .. .. .	579	Dwellings .. .. .	788
Prices .. .. .	579	Expenditure .. .. .	352
Production .. .. .	568, 578	Exports .. .. .	353
World's .. .. .	579	Fisheries .. .. .	351
Value of Crop .. .. .	579	Forestry .. .. .	351
Observatory, Solar, Canberra .. .. .	854	Geographical Position .. .. .	348
Occupations, of Bridgrooms .. .. .	808	Half-caste Children .. .. .	349
Of Deceased Males .. .. .	820	Health .. .. .	350
Of Deceased Married Males .. .. .	847	Holdings .. .. .	350
Of Fathers .. .. .	801	Imports .. .. .	353
Of Males who Committed Suicide .. .. .	839	Land Tenure .. .. .	350
Of Males who died from Cancer .. .. .	831	Leasehold .. .. .	350
Of Males who died from Tuberculosis .. .. .	827	Live Stock .. .. .	351
Of Permanent new Arrivals or Permanent Departures .. .. .	783	Mining .. .. .	352
Of Population .. .. .	776	Native Labour .. .. .	349
Ocean Island, Phosphate Deposits .. .. .	366	Taxes .. .. .	349
Offenders, First .. .. .	291	Wages .. .. .	349
Habitual .. .. .	294	Plantations .. .. .	351
Oil, Eucalyptus .. .. .	636	Population .. .. .	349, 788
Mineral .. .. .	523, 899	Preference Act .. .. .	224
Mining Leases .. .. .	126 to 128	Production .. .. .	350
Shale .. .. .	495, 523, 899	Progress .. .. .	354
Used by Railways .. .. .	184	Rainfall .. .. .	350
Old-age Pensions .. .. .	397	Revenue .. .. .	352
Omnibuses, Motor .. .. .	196	Shipping .. .. .	353
Onions .. .. .	589	Soil .. .. .	350
Opal .. .. .	496, 525	Statistical Summary .. .. .	354
Oranges .. .. .	603	Transfer to Commonwealth .. .. .	2, 348
Orchards (see Fruit Gardens) .. .. .	602	Water Power .. .. .	352
Ore Reduction Works .. .. .	680	Paralysis of the Insane, Deaths .. .. .	833
Ores, Estimated Metallic Contents of, Exported .. .. .	530	Parents, Ages .. .. .	800
Exports .. .. .	531	Birthplaces .. .. .	800
Orphanages .. .. .	304	Parliament .. .. .	64
Osmiridium .. .. .	495, 502	Elections .. .. .	64 to 71, 76
Osmium .. .. .	501	Enactments of .. .. .	64, 74
Exports .. .. .	531	Federal .. .. .	4, 65, 71
Ostriches .. .. .	533	Dissolution .. .. .	65, 71
Ottawa Conference Agreements <i>re</i> .. .. .		Powers .. .. .	9
Australian Products 224, 226, 544, 549, 599, 601, 618, 868 .. .. .		Members .. .. .	64
Output of Factories .. .. .	666, 669	Salaries .. .. .	64
Outworkers .. .. .	655	Transfer to Canberra .. .. .	65, 342
Oversea Migration .. .. .	779 to 783	New South Wales .. .. .	66
Shipping .. .. .	140	Victoria .. .. .	67
Trade .. .. .	220, 231	Queensland .. .. .	68
Oxide, Iron .. .. .	495, 514	South Australia .. .. .	69
Oyster Fisheries .. .. .	643, 644	Western Australia .. .. .	69
		Tasmania .. .. .	70
<b>P.</b>		Parliamentary Government, Cost .. .. .	75, 381
Pacific Cable Board .. .. .	211	Scheme of .. .. .	62
International Health Conference .. .. .	315	Library .. .. .	283
Islanders in Australia .. .. .	788	Parliaments, Federal .. .. .	65, 71
		Passages, Assisted .. .. .	784
		Passenger Journeys, Railways .. .. .	160, 178
		Mileage, Railways .. .. .	160, 181
		Traffic and Receipts, State Railways .. .. .	178
		Passengers, Tramway .. .. .	187 to 191

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Passports .. ..	787	Plantations, Forest .. ..	633
Pastoral Leases .. ..	121 to 124	New Guinea .. ..	359
Production .. ..	532	Papua .. ..	351
Value of .. ..	535	Plant, Quarantine .. ..	314
Patents .. ..	849	Used in Factories .. ..	672
Office Library .. ..	284	Platinoid Metals .. ..	501
Revenue .. ..	371, 849	Platinum .. ..	495, 501
Patients, in General Hospitals .. ..	302	Exports .. ..	531
In Hospitals for the Insane .. ..	306	Plums .. ..	603
Patriotic Funds .. ..	301	Plutonic Waters .. ..	699
Payments to or for the States .. ..	388	Plywood Mills .. ..	676
Peaches .. ..	603	Pneumonia, Deaths .. ..	834
Pearl Barley, Exports .. ..	585	Poison, Deaths .. ..	840
Pearls .. ..	643, 645	Sale and Custody .. ..	311
Pearl-shell Fisheries .. ..	643, 645	Police Conferences .. ..	286
Northern Territory .. ..	339	Forces .. ..	285
Pearl-shelling Commission .. ..	643	Cost .. ..	286
Pears .. ..	603	Duties .. ..	286
Peas .. ..	586	Strength .. ..	285
Pensioners, Invalid .. ..	397	Pollard .. ..	686
Old-age .. ..	397	Pools, Wheat .. ..	577, 899
War .. ..	331, 401	Population .. ..	753
Pensions, Cost of Administration .. ..	400, 402	Aboriginal .. ..	309, 337, 788
Invalid .. ..	397	Age Distribution .. ..	775
Old-age .. ..	397	British Empire .. ..	774
War .. ..	331, 401	Censuses .. ..	753
Perth, Electric Tramways .. ..	189	Characteristics .. ..	775
Sewerage .. ..	105	Chinese .. ..	788
Water Supply .. ..	105	Conjugal Condition .. ..	776
Petroleum .. ..	523, 528	Density .. ..	762, 774
Imports .. ..	254	In Various Countries .. ..	774
Permits, Queensland .. ..	127	Distribution .. ..	755, 760, 773
Quantity on which Excise Duty .. ..	268	Education .. ..	281, 776
was paid .. ..	268	Employment, Grade of .. ..	776
Phonogram Service .. ..	209	Estimated at 31st December, .. ..	756
Phosphate, Rock .. ..	495	1932 .. ..	753, 756
Exports and Imports .. ..	612	Estimates .. ..	344, 756, 788
Nauru .. ..	366	Fed. Capital Territory .. ..	756
Physiography, Australia .. ..	33	Female .. ..	755
New Guinea .. ..	354	Fluctuation .. ..	755
Northern Territory .. ..	337	Growth .. ..	776
Papua .. ..	348	Immigrant Races .. ..	754, 766 to 773
Pickle Factories .. ..	683	Increase .. ..	755
Pickles, Production .. ..	684	Decennial Periods .. ..	766
Picturegram Service .. ..	209	Elements of .. ..	755
Pig Iron .. ..	495, 514	Intercensal .. ..	759, 766, 772, 796
Pigment Clays .. ..	495	Natural .. ..	768
Pigs .. ..	532, 541, 621	Rates, Australia and .. ..	769, 773
Exports and Imports .. ..	621	Various Countries .. ..	755
In New Guinea .. ..	360	Net Immigration .. ..	771
In Norfolk Island .. ..	347	Since 1881 .. ..	771
In Northern Territory .. ..	339	Total .. ..	771
In Papua .. ..	351	Rates, Australia and .. ..	772
Killed in Bacon Factories .. ..	681	Various Countries .. ..	772
Per Head of Population .. ..	533	Influences Affecting Increase and .. ..	773
Per Square Mile .. ..	533	Distribution .. ..	776
Products, Exports and Imports .. ..	621, 627	Length of Residence, Immi- .. ..	851
Pineapples .. ..	603	grants .. ..	756
Plague, Deaths .. ..	826	Lord Howe Island .. ..	851
		Male .. ..	756

