#### MUNICIPAL STATISTICS.

Amongst the various enactments which became law for Early legislation. Victoria on its separation from New South Wales was a provision in the Imperial Act authorizing the Governor to incorporate the inhabitants of every county, to form districts for the purpose of local government, and to establish elective District Councils with power to frame by-laws for making and maintaining roads, establishing schools, levying local tolls and rates, &c. Many of the provisions of the Act were found to be unworkable and expensive in the details. and the District Councils therefore discontinued their meetings and practical working under the Act. Improved legislation being required, an Act was passed in 1853, establishing a central Road Board for the whole Colony, with an Inspector-General and staff, and also providing for the creation of local Road Districts under the management of Road Boards. This Act made provision chiefly for local government in country districts, and the greater part of it remained in force until 1863, when it was repealed, and replaced by the Roads Districts and Shires Act. In the meanwhile suburban districts and towns were growing up, and in 1854 an Act was passed for the establishment of municipal institutions in Victoria. This Act also continued in force till 1863, when its chief provisions were merged into the Municipal Corporations Act. Further improvements and extensions have been made from time to time in the Acts dealing with local government, and such government is now practically universal throughout Victoria, the whole area of the State (except French Island) being divided into urban or rural municipal districts. The former are called cities, towns, and boroughs and the latter shires.

The laws relating to local government were amended and consolidated by the *Local Government Act* 1915. The councils of municipalities have power to levy rates, which, together with licence-fees, subsidies received from the State, market dues, rents, and sanitary charges, form their chief sources of income. Their principal functions are to make, maintain, and control streets, roads, bridges, ferries, culverts, sewers, drains water-courses, and ietties within their respective boundaries; and under proper by-laws, to control the traffic and regulate the markets, pounds, abattoirs,

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baths, and places of recreation ; also to make arrangements for sewerage, lighting, water supply, and carrying on of noxious trades, and to act as local Boards of Health.

shires.

Any portion of Victoria, not exceeding in area nine square miles, and having no point in such area distant more cities, towns, square miles, and having no point in such area discard insta-boroughs, and than six miles from any other point therein, which contains at least 500 inhabitant householders, and rateable property

capable of yielding £300 per annum upon a rate of one shilling in the pound, may be constituted a borough. Any borough having during the preceding financial year a revenue of £10,000 may be declared a town; or, having a revenue of £20,000, may be declared a city. Any portion of Victoria containing rateable property capable of yielding £1,500 on a rate of one shilling in the pound may be constituted a shire. There are 52 cities, towns, and boroughs in Victoria, and 138 shires. The Governor in Council may unite any two or more boroughs which form one contiguous area so as to form one borough, notwithstanding that the area would exceed the limits above specified ; may unite any number of municipalities, one of which is a shire, which form one contiguous area, so as to form one shire, and may sever any portion of a municipal district and attach it to another, annex an outlying district, subdivide any municipal district into any number of divisions not exceeding eight, alter the boundaries, or abolish the subdivisions.

petition by twenty-five ratepayers resident in On Townships. any portion, not exceeding three square miles in extent, of any shire, and distant more than ten miles from the City of Melbourne, the Governor in Council may proclaim such portion a township.

Each municipality existing at the commencement of the Municipat original Act, 29th December, 1854-now incorporated in the counciliors. Act of 1915-is allowed the number of councillors then assigned to it; but in other cases the number must be some multiple of three, not less than six nor more than 24. The number is usually nine. If the district is subdivided, the number of councillors is three for each subdivision. If at any time in any municipality there is no council or there are not enough councillors to form a quorum, a commissioner may be appointed by the Governor in Council to exercise the powers of the council. Every person of either sex liable to be rated in respect of property in the municipal district of the rateable annual value of £20 at least, whether consisting of one or more tenements, is qualified to hold the office of councillor, with the exception of (a) undischarged bankrupts or insolvents; (b) persons attainted of treason or convicted of felony or perjury or any infamous crime; (c) persons of unsound mind; and (d) persons holding an office of profit under the council or participating directly or indirectly in a contract with the council. The election of councillors takes place

annually. One-third of the councillors retire each year by rotation, but retiring councillors may be re-elected. The councillors elect their own chairman; who, in the case of cities, towns, and boroughs, is called the mayor; in the case of shires, the president.