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Population— <i>continued.</i>		Postmaster-General's Department,	
Masculinity ..	762, 775	Expenditure ..	201, 386
In various Countries ..	775	Fixed Assets ..	202
Mean ..	761	Profit or Loss ..	201
Metropolitan ..	765	Revenue ..	200, 379
In Various Countries ..	765	Post and Receiving Offices ..	199
Migration, Oversea ..	779 to 783	Posts, Telegraphs, and Telephones ..	199
Migratory ..	762	Potatoes ..	586
Military ..	322	Area under Crop ..	586
Musters ..	753	Average Yield per Acre ..	587
Nationality ..	776	Consumption ..	587
Natural Increase 759, 766, 772, 796		Exports and Imports ..	588
Nauru ..	365, 788	Production ..	586
Net Immigration ..	769, 773	In Relation to Population ..	587
New Guinea ..	356, 788	Sweet ..	589
Non-European Races ..	776	Value of Crop ..	588
Norfolk Island ..	347, 788	Poultry Farming ..	623
Northern Territory ..	336, 788	Products, Exports and Imports ..	624
Occupations ..	776	Powdered Milk Production ..	682
Papua ..	349, 788	Power, Electric, Works ..	696
Races ..	776	Used in Factories ..	651, 665
Rates of Increase ..	768, 772	Powers, of Federal Parliament ..	9
In Various Countries ..	768, 772	In regard to Commerce ..	9, 14, 220
Religions ..	776	Precious Stones ..	525
Rural ..	762	Preference, British ..	222, 225
Seasonal Variations ..	772	Canada ..	225
Sex Distribution ..	762, 775	New Zealand ..	224
Territories ..	788	Papua and New Guinea ..	224
Total ..	757, 761	South African ..	224
Unemployment ..	776	Preferential Tariff of United Kingdom ..	225
Urban ..	762, 765	Tariffs ..	222
Urban Incorporated Areas ..	766	Premiers of the Several States ..	73
World's ..	774	Premiers' Plan ..	892
Pork, Consumption, Australia and		Preserved Fruit ..	606
Other Countries ..	535, 621	Production ..	684
Oversea Trade ..	621, 627	Press Cables ..	213
Production ..	626	Pressure, Barometric ..	51, 54 to 61
United Kingdom Imports ..	627, 628	Prices ..	704 to 713, 901
Port Adelaide and Semaphore Sewer-		Index-Numbers ..	704 to 713, 901
age ..	105	Retail ..	704 to 713, 901
Port Augusta—Alice Springs Railway	155	Wholesale ..	707, 735
Kalgoorlie Railway ..	155	Primage Duty ..	222, 258
Ports and Harbours, Facilities ..	149	Prime Ministers ..	72
Depth of Water ..	149	Prime Minister's Department, Ex-	
Distance between ..	149	penditure ..	382
Shipping of ..	143	Principal Ports, Trade ..	245
Trade of Principal ..	245	Printing Works ..	694
Postal Department ..	199	Prison Accommodation ..	294
Employees, Number ..	200	Prisoners ..	294
Expenditure ..	201, 386	Prisons ..	294, 299
Facilities ..	199	Improvements in Methods ..	295
Mail Contractors ..	200	Private Dwellings ..	778
Services, Aerial ..	192	Finance ..	435
Sea-borne ..	205	Railways ..	152, 185
Matter dealt with ..	203	Schools ..	276
Notes and Money Orders ..	206	Tramways ..	185 to 191
Profit or Loss ..	201	Wealth (see Synopsis) ..	471
Registered Articles ..	203	Probate Duties ..	412
Revenue ..	200, 379	Probates ..	297, 470
Services, Northern Territory ..	341	Proclamation of Commonwealth ..	20
Value-Payable Parcels Post ..	204	Producers' Co-operative Societies ..	457

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Production, Agricultural ..	561, 899	<b>Q.</b>	
And Exports according to		Quarantine .. ..	311, 314
Industry .. ..	261	Queanbeyan-Canberra Railway	155, 344
Farmyard, Dairy, &c. ..	616	Queensland University .. ..	277
Fisheries .. ..	642	<b>R.</b>	
Forestral .. ..	635	Rabbits, Frozen, Net Exports ..	534
Manufacturing .. ..	648	Rabbit Skins, Net Exports .. ..	534
Mineral .. ..	495, 899	Race of Population .. ..	776
Pastoral .. ..	532	Arrivals and Departures, Over-	
Real .. ..	857	sea Migration .. ..	780
Value of .. ..	535, 565, 661, 856	Radiogram Rates .. ..	209, 212
Valuation of Total Australian	856	Radiograms .. ..	211
Productive Activity .. ..	857	Radio Broadcasting .. ..	217
Prohibition .. ..	851	Communication .. ..	211
Properties, Transferred to Common-		Proficiency Certificates .. ..	219
wealth .. ..	30, 390	Stations .. ..	218, 219
Prospecting, Petroleum Act .. ..	528	Telegraphy and Telephony .. ..	216
Precious Metals Act .. ..	528	Traffic .. ..	218
Protection of Aborigines .. ..	309	Railways .. ..	150
Public Art Galleries .. ..	284	And Defence .. ..	326
Publications, Commonwealth .. ..	862	Central Australia .. ..	155, 340
Meteorological .. ..	36	Communication in Australia .. ..	150
State .. ..	863	Facilities .. ..	152
Statistical .. ..	862	Gauges .. ..	153, 167
100 Selected Works on Australia	863	Unification .. ..	151, 326
Public Benevolence .. ..	301	Graphs .. ..	163 to 166
Public Debt, Commonwealth .. ..	391, 897	Improvement of Statistics .. ..	150
Dates of Maturity .. ..	394	Mileage Open .. ..	151
Flotation of Loans .. ..	390, 392	North Australia .. ..	154, 340
Interest Payable on .. ..	393	Track Mileage, Gauges .. ..	154
Rates of Interest .. ..	393	Trans-Australian .. ..	155
Sinking Fund .. ..	396	Railways, Federal .. ..	154, 387
Transferred Properties .. ..	390	Accidents .. ..	161
Public Debt, Commonwealth and		Cost of Construction and Equip-	
States .. ..	21, 430, 897	ment .. ..	157
Australian Loan Council .. ..	437	Department, Expenditure .. ..	387
Dates of Maturity .. ..	430	Employees, Number .. ..	161
Interest Payable on .. ..	433	Mileage Open .. ..	156
Public Debt, States .. ..	21, 422, 897	Surveyed .. ..	156
Dates of Maturity .. ..	426	Passenger Journeys .. ..	160
Flotation of Loans .. ..	424	Miles .. ..	160
Interest Payable on .. ..	425	Revenue .. ..	158, 379
Rates of Interest .. ..	424	Rolling Stock .. ..	161
Sinking Funds .. ..	427	Ton-mileage .. ..	161
Estate, Condition of .. ..	137 to 139	Tonnage of Goods and Live	
Hygiene .. ..	311	Stock Carried .. ..	160
Instruction (see Education) .. ..	270	Traffic .. ..	160
Justice .. ..	285	Train Miles Run .. ..	156
Libraries .. ..	282	Working Expenses .. ..	158
Museums .. ..	284	Railways, Federal Capital Territory	155, 344
Servants, Number .. ..	77	Railways, Private .. ..	185
Service (Commonwealth) Super-		Mileage Open .. ..	151, 185
annuation Fund .. ..	402	Summary .. ..	185
Vehicles .. ..	196	Railways, State .. ..	162
Works and Services, Common-		Accidents .. ..	184
wealth Revenue and Expendi-		Administration .. ..	162
ture .. ..	368, 371, 380, 389	Annual Mileage Opened .. ..	162
States .. ..	415, 417, 420	Average Mileage Worked .. ..	167
Puerperal Diseases, Deaths .. ..	836, 837	Capital Cost .. ..	170
Pulp, Fruit, Production .. ..	684	Classification according to Gauge	153
Pumpkins .. ..	608	Of Commodities Carried .. ..	180
Purchasing Power of Money .. ..	706		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
<b>Railways, State—continued.</b>		<b>Rates—</b>	
Coaching Traffic Receipts	171, 173	Birth .. ..	790, 796, 797
Consumption of Fuel and Oil ..	184	Cable and Radio (Beam)	209, 212
Cost of Construction and Equip- ment .. ..	169	Death (see Death Rates)	796, 798, 810, 844
Country Traffic .. ..	179	Exchange, Australia on London	446
Electrification .. ..	179	Interstate .. ..	448
Employees, Number .. ..	183	Increase in Population	768, 772
Expenditure from Revenue on Construction .. ..	170	Interest, Commonwealth Debt..	393
Fuel Consumption .. ..	184	Savings Banks .. ..	450
Gauges .. ..	153, 167	State Debts .. ..	424
Goods Rates .. ..	183	Marriage .. ..	796, 805, 806
Receipts .. ..	171, 180	Municipal .. ..	94
Tonnage Carried, Rail- ways .. ..	173, 178, 179	Railway .. ..	183
Interest on Loan Expenditure	177	Shipping Freight .. ..	149
Lines Authorized for Construction	167	Sterling-Dollar .. ..	448
Under Construction .. ..	167	Telephone Calling .. ..	215
Loan Expenditure .. ..	170	Wage .. ..	715
Metropolitan and Suburban Traffic .. ..	179	Changes in .. ..	730
Mileage Open .. ..	162	Real Wages .. ..	722 to 725, 735
Opened Annually .. ..	162	Reciprocal Tariffs .. ..	224
Passenger .. ..	181	Reduction of Licences .. ..	851
Ton .. ..	181	Public Service Salaries	380, 892
Miscellaneous Receipts .. ..	172	Re-exports .. ..	253
Oil and Fuel, Consumption of ..	184	Referenda, Federal .. ..	66
Passenger Fares .. ..	183	Liquor .. ..	851
Journeys .. ..	178	Refineries, Sugar .. ..	687
Mileage .. ..	181	Refrigerating Works .. ..	682
Traffic and Receipts .. ..	178	Registered Articles, Posted and Re- ceived .. ..	203
Profit or Loss .. ..	177	Companies .. ..	455
Rates, Goods .. ..	183	Registration, Interval between Birth and .. ..	805
Revenue, Gross .. ..	171	Of Dairies .. ..	311
Analysis .. ..	172	Of Marriages .. ..	809, 847
Averages .. ..	173	Of Motor Vehicles .. ..	197, 414, 868
Net .. ..	176	Of Private Schools .. ..	276
Averages .. ..	176	Of Trade Unions .. ..	745
Rolling Stock .. ..	183	Religions of Population .. ..	776
Salaries and Wages Paid .. ..	175	Remount Depot .. ..	330
Ton-Mileage .. ..	182	Rents, House .. ..	704 to 731, 901
Tonnage of Goods and Live Stock		Repatriation .. ..	330
Carried .. ..	173, 178, 179	Cost of .. ..	332, 396
Traffic .. ..	178	Department, Expenditure .. ..	333
Train-Miles Run .. ..	167	Soldier Settlement .. ..	333
Working Expenses .. ..	173	Representatives, Federal House of Elections .. ..	65
Analysis .. ..	175	Number of Members .. ..	4, 64
Workshops .. ..	679	Qualifications for Membership ..	7, 64
Rainfall .. ..	39	Salaries of Members .. ..	8, 64
At Australian Capitals	41, 53 to 61	Trade .. ..	228, 867
At Cities in the World .. ..	52	Research, Commonwealth Council for	852
Distribution .. ..	39, 40	Reservations of Crown Lands .. ..	117
Influence of Forests on .. ..	52	Forestry .. ..	632
Maps .. ..	49, 50	Respiratory System, Deaths	834, 843
Mean Annual .. ..	47	Retail Prices .. ..	704 to 713, 901
Mean Monthly .. ..	46	Index-Numbers .. ..	704 to 713, 901
Nauru .. ..	364	Retarded and Defective Children, Education of .. ..	272
Papua .. ..	350	Returned Soldiers, Advances to Settlement .. ..	129, 130 129, 330
Remarkable Falls .. ..	42		
Wettest and Driest Regions ..	39		
Raisins .. ..	601		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Revenue, Commonwealth (see Commonwealth Revenue) ..	369, 408, 897	Schools, Business ..	281
Commonwealth and States ..	428	Expenditure ..	284
States (see States Revenue) ..	408, 428	Federal Capital Territory ..	271, 320, 344
Rheumatism, Deaths ..	833	Industrial ..	304
Rhodium ..	501	Kindergartens ..	277
Rice ..	585	Medical Inspection ..	316
Rifle Clubs ..	326	Private ..	277
Road Boards, Western Australia ..	92	Savings Banks ..	275
Roads—		Shorthand ..	281
Developmental, Victoria ..	81	State ..	271
Government ..	80	Agricultural High ..	273
Net Loan Expenditure ..	83	Agricultural Training in ..	273
Rockhampton Harbour Board ..	108	Attendance ..	272
Municipal Tramway ..	188	Centralization of ..	272
Rock Phosphate ..	495	Cost per Head of Attendance ..	273
Exports and Imports ..	612	Enrolment ..	271
Nauru ..	366	Evening ..	272
Rolling Stock, Railways ..	161, 183	Evening Continuation ..	272
Royal Australian Air Force ..	328	Expenditure ..	274
Australian Navy ..	327	On Buildings ..	275
Humane Society ..	309	High ..	273
Life Saving Society ..	309	Higher ..	273
Military College ..	326	In Federal Capital Territory ..	271
Societies ..	281	In Sparsely-settled Districts ..	272
Rugs, Manufactured ..	691	Net Total Cost ..	275
Rural Population ..	762	Number ..	271
Rye ..	586	Secondary, Maintenance ..	274
		Teachers ..	271, 273
		Technical ..	280
		Training Colleges ..	273
		Scientific Research, Council for ..	852
		Societies ..	281
		Scotch Barley, Exports ..	585
		Seasonal Employment in Australia ..	745
		Variations of Population ..	772
		Seat of Government (see Federal Capital Territory) ..	342
		Secondary Schools, Expenditure on ..	274
		Maintenance ..	607
		Seed, Grass ..	576
		Wheat Used ..	36
		Seismology of Australia ..	4, 64
		Senate ..	8, 64
		Allowance to Members ..	65
		Elections ..	4, 64
		Number of Members ..	5, 64
		Qualifications for Membership ..	837
		Senile Debility, Deaths ..	325
		Senior Cadets ..	297
		Separations, Judicial ..	836
		Septicæmia, Puerperal, Deaths ..	313
		Serum Laboratories ..	112, 139
		Settlement, Land ..	137
		Present Position of ..	346
		Norfolk Island ..	741
		Of Industrial Disputes ..	129, 333
		Of Returned Soldiers and Sailors ..	112, 130 to 132
		Settlers, Advances to ..	100
		Sewage Farm, Victoria ..	