Municipal electors. Every person (male or female) 21 years of age or upwards liable to be rated in respect of property within a municipal district, in respect of which all rates, made before 10th

March of the year, have been paid by the 10th June, is entitled to be enrolled as a voter. Plurality of votes is allowed upon the following scale :----

# IN CITIES, TOWNS, AND BOROUGHS.

Properties	rated	at an	annual	value of	under £50	••	•• •	One vote.
,,	· ,,		,,	,,	£50 to £100	••	••	Two votes.
,,	,,		,,	,,	£100 and upwa	ards	••	Three votes.

#### IN SHIRES.

Properties r	ated	at an anr	ual valu	e of under £25	••	••.	One vote.
,,	· ,,	. ,,	* **	£25 to £75		•••	Two votes.
,,	· ,,	,,	,,	£75 and upw	vards		Three votes.

No person may be enrolled in respect of property rated under  $\pounds 5$  a year, unless there is a house on the property, and he resides there. The occupier and the owner are not to be both enrolled in respect of the same property, the former having the prior right to enrolment. Corporations liable to be rated may nominate not more than three persons to be enrolled in their stead, and joint occupiers and owners, not exceeding three, are each entitled to be enrolled. If there be more than three, then the three standing first on the last rate valuation or return are so entitled. No "immigrant" within the meaning of the Chinese Act 1915 is entitled to be enrolled unless he is a naturalized or natural-born subject. The Voting by Post Act 1915 may be made applicable to the elections for any municipality on the petition of the councillors.

Rateable property. All land situated in a municipal district is rateable property except the following :--Crown lands unoccupied

or used for public purposes; land used exclusively for commons, mines, public worship, mechanics' institutes, public libraries, cemeteries, primary free schools, technical schools subsidized by Government, and charitable purposes; land vested in or held by or in trust for any municipality or local governing body, or for commissioners under the Water Acts; and land vested in fee in the Railways Commissioners, Minister of Public Instruction, Board of Land and Works, Melbourne and Geelong Harbor Trusts Commissioners, Melbourne and Metropolitan Board of Works, and Geelong Waterworks and Sewerage Trust. The expression "land" includes, of course, all buildings and improvements thereon. For the purpose of rating the valuation of

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property is computed at its net annual value, that is to say, at the rent at which the same might reasonably be expected to let from year to year, free of all usual tenants' rates and taxes, and deducting therefrom the probable annual average cost of insurance and expenses (if any) necessary to maintain the property in a state to command such rent; provided that no rateable property shall be computed as of an annual value of less than £5 per centum upon the fair capital value of the fee-simple thereof. A council may, however, with the consent of the ratepayers at a poll to be held, if demanded, levy rates on the basis of the unimproved capital value of the land. In the case of certain Crown lands occupied (other than under lease) for pastoral purposes only the provision that the annual value must not be less than 5 per cent. on the capital value does not apply, and the occupier is rated on the actual net annual value of the property.

Rates general, separate, &c. Rates levied in municipal districts are of three kinds, viz. :--General, extra, and separate rates. General rates are levied at least once in each year by the council of every

municipality, and shall not exceed in any one year 2s. 6d. in the pound of the net annual value, or be less than 6d. in the pound of such value. Every general rate is made and levied on the occupier of the property rated, or, if there be no occupier, or the occupier be the Crown or a public or local body, then upon the owner of the property. Extra rates may be levied in any one or more subdivisions of a district, on requisition by not less than two-thirds of the councillors for the subdivision, provided that both rates together in any subdivision do not exceed 2s. 6d. in the pound. Extra rates are levied on all properties alike in the subdivision; but, where any works or undertakings are for the special benefit of any particular portion of the municipal district, " a separate rate " may be levied, with the consent of a majority of the occupiers, and of one-third at least of the owners of the properties affected. The rates to be levied may be differential, according to the benefits to be received by different properties, and the amount of the rate must be such as will, in the opinion of the council, suffice to provide for the payment of interest, and periodical repayments of, or sinking fund for, the loan raised on the security of such rate.

Several municipalities in the State have altered their system of rating, and for the year 1920-21 intend to levy the general rate on the unimproved capital value of land instead of on the net annual value of property. Authority for this change was given by an Act passed on 3rd February, 1914, and amended on 6th January, 1920.

Recovery of rates.

Under the provisions of the *Municipal Rates Recovery* Act 1916 power is given to any municipality to sell vacant land charged with rates unpaid for not less than 10 years and which has been unoccupied for more than 5 years.

Prior to the sale the owner of the land must be informed by registered

letter, and notices must be posted on the land and at the municipal offices for not less than one month.