S.

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Sewerage .. ..	80, 96	Sickness and Death Returns, Friendly Societies .. ..	468
New South Wales .. ..	96	Silos, Ensilage .. ..	614
Victoria .. ..	99	Silver .. ..	495, 497, 502, 899
Queensland .. ..	102	Coinage .. ..	405
South Australia .. ..	104	Issues .. ..	406
Western Australia .. ..	105	Profits on .. ..	405
Tasmania .. ..	106	Standard Weight and Fineness .. ..	403
Sex Distribution, in Factories .. ..	656	Concentrates, Exports .. ..	530
Of Population .. ..	762, 775	Concentrates, Export from New South Wales .. ..	503
Shale .. ..	495, 523	Employment in Mining .. ..	505, 526
Production .. ..	495, 523	Exports and Imports, Specie and Bullion .. ..	259
Shale Oil .. ..	523, 899	Local Extraction .. ..	530
Shawls, Manufactured .. ..	691	Metallic Contents of Ores Exported .. ..	530
Sheep .. ..	532, 541, 546	Occurrence in each State .. ..	502
Exports .. ..	548	Prices .. ..	505
Imports .. ..	548	Production .. ..	495, 497, 502, 507, 899
In Federal Capital Territory .. ..	344	In New South Wales .. ..	503
In New Guinea .. ..	360	In Various Countries .. ..	505
In Norfolk Island .. ..	347	Sources of Production .. ..	502
In Northern Territory .. ..	339	World's Production .. ..	504
In Various Countries .. ..	547	Sinking Funds .. ..	28, 396, 427
Net Exports .. ..	534	Skin Diseases, Deaths .. ..	837
Percentage in each State .. ..	547	Skins and Hides, Trade in .. ..	559
Per Head of Population .. ..	533	Consumed in Factories .. ..	535
Per Square Mile .. ..	533	Exports to Eastern Countries .. ..	246
Slaughtered .. ..	549	Net Exports .. ..	534
World's Total .. ..	548	Slippers, Production .. ..	692
Sheepskins, Export .. ..	559	Slop (Clothing) Factories .. ..	692
Net Exports .. ..	534	Small Arms Factories .. ..	329
Used in Tanneries .. ..	674	Small-pox, Deaths .. ..	826
Shipping .. ..	140	Smelting Works .. ..	678
Cargo Tonnage .. ..	148	Snakebite, Deaths .. ..	840
Casualties .. ..	149	Snowfall .. ..	44
Freight Rates .. ..	149	Soap and Candle Factories .. ..	675
Interstate .. ..	144	Production .. ..	675
And Coastal Services .. ..	148	Societies, Building and Investment .. ..	456
Legislation .. ..	150	Co-operative .. ..	457
Navigation Act .. ..	150	Friendly .. ..	468
New Guinea .. ..	363	Royal .. ..	281
Northern Territory .. ..	340	Scientific .. ..	281
Of Ports .. ..	143	Society, British Astronomical .. ..	282
Oversea .. ..	140	Linnean .. ..	282
Communication with Various Countries .. ..	140	Royal Humane .. ..	309
Direction .. ..	141	Royal Life Saving .. ..	309
Nationality of Vessels Entered .. ..	142	Soda Nitrate, Exports and Imports .. ..	612
Tonnage Entered and Cleared .. ..	141	Softening of the Brain, Deaths .. ..	833
Total Entered .. ..	140	Solar Observatory, Canberra .. ..	854
Papua .. ..	353	Soldiers' Children Education Scheme .. ..	332
Ports and Harbours, Facilities .. ..	150	Settlement on the Land .. ..	112, 129, 333
System of Record .. ..	140, 144	Solomon Islands .. ..	354
Ships, Built and Registered .. ..	143	South African Preference .. ..	224
Navy .. ..	327	South Brisbane-Grafton Railway .. ..	150
Ships' Stores .. ..	230, 258	Specie, Exports and Imports .. ..	256, 259, 267
Shires .. ..	80, 84	Spirits, Consumption per Head .. ..	290
Shoe Factories .. ..	691	Distilled .. ..	689
Shoes, Production .. ..	692	Quantity on which Excise Duty was Paid .. ..	268
Shops, Legislation .. ..	750		
Short-cut Estimation .. ..	883		
Shorthand Schools .. ..	281		

\* For Index to special articles and other matter in preceding Year Books, see page 939.



	PAGE		PAGE
Stamp Duties, States .. ..	413	State— <i>continued.</i>	
Standard Fineness of Coinage ..	403	Revenues— <i>continued.</i>	
Weight of Coinage .. ..	403	Surplus .. ..	418
Standards Association of Australia ..	855	Trust Funds .. ..	419
State Accounts .. ..	408	Unemployment Relief Tax ..	411, 414, 745
Aid to Mining .. ..	528	Rivers and Water Supply Com-	
And Commonwealth Public		mission, Victoria .. ..	102
Debts .. ..	430	Savings Bank .. ..	448
And Commonwealth Finance ..	408, 428	Schools (See Schools, State) ..	271
And Commonwealth Taxation ..	429	States, Areas .. ..	1, 35
Children .. ..	305, 321	Consolidated Revenue .. ..	408, 897
Consolidated Revenue Funds ..	408	Constitutions .. ..	2
Debts, Referendum .. ..	21, 66	Under Commonwealth Act ..	17
Transfer to Commonwealth ..	21, 408	Dates of Creation .. ..	1
Expenditure .. ..	416, 428, 897	New .. ..	18
Charities .. ..	310	Statistical Bureau .. ..	862
Details .. ..	417	Conferences .. ..	862
Education .. ..	284	Organization .. ..	862
Justice .. ..	299	Publications, Commonwealth ..	862
Per Head of Population .. ..	417, 421, 897	States .. ..	863
Roads and Bridges .. ..	80 to 84	Registers .. ..	863
Total .. ..	417	Statisticians, Prominent .. ..	862
Finance .. ..	408, 897	Statistics, Development of Austra-	
Fisheries, Revenue .. ..	646	lian .. ..	862
Forestry Departments .. ..	632	Steam Vessels, .. ..	140, 144
Governments, Cost of Principal		Tramways .. ..	185
Services .. ..	78	Steel (see Iron) .. ..	513
Functions of .. ..	408	Bounties .. ..	514, 610
Governors .. ..	62	Production .. ..	513, 678
Land Legislation .. ..	112	Works, Smelting, etc. .. ..	678
Loan Expenditure .. ..	419, 897	World's Production .. ..	514
Loan Funds .. ..	419	Stereotyping Works .. ..	694
Loans .. ..	419	Sterling-Dollar Rates .. ..	448
Ministers .. ..	73	Stock Departments .. ..	615
Properties Transferred to Com-		Stomach, Diseases of, Deaths ..	843
monwealth .. ..	390	Storms .. ..	51
Public Debts .. ..	21, 422, 427	Stout, Production .. ..	688
Railways .. ..	162	Strikes .. ..	730 to 742
Revenues .. ..	409, 428, 897	Sub-Artesian Bores .. ..	106, 699
Business Undertakings .. ..	415	Subsidies, Commonwealth to State ..	388
Commonwealth Payments .. ..	388, 416	Mail .. ..	205
Dividend Duties, Western		Succession Duties .. ..	413
Australia .. ..	414	Sugar, Sugar Cane .. ..	567, 592
Fisheries .. ..	646	Agreement Act .. ..	596
Forestry Departments .. ..	633	Average Yield .. ..	594
Income Tax .. ..	414	Bounties .. ..	596
Land Tax .. ..	413	Bureau of Experimental Stations ..	594
Miscellaneous .. ..	416	By-Products .. ..	597
Motor Taxation .. ..	414	Committee of Inquiry .. ..	596
Per Head of Population .. ..	409, 410, 897	Consumption in Factories .. ..	595
Probate Duties .. ..	413	Embargo on Imports .. ..	596
Public Works and Services ..	415	Exports and Imports .. ..	597
Sources .. ..	410	Mills .. ..	686
Stamp Duties .. ..	413	Net Return for Crop .. ..	596
Succession Duties .. ..	413	Prices .. ..	597
Taxation .. ..	411	Production .. ..	593, 686
Territorial .. ..	416	Per Head of Population .. ..	595
Total .. ..	409, 410, 897	Purchased by Commonwealth Go-	
Sinking Funds .. ..	427	vernment .. ..	596
		Refineries .. ..	687
		Used in Breweries .. ..	688

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Sugar-beet .. ..	589, 595	Telegraphs— <i>continued.</i>	
Suicide .. ..	838	Length of Lines .. ..	209
Sulphur Bounty .. ..	610	Machine Telegraphy .. ..	208
Sunshine at the Capital Cities	54 to 61	Northern Territory .. ..	341
Superannuation Fund : Common-		Number of Offices .. ..	209
wealth Public Service .. ..	402	Phonogram Service .. ..	209
Superior Courts .. ..	293	Picturegram Service .. ..	209
Civil Cases .. ..	296	Profit or Loss .. ..	201
Committals to .. ..	291	Revenue .. ..	200
Convictions at .. ..	293	Summary .. ..	209
Superphosphates, Exports and		Telegraphy, Radio .. ..	216
Imports .. ..	612	Telephones .. ..	213
Surplus Revenue, Commonwealth	370	Automatic Exchanges .. ..	214
States .. ..	418	Comparison with Other Countries	213
Sweet Potatoes .. ..	589	Connexions .. ..	214
Sydney Fire District .. ..	110	Daily Calling Rate .. ..	215
Harbour Bridge .. ..	81	Earnings .. ..	214
Harbour Trust .. ..	106	Exchanges .. ..	214
Sewerage .. ..	97	Instruments .. ..	214
Tramways .. ..	187	Mileage .. ..	213
University .. ..	277, 315	Oversea System .. ..	217
Water Supply .. ..	96	Profit or Loss .. ..	201
Sylvicultural Nurseries and		Revenue .. ..	200, 215, 379
Plantations .. ..	636	Subscribers' Lines and Calling	
Syphilis, Deaths .. ..	829	Rates .. ..	215
Syrians in Australia .. ..	776	Summary .. ..	214
		Systems in Use .. ..	215
<b>T.</b>		Trunk Line Calls .. ..	215
Tailoring Factories .. ..	692	System .. ..	213
Tallow, Local Consumption .. ..	535	Working Expenses .. ..	214
Net Exports .. ..	255, 534	Telephony, Radio .. ..	216
Used in Soap and Candle Fac-		Temperate Regions of Australia .. ..	33
tories .. ..	675	Temperatures .. ..	37
Tan Barks .. ..	636	At Australian Capitals .. ..	52 to 61
Exports and Imports .. ..	640	At Cities in the World .. ..	52
Tanneries .. ..	674	Monthly Maximum and Mini-	
Tannin .. ..	636	mum .. ..	38, 45, 54 to 61
Tariff, Acts .. ..	220	Tenure, Land .. ..	112
Board .. ..	226	By Aliens .. ..	130
Customs .. ..	220	Tenures, Land, Classification .. ..	114
Industries Preservation Act .. ..	227	Territorial Revenue, States .. ..	416
Tariffs, Preferential .. ..	222, 224	Territories of Australia .. ..	336
Reciprocal .. ..	224	Expenditure .. ..	387
Tasmania, University of .. ..	277	Executive Government .. ..	336
Taxation, Commonwealth .. ..	371, 374	Federal Capital Territory	
Commonwealth and States .. ..	429	Finances .. ..	342 to 346
Papua .. ..	349	Nauru .. ..	364 to 367
States .. ..	411, 412	New Guinea .. ..	354 to 364
Teachers, in Business Colleges .. ..	281	Norfolk Island .. ..	346 to 347
In Kindergartens .. ..	277	Northern Territory .. ..	336 to 341
In Private Schools .. ..	276	Papua .. ..	348 to 354
In State Schools .. ..	271, 273	Population .. ..	788
In Technical Schools .. ..	280	Timber .. ..	635
In Universities .. ..	277	Commercial Uses .. ..	637
Training Colleges .. ..	273	Distribution .. ..	629, 630
Technical Education .. ..	280	In New Guinea .. ..	360
Telegrams Dispatched .. ..	210	Mills .. ..	676
Telegraphs .. ..	208	Oversea Trade .. ..	637
Density compared with other		Production .. ..	635
Countries .. ..	211	Uniformity in Nomenclature .. ..	637
Carrier Wave System .. ..	208		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Tin .. .. .	495, 497, 510, 899	Trade— <i>continued.</i>	
Employment in Mining .. .. .	512, 526	Special, Various Countries .. .. .	262
Ingots, Exports .. .. .	531	With Eastern Countries .. .. .	246
Local Extraction .. .. .	530	With United Kingdom .. .. .	263
Metallic Contents of Ores Ex- ported .. .. .	530	With Various Countries 235, 240, 263 Year .. .. .	230
Northern Territory .. .. .	339	Trade Marks .. .. .	850
Prices .. .. .	511	Unions .. .. .	745
Production .. 495, 497, 508, 510, 899 In Various Countries .. .. .	511	Unemployment in .. .. .	743
Sources of Production .. .. .	510	Traffic, Railways .. .. .	160, 178
World's Production .. .. .	511	Radio .. .. .	218
Titles, Registration of, New Guinea	358	Training Colleges, Teachers' Military .. .. .	273 322
Tobacco .. .. .	607	Vocational .. .. .	332
Factories .. .. .	689	Train-miles Run, Railways .. .. .	156, 167
Leaf used in Factories .. .. .	689	Tramways .. .. .	185
Manufactured, Production .. .. .	689	Classification .. .. .	186
Quantity on which Excise Duty was paid .. .. .	268	Cost of Construction .. .. .	187
Ton-Mileage, Railways .. .. .	161, 181	Electric .. .. .	185 to 190
Tonnage, of Goods, Railways	160, 173, 178, 179	Mileage Open .. .. .	186
Shipping, Cargo .. .. .	148	State Details .. .. .	187
Entered and Cleared .. .. .	140	Tramway Workshops .. .. .	679
Tortoiseshell .. .. .	645, 647	Trans-Australian Railway .. .. .	155
Towns, Population .. .. .	766	Transport and Communication .. .. .	140, 868
Townsville Harbour Board .. .. .	108	Travelling Study Tours .. .. .	315
Trade .. .. .	220, 873	Trawling Industry .. .. .	647
Trade and Customs Department Ex- penditure .. .. .	385	Treasury Department (Federal), Expenditure .. .. .	382
Trade, Balance of Oversea 233, 239, 249, 873 By States .. .. .	244	Trepang Fisheries .. .. .	643, 645
Classified Summary of Aus- tralian .. .. .	251	Northern Territory .. .. .	339
Commissioners .. .. .	228	Triplets .. .. .	799
Conditions .. .. .	232	Trochus Shell, Production and Ex- ports .. .. .	645, 647
Descriptions Act .. .. .	227	Troops, Australian, in Great War .. .. .	330
Direction of .. .. .	235	Tropical Diseases .. .. .	314
External, Compared with Other Countries .. .. .	263	Medicine, Institute of .. .. .	315
Graphs .. .. .	247 to 250	School of .. .. .	315
Imports in Tariff Divisions .. .. .	256	Regions of Australia .. .. .	33
In Calendar Years .. .. .	267	Trunk Lines, Telephones .. .. .	213
Interstate .. .. .	269	Trustee Companies .. .. .	455
Legislation affecting .. .. .	220, 227	Trust Fund, Commonwealth .. .. .	388
Merchandise .. .. .	233, 256, 267	Funds, States .. .. .	419
Nauru .. .. .	367	Trusts, Harbour (see Harbour Trusts) 106	
New Guinea .. .. .	361	Tuberculosis, Deaths .. .. .	826 to 829, 832
Norfolk Island .. .. .	347	Tumours, Malignant, Deaths .. .. .	829
Northern Territory .. .. .	340	non-cancerous, Female Deaths .. .. .	836, 843
Of Principal Ports .. .. .	245	Turnips .. .. .	589
Of United Kingdom with Aus- tralia compared with that of Competing Countries .. .. .	263	Tutorial Classes, Workers' .. .. .	279
Oversea .. .. .	220, 231, 873	Tweed and Cloth Production .. .. .	691
Papua .. .. .	353	Mills .. .. .	690
Prima duty .. .. .	222	Twins .. .. .	799
Principal Articles .. .. .	254	Typhilitis, Deaths .. .. .	835
Records of Past Years .. .. .	230	Typhoid Fever, Deaths .. .. .	826
Representatives .. .. .	228	Typhus, Deaths .. .. .	826
Ships' Stores .. .. .	230, 258		
Specie and Bullion .. .. .	256, 259, 267	<b>U.</b>	
		Unconditional Purchases of Free- hold .. .. .	119
		Unemployed in Trade Unions, Number and Percentage .. .. .	743