Where under any Act a council is empowered to execute any work at the cost of the owners, or to require such owners to do so, a special improvement charge may be made on the

properties affected, on the security of which money may be borrowed for the carrying out of such work.

Incorporation of Melbourne and Geelong. Melbourne and Geelong—the latter of which for many years ranked next in importance to the metropolis—having been incorporated under special statutes prior to the establishment of municipal government on a large scale throughout the State, are not subject to the Local Government Acts except in a few comparatively unimportant particulars. Melbourne was incorporated as a town in 1842, and was ordained a city in 1847. Geelong was incorporated as a town in 1849, and proclaimed a city in 1910.

Amalgamation Under the provisions of the Local Government Acts of Amendment Act 1914 the following municipalities were united from 1st October, 1915 :--

#### BOROUGHS.

Majorca, united with Shire of Tullaroop. Carisbrook, united with Shire of Tullaroop. Raywood, united with Shire of Marong. Buninyong, united with Shire of Buninyong. Browns and Scarsdale, united with Shire of Grenville. Smythesdale, united with Shire of Grenville. Tarnagulla, united with Shire of Bet Bet. Malmsbury, united with Shire of Kyneton. Talbot, united with Shire of Talbot.

#### SHIRES.

Epping, united with Whittlesea. Mount Alexander, united with Newstead. Meredith, united with Bannockburn. Mount Franklin, united with Glenlyon. Templestowe, united with Doncaster. Merriang, united with Broadmeadows.

From 31st May, 1916, the undermentioned municipalities were united :--

#### BOROUGH.

Chewton, united with Shire of Metcalfe.

#### SHIRES.

Lancefield, united with Romsey. Springfield, united with Romsey.

From 1st October, 1918, the Shire of Walhalla was incorporated with the Shire of Narracan, and from 31st May, 1919, the Shire of Howqua was dissolved and part of it united with the Mansfield Shire and part with the Upper Yarra Shire.

A portion of the Shire of Moorabbin was excised on 26th New Municipalities. February, 1917, and constituted a separate municipality

with the title of Borough of Sandringham. Portions of the Shires of Colac, Heytesbury, and Winchelsea were excised on 6th May, 1919, and constituted a separate shire entitled Otway. On 18th May, 1920, a portion of the Shire of Dandenong was excised and a new borough entitled Borough of Carrum constituted. On the same date a portion of the Shire of Moorabbin was cut off and proclaimed a separate municipality with the title of Borough of Mentone and Mordialloc, and the central portion of the Shire of Mildura was constituted a municipality and named Borough of Mildura.

Municipalities: The total number of municipalities throughout the State in which local government was being administered at the end of the year 1919 was 190. Of these, 22 ranked as cities, 4 as towns, 26 as boroughs, and the remainder (138) as shires. The following is a summary of the estimated population, number of ratepayers, estimated number of dwellings (inhabited and uninhabited), total and annual value of rateable property, and annual revenue of cities, towns, boroughs, and shires in each of the five years ended 1919-20:---

Year.	Popula- tion.	Number of Rate-	Estimated of Dwell	e - 1	Estimated of Rateable I	Total Revenue.	
		payers.	In- habited.	Unin- habited.	Total.	Annual.	
Cities, Towns, and Boroughs—					· £	£	£
1915-16	824,170	208,759	182,445	3,293	149,235,137	8,335,553	1,407,021
191617	829,368	213,520	184,417	3,377	154,105,571	8,587,302	1,487,426
1917-18	844,970	219,076	189,459	3,265	158,777,843	8,912,303	1,598,643
1918–19	859,470	224,757	194,273	2,542	164,306,704	9,227,807	1,857,884
1919-20	877,880	228,518	197,753	1,394	172,838,636	9,687,320	
Shires—	1						
1915-16	617,587	184,374	137,799	3,619	169,724,979	8,606,509	847,206
1916-17	619,696	187,894	138,801	3,196	172,309,539	8,732,116	875,940
1917–18	613,380	186,551	138,366	2,716	172,558,872	8,735,794	927,901
1918-19	622,260	188,032	139,338	2,262	176,297,529	8,922,859	1,022,241
1919-20	628,420	188,892	140,049	1,869	184,599,186	9,340,172	
Total-							
1915-16	1,441,757	393,133	320,244	6,912	318,960,116	16,942,062	2,254,227
1916-17	1,449,064	401,414	323,218	6,573	326,415,110	17,319,418	2,363,366
1917-18	1,458,350	405,627	327,825	5,981	331,336,715	17,648,097	2,526,544
1918-19	1,481,730	412,789	333,611	4,804	340,604,233	18,150,666	2,880,125
1919-20	1,506,300	417,410	337,802	3,263	357,437,822	19,027,492	_,,

MUNICIPALITIES: 1915-16 TO 1919-20.