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Unemployment .. ..	776, 743	War, Cost of .. ..	396
At Census of 1921 .. ..	776	European, 1914 .. ..	330
In each State .. ..	743	Expenditure .. ..	396
In Industrial Groups .. ..	744	Gratuity .. ..	330
Relief .. .. 78, 411, 414, 745		Loan, Imperial .. ..	390
Unification of Railway Gauges .. ..	150, 326	Loans, Australian .. ..	390
Unions, Trade .. ..	745	Pensions .. ..	331, 401
United Kingdom, Trade with .. ..	240, 263	Precautions Act Repeal Act .. ..	330
Imports of Dairy Products .. ..	627	Railway Council .. ..	326
Preferential Tariff .. ..	222, 225	Service Homes .. ..	335
Universities .. ..	272, 277	Services, Cost .. ..	396
Development .. ..	277	Time Profits Tax .. ..	378
Expenditure .. ..	279	Warships, Australian Navy .. ..	327
Origin .. ..	277	Water, Artesian .. ..	698
Private Benefactions .. ..	278	Conservation .. ..	698
Revenue .. ..	278	Power, Papua .. ..	352
Students .. ..	277	Supply .. ..	80, 96
Teachers .. ..	277	New South Wales .. ..	96
University Extension Lectures .. ..	279	Victoria .. ..	99
College, Canberra .. ..	272, 279	Queensland .. ..	102
Uppers, Boot, Production .. ..	692	South Australia .. ..	103
Urban Population .. ..	762, 765	Western Australia .. ..	105
		Tasmania .. ..	106
		Water Trusts, Victoria .. ..	102
<b>V.</b>		Wealth, Private ( <i>see Synopsis</i> ) .. ..	471
Vaccination .. ..	313	Weather ( <i>see Meteorology</i> ) .. ..	36
Valuations, Local Government .. ..	84 to 94	Week-end Cable Messages .. ..	213
Value Payable Post .. ..	204	Weekly Rates of Wage .. ..	716
Production .. .. 535, 565, 661		Western Australia, University .. ..	277
Vapour Pressure .. ..	38	Western Australian Artesian Basins .. ..	698
Capital Cities .. ..	54 to 61	Fire Brigades Board .. ..	111
Veneral Diseases .. ..	313	Wheat .. ..	566, 899
Vessels, Built and Registered .. ..	143, 144	Area under Crop .. ..	566, 567
Naval .. ..	327	Bounty .. ..	611
Veterinary Hygiene .. ..	314	Consumption, Local .. ..	576
Vinegar Factories .. ..	683	Other Countries .. ..	576
Vineyards .. ..	567, 598	Exports .. ..	255, 572
Violence, Deaths from .. ..	840	Principal Countries .. ..	572, 573
Vital Statistics .. ..	789 to 848	To Eastern Countries .. ..	246
Births .. ..	789, 793	Export Price .. ..	572
Deaths .. ..	795, 810	Ground for Flour .. ..	685
Graphical Representation .. ..	848	Imports, Principal Countries .. ..	575
Marriages .. ..	794, 805	Pools .. ..	577, 899
Vocational Training (Soldiers') .. ..	332	Prices .. ..	569, 572
Voting, at Federal Elections .. ..	65	Production .. ..	566, 568
At Referenda (Constitution .. ..		In Various Countries .. ..	571
Alteration) .. ..	66	Stocks of .. ..	577
At State Elections .. ..	66 to 71	Used for Seed .. ..	576
		Value of Crop .. ..	577
		World's Production .. ..	571
<b>W.</b>		Yield .. ..	570
Wages .. ..	714 to 730	In Various Countries .. ..	570
Awards, etc. .. ..	714	Per Acre .. ..	570
Basic .. ..	725	In Various Countries .. ..	571
Boards .. ..	714	Wholesale Prices .. ..	703, 735
Changes in Rates of .. ..	730	Index-Numbers .. ..	703, 735
Nominal .. .. 716 to 729, 735		Revision of the Index .. ..	704
Paid in Factories .. ..	661	Whooping Cough, Deaths .. ..	826
Paid in Mining .. ..	526	Wind .. ..	51
Rates of .. ..	715	At the Capital Cities .. ..	54 to 61
Hourly .. ..	719		
Weekly .. ..	716		
Real .. ..	722 to 725, 735		

\* For Index to special articles and other matter in preceding Year Books, see page 939.

	PAGE		PAGE
Wine .. .. .	598	Wool— <i>continued.</i>	
Bounty .. .. .	599, 610	Scoured, Exports .. .. .	555
Consumption per Head .. .. .	290	Value, Average Export .. .. .	556
Exports and Imports .. .. .	600	World's Production .. .. .	553
Production .. .. .	599	Woollen Mills .. .. .	690
Used in Distilleries .. .. .	689	Workers' Educational Association .. .. .	279
Wireless .. .. .	216 to 219	World, Motor Census .. .. .	198
Beam .. .. .	217	Population of .. .. .	774
Broadcasting .. .. .	217	Worn Coin, Withdrawals of .. .. .	404, 406
Licences .. .. .	216		
Telegraphy .. .. .	216	Z.	
Telephony .. .. .	216	Zinc .. .. .	495, 497, 502, 512, 899
Traffic .. .. .	218	Concentrates, Exports .. .. .	531
Woolfram .. .. .	495, 497	Concentrates, Exported from .. .. .	
Wool .. .. .	551	New South Wales .. .. .	512
Exports .. .. .	255, 555	Employment in Mining .. .. .	526
To Eastern Countries .. .. .	246	Exports .. .. .	531
Imports into United Kingdom .. .. .	557	Local Extraction .. .. .	512
Inquiry into Industry .. .. .	558	Metallic Contents of Ores Ex-	
Locally Used .. .. .	554	ported .. .. .	530
Local Sales .. .. .	556	Prices .. .. .	513
Market .. .. .	557	Production .. .. .	495, 497, 507, 512, 899
Net Exports .. .. .	534	World's Production .. .. .	513
Production .. .. .	535, 552		
Realization Scheme .. .. .	557		

\* For Index to special articles and other matter in preceding Year Books, see page 939.



## LIST OF MAPS, GRAPHS, AND DIAGRAMS.

	PAGE
Agriculture, Principal Crops .. .. .	567, 568
Artesian Basins .. .. .	701-702
Bacon and Hams, Production .. .. .	542
Balance of Trade with Certain Countries .. .. .	249
Barley, Area under and Production .. .. .	567, 568
Barometric Pressures, Capital Cities .. .. .	47
Births and Birth Rates .. .. .	793, 796, 797, 797A
Butter, Net Exports .. .. .	542
Production .. .. .	542
Cattle, Number .. .. .	541
Cheese, Production .. .. .	542
Coal, Production .. .. .	508
Copper, Production .. .. .	507
Crops, Area and Production .. .. .	567, 568
Dairy Production .. .. .	542
Deaths and Death Rates .. .. .	795, 796, 798, 798A
Disputes, Industrial, Working Days Lost .. .. .	736
Evaporation and Rainfall .. .. .	46
Exports .. .. .	247 to 250
According to Industries .. .. .	250
Butter .. .. .	542
Gold, Production .. .. .	507
Hay, Area under and Production .. .. .	567, 568
Heat Waves and Maximum Temperatures .. .. .	48
Horses, Number .. .. .	541
Humidity, Fluctuations of .. .. .	45
Imports .. .. .	247 to 250
Index-Numbers—	
Nominal Wage .. .. .	735
Real Wage .. .. .	735
Retail Prices .. .. .	735
Unemployed, Percentage of .. .. .	735
Wholesale Prices, Melbourne .. .. .	735
Industrial Disputes, Working Days Lost .. .. .	736
Iron, Production .. .. .	507
Land Settlement .. .. .	139
Lead, Production .. .. .	507
Live Stock, Number .. .. .	541
Maize, Area under and Production .. .. .	567, 568
Marriages .. .. .	794, 796
Minerals, Value of Production .. .. .	507, 508
Nominal Wage Index-Numbers .. .. .	735
Oats, Area under and Production .. .. .	567, 568
Pigs, Number .. .. .	541

	PAGE
Population of Australia .. .. .	757
Distribution at Census of 4th April, 1921 .. .. .	760
Natural Increase .. .. .	759
Total Increase .. .. .	758, 759
Price Index-Numbers, Retail and Wholesale .. .. .	735
Production—	
Agricultural .. .. .	568
Dairy .. .. .	542
Mineral .. .. .	507, 508
Public Estate, Condition of .. .. .	139
Railway Systems, Government .. .. .	165, 166
Percentage of Net Revenue on Capital Cost .. .. .	163
Percentage of Working Expenses on Gross Revenue .. .. .	163
State Government, Financial Position .. .. .	164
Rainfall—	
and Evaporation .. .. .	46
Distribution, Average Annual .. .. .	49
Distribution, Mean Monthly .. .. .	50
Real Wage Index-Numbers .. .. .	735
Retail Price Index-Numbers .. .. .	735
Sheep, Number .. .. .	541
Silver, Production .. .. .	507
Sugar Cane, Area under .. .. .	567
Temperature—	
Fluctuations of .. .. .	45
Longest Heat Waves and Maximum Temperatures .. .. .	48
Tin, Production .. .. .	508
Trade, Balance with Certain Countries .. .. .	249
Total Value of .. .. .	247
Value per Head of Population .. .. .	248
Unemployed, Percentage of .. .. .	735
Vineyards, Area .. .. .	567
Wage Index-Numbers .. .. .	735
Wheat, Area under and Production .. .. .	567, 568
Wholesale Price Index-Numbers .. .. .	735
Zinc, Production .. .. .	507



## LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES.

This list refers to the special articles and other more or less important miscellaneous matters which appeared in previous issues of the Official Year Book, but which, owing to exigencies of space, are either not included, or included in abbreviated form only, in the present issue. The list has been restricted to articles, etc., to which references are not given in the various chapters of this issue.

The Roman figures indicate the number of the Year Book to which reference is made. In cases where matter was published in more than one previous issue, the volume and page for the last issue containing such matter are given.

	Year Book No.	Page
Administrative Government .. .. .	XII.	924
Advances to Settlers .. .. .	XII.	383
Advisory Council of Science and Industry .. .. .	XI.	1195
Animal and Vegetable Diseases and Pests Acts (Conspectus) .. .. .	XIV.	1066
Annexation of Australia .. .. .	XXII.	4
Australian Metal Exchange .. .. .	XII.	471
Bounties on Agricultural Products .. .. .	XIV.	296
Building Stones of Australia .. .. .	IX.	446
Building Stones of Queensland .. .. .	XII.	89
Bulletins of Climatology .. .. .	XIX.	51
Canberra, Past and Present .. .. .	XXIV.	454
Cancer in Australia, 1881 to 1910 .. .. .	V.	230
Census and Statistics Act of 1905 (Text) .. .. .	I.	8
Chemistry, South Australian Department of .. .. .	XIV.	1064
Commercial and Industrial Bureau of the Board of Trade .. .. .	XVII.	1037
Commonwealth Bank .. .. .	XI.	815
Commonwealth Bureau of Census and Statistics, Creation of .. .. .	I.	11
Commonwealth Government Shipping and Shipbuilding Activities .. .. .	XXII.	256
Commonwealth Savings Bank .. .. .	X.	789
Constitution Acts (Conspectus) .. .. .	XIII.	928
Coolgardie Water Scheme .. .. .	VI.	576
Co-operation in Australia .. .. .	XVII.	581
Copper Mining, History of .. .. .	V.	498
Cost of Living Inquiry, 1910-11 .. .. .	V.	1167
Country Roads Board, Victoria .. .. .	XV.	526
Creation of Colonies .. .. .	{ VIII. XXII.	17 5
Customs Tariff, 1914 .. .. .	XI.	603
Decimal Coinage .. .. .	XV.	719
Designs .. .. .	XII.	1174
Diphtheria .. .. .	XVI.	1031
Early Knowledge of Australia .. .. .	I.	44
Enemy Contracts Annulment Act 1915 (Text) .. .. .	VIII.	1095
Enemy Patents and Trade Marks .. .. .	XIII.	1104
Exploration of Australia (Maps) .. .. .	VIII.	35
Fauna of Australia .. .. .	II.	111
Federal Capital City (Map and Designs for Lay-out) .. .. .	V.	1139
Federal Capital Territory—Structure and Scenery of.. .. .	XXII.	627
Federal Movement in Australia .. .. .	I.	17