Increases in value of rateable properties and municipal revenue.

It will be observed from the following figures that there has been a very substantial increase in the estimated value of rateable property and in the revenue of municipalities during the period covered by the foregoing table :---

# INCREASE IN VALUE OF PROPERTIES AND IN MUNICIPAL REVENUE.

9 	<b>K</b>		Increase.	t n er
		1919–20 ove	r 1915-16.	1918-19 over 1915–16.
	2	Estimated Rateable I		Revenue from all sources.
		Total.	Annual	· · ·
Cities, Towns, and Boroughs Shires	· · ·	£ 23,603,499 14,874,207	£ 1,351,767 733,663	£ 450,863 175,035
Total Increase		38,477,706	2,085,430	625,898

The number of ratepayers returned for 1918–19 was 417,410, and the total capital value of rateable property £357,437,822, which is equivalent to about  $18\frac{3}{4}$  years' purchase on the basis of the annual value of £19,027,492.

Unimproved Value of Rateable Property, The estimated unimproved or ground value of rateable property in 1919-20 in cities, towns, and boroughs was

**Property.** £86,419,318, and in shires £123,066,124. Improvements are estimated at one-half in the case of urban and one-third in the case of rural properties, which are about the proportions that are found to prevail in New Zealand, according to the valuations of the Valuer-General. A table showing the estimated annual, capital, and unimproved values in urban and rural districts in Victoria for a series of years appears on page 397 of the Victorian Year-Book for 1916-17.

Properties rated in municipalities. The number of properties upon which the municipalities have levied rates during the past five years has steadily increased, as is shown in the appended statement :---

# NUMBER OF PROPERTIES RATED IN MUNICIPALITIES, 1915-16 TO 1919-20.

				Properties Rated.					
	Year.	· · ·	· 、	In Cities, Towns, and Boroughs.	In Shires.	Total.			
1915-16			]	248,100	255,958	504,058			
1916-17				251,050	260,297	511,347			
1917-18		•••		258,614	257.528	516,142			
1918-19				261,253	258,976	520,229			
1 <b>919</b> –20			.	266,559	263,106	529,665			

Cities, towns, and boroughs, 1919-20. The following is a statement of the estimated population, number of ratepayers, total and annual value of rateable property, annual endowment payable by the Government,

total revenue, and amount of rate levied in the £1 in each city, town, and borough in Victoria. The information relates to the municipal year, 1919–20, except as regards the items "revenue" and "annual endowment," the amounts of which are those for 1918–19 :---

CITIES, TOWNS, AND BOROUGHS, 1919-20.

	Estimated	Number	Amo o Gen	f eral	Estimated Rateable		Total.	Annual Endow- ment pay-	
Name.	Popula- tion.	Rate- payers.	Rate levied in the £1.		Total.	Annual.	Revenue 1918–19.	able by the Govern- ment.	
CITIES.			8.	d.	£	£	£	£	
Ballarat	20,160	5,443	2	3	2,616,315	174,421	37,876		
Bendigo	24,240	6,420	2	š	2,808,064	200,576	43,018		
Brighton	21,000	5,380	2	6	4,476,660	223,833	30,039		
Brunswick	40,890	8,761	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4	6,403,980	$3 \ge 0.199$	62,821	l	
Camberwell	21,000	6,141	2	6	5,511,860	275,593	42,502	·	
Caulfield	32,000	11,250	2	3	7,392,078	410,671	64,082		
Collingwood	35,750	7.657	2	Ó	5,153,050	309,183	37,130	• • •	
Essendon	36,000	9,750	2	6	5,332,880	266,644	42,434		
Fitzroy	35,700	7,687	1	8	6,567,768	364,876	39,100		
Footscray	31,200	9,100	2	4	5,280,040	264,002	62,356		
Geelong	14,850	4,300	2	6 5	2,937,600	146,880	33,377	• • •	
Hawthorn	28,320	7,024	2	5	6,644,120	332,206	47,108		
Malvern	31,000	8,000	. 2	3 2 3	7,692,600	384,630	71,592	• •	
Melbourne	108,070	29,877	1	2	47,827,600	2,391,380	575,881	•••	
Northcote	27,300	7,200	2	3	3,878,120	193,906	65,626	• •	
Port Melbourne	13,600	2,900	2	3	1,316,250	105,300	24,664	••	
Prahran	50,000	12,041	1	9	7,896,444	658,037	<b>80,</b> 834	••	
Richmond	41,700	9,391	$\frac{2}{2}$	3	6,594,408	366,356	51,138	••	
South Melbourne	49,000	10,340	2	0	10,607,200	530,360	76,782	••	
St. Kilda	35,450	8,769	2	0	6,090,144	507,512	65,723	• •	
Warrnambool	7,500	1,669	2	3	1,263,700	63,185	30,797	• •	
Williamstown	19,000	6,200	2	4	2,043,810	136,254	35,408	• •	
Towns.			Ŷ						
Ballarat East	15.230	3,759	2	3	1.255.650	83,710	17.307		
Coburg	16,140	6,682	$\frac{2}{2}$	3	1,939,545	129,303	24.424		
Kew	15,350	4,000	$\tilde{2}$	ĭ	2.297.505	153,167	27,098		
Sandringham	8,500	4.026	2	6	1,158,887	92,711	15,745		