	Year Book No.	Page
Flora of Australia .. .. .	II.	117
Fodder Plants, Native Australian .. .. .	VI.	1190
Food and Drugs, Inspection and Sale .. .. .	XII.	1053
Forest Areas, Characteristics of State .. .. .	VI.	446
Forestry in Australia .. .. .	XIX.	701
Fremantle Harbour Trust .. .. .	XII.	973
Friendly Societies Acts (Conspectus) .. .. .	X.	800
Geological History of Australia, Salient Features .. .. .	VII.	56
Geological Map of Australia .. .. .	XII.	51
Geology of Australia .. .. .	II.	78
German Place Names, Changing of .. .. .	XIX.	50
Goulburn River Gravitation Scheme (Map) .. .. .	XIII.	561
Grasses and Saltbushes of Australia .. .. .	IX.	84
Health Legislation .. .. .	XII.	1050
Henderson, Report by Sir Reginald (Naval Matters) .. .. .	VI.	1067
Hydrology of Australia .. .. .	II.	67
Influenza Epidemic of 1918-19 .. .. .	XIII.	1128
International Currency .. .. .	XIII.	1146
Interstate Commission .. .. .	XIII.	1123
Interstate Commission, Tariff Reports .. .. .	IX.	1134
Iron Mining, History .. .. .	III.	508
Islands off the Coast of Australia .. .. .	V.	51
Labour and Industrial Branch, Functions .. .. .	VII.	992
Lakes of Australia .. .. .	IV.	59
Life Tables .. .. .	XX.	962
Lighthouses and Lights .. .. .	II.	668
Local Option .. .. .	XV.	1027
Manufactures Encouragement Act 1908-12 .. .. .	XI.	451
Marine and Fresh Water Fisheries of Australia .. .. .	XVII.	752
Marketing of Australian Commodities .. .. .	XXII.	1016
Masculinity of Population, 1796 to 1907 .. .. .	II.	163
Medical Inspection of State School Children .. .. .	XII.	1068
Military Cadets, Anthropometrical Measurements of .. .. .	XI.	1203
Military System, Development .. .. .	XII.	999
Military System prior to Federation, History of .. .. .	II.	1075
Milk Supply and Dairy Supervision .. .. .	XII.	1056
Mineral Springs in Australia .. .. .	VI.	55
Mining, Aid to .. .. .	V.	527
Mountain Systems of Australia .. .. .	III.	59
Municipal Rating .. .. .	XVII.	124
Murray River Waters Conference .. .. .	VII.	1059
New Guinea, Territory of, and Papua—Map .. .. .	XVI.	665
Orographical Map of Australia .. .. .	XI.	49
Orography of Australia .. .. .	III.	59
Parliamentary and Departmental Reports and Papers .. .. .	XIII.	4
Past Glacial Action in Australia .. .. .	XIII.	1133
Past Volcanic Action in Australia .. .. .	XIV.	46
Patents .. .. .	XII.	1170
Penological Methods, Improvement of .. .. .	V.	922
Plains and Penplains of Australia .. .. .	XII.	82
Population of Australia, Characteristics of the Development of, and the effect of the War thereupon .. .. .	XIII.	1126
Ports of Australia .. .. .	III.	669
Postal Services in Early Days .. .. .	V.	754
Post-Censal Adjustment of Population Estimates .. .. .	VI.	112

	Year Book No.	Page
Preferential Tariffs of the British Empire .. .. .	XI.	601
Premiers' Conference, 1914 .. .. .	VII.	1055
Premiers' Conference, 1915 .. .. .	VIII.	1081
Premiers' Conference, 1916 .. .. .	XI.	1191
Premiers' Conference, 1916-17 .. .. .	XII.	1194
Premiers' Conference, 1918 .. .. .	XIV.	1061
Publications issued by the Commonwealth Statistician, 1906-20	XIII.	2
Publications, State, 1906-20 .. .. .	XIII.	6
Railways, Nonconformity of Gauge .. .. .	XV.	534
Railways, Private .. .. .	XIV.	611
Rainfall, Factors determining Distribution and Intensity ..	VI.	72
Rainfall Map—Wettest Months of Year .. .. .	XVII.	69
Rainfall from 1860 .. .. .	XV.	53
Rates of Infant Mortality, Australia .. .. .	V.	227
Rates of Mortality, Methods of Measuring .. .. .	XII.	229
Registration of Births, Marriages and Deaths, and Legitimation Acts (Conspectus) .. .. .	XIII.	212
Returned Soldiers' Settlement Acts (Conspectus) .. .. .	XIII.	1018
Rivers of Australia .. .. .	II.	67
Sale and Custody of Poisons .. .. .	XII.	1054
Seat of Government .. .. .	IV.	1134
Seismology in Australia .. .. .	IV.	82
Settlement in Australia, Climatic Factors influencing ..	XI.	84
Standard Times in Australia .. .. .	XI.	1201
State Aid to Mining .. .. .	V.	540
Statistical Conference, 1906 .. .. .	I.	12
Statistics, Development of State .. .. .	I.	1
Suicide in Australia .. .. .	V.	240
Sydney Harbour Collieries .. .. .	VI.	504
Taxation Acts (Conspectus) .. .. .	XIV.	722
Tin Mining, History of .. .. .	III.	504
Topography of Australia .. .. .	XX.	75
Trade Marks .. .. .	XII.	1173
Trade of the Individual States .. .. .	IV.	664
Trade, Prices, and House Rents—Control of .. .. .	XXII.	530
Trade Unionism in Australia, Historical Development ..	IX.	937
Trans-Australian Railway .. .. .	XI.	662
Treasurers' Conference, 1914 .. .. .	VII.	1061
Tuberculosis in Australia, 1881 to 1910 .. .. .	V.	230
Unification of Gauge .. .. .	XIV.	563
Unification of Gauge Conference .. .. .	XV.	535
Universities, Historical Sketch .. .. .	II.	898
Wages and Conditions of Employment (Conspectus) ..	XVI.	567
Wages and Terms of Contract, Regulation .. .. .	IX.	959
Wages, Real—International Comparison of .. .. .	XXII.	542
War Loans (Commonwealth) .. .. .	XIV.	695
War Precautions Act 1914 .. .. .	XI.	1034
War Precautions Regulations .. .. .	XI.	1034
Wealth, Private of Australia, 1925 .. .. .	XXI.	415
Weights and Measures Acts (Conspectus) .. .. .	XV.	1038
Wimmera-Mallee Gravitation Channel System, Map ..	XIII.	562
Wireless Telegraphy .. .. .	XV.	628
Workmen's Compensation Acts (Conspectus) .. .. .	XXII.	1028

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