	Estimated	Number of	Amount of General	Estimated Rateable 1		Total.	Annual Endow- ment pay-	
Name.	Popula- tion.	Rate- payers.	Rate levied in the £1.	Total.	Annual.	Revenue 1918–19.	able by the Govern- ment.	
BOROUGHS.			s. d.	£	£	£	£	
Ararat	4,800	1,065	26	262,600	26,260	13,912	25	
Castlemaine	6,100	1,390	26	462,925	37,034	7,197	25	
Clunes	1,540	483	19	56,140	8,020	3,170	38	
Creswick	1,830	570	1 9	71,110	7,111	3,138	38	
Daylesford	3,800	781	23	275,385	18,357	4,424	.25	
Dunolly	1,060	315	16	52,900	5,290	1,327	25	
Eaglehawk	7,250	1,600	$     \begin{array}{ccc}       2 & 3 \\       2 & 3     \end{array} $	303,948	25,329	7,529	25	
Echuca	4,000	1,090	23	297,500	23,800	7,183	25	
Geelong West	8,920	2,403		1,082,140	54,107	10,067	25	
Hamilton	5,000	1,166	2 3	736,040	36,802	8,862	25	
Horsham	4,500	815	26	493,000	29,000	5,987	50	
Inglewood	1,300	330	1 6	78,120	6,510	2,698	25	
Koroit	2,240	400	26	335,640	16,782	4,811	25	
Maryborough	4,900	1,172	16	256,960	25,696	5,201	25	
Newtown and						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Chilwell	6,920	1,743	24	1,012,640	50,632	7,279	25	
Oakleigh	5,200	2,063	26	1,046,560	52,328	9,715	50	
Portland	2,400	663	26	431,520	21,576	4,844	25	
Port Fairy	2,000	495	2 3 2 6	290,580	14,529	5,014	25	
Queenscliff	1,730	570	26	262.180	13,109	2,676	50	
Rutherglen	1,200	306	16	105,010	10,501	3,059	40	
Sale	3,700	987	19	410,540	20,527	9,210	25	
Sebastopol	2,200	461	20	89,616	7,468	1,485	40	
Stawell	4,410	900	23	184,300	18,430	9,917	25	
St. Arnaud	3,700	927	19	358,440	17,922	3,331	25	
Wangaratta	4,030	906	2 3	582,260	29,113	5,162	25	
Wonthaggi	4,200	1,150	2 0	314,304	26,192	5,824	••	
Total	877,880	228,518		172,838,636	9,687,320	1,857,884	756	

CITIES, TOWNS, AND BOROUGHS, 1919-20-continued.

Shires, 1919-20. The next table contains a list of the shires, and similar particulars to those shown for the cities, towns, and boroughs :---

SHIRES, 1919–20.

	Estimated	Number	Amount of General	Estimated Rateable I		Total.	Annual Endow- ment pay-	
Name.	Popula- tion.	Rate- payers.	Rate levied in the £1.	Total.	Annual.	Revenue 1918–19.	able by the Govern- ment.	
			s. d.	£	£	£	£	
Alberton	5,200	1,295	16	1,679,980	83,999	8,556	701	
Alexandra	3,250	717	1 7	1,014,440	50,722	6,307	390	
Arapiles	2,710 6,500	682 1,720	$     1 4 \\     1 6 $	837,980	41,899	3,297	153	
Ararat	4,000	1,475	16	3,233,360 795,280	$161,668 \\ 39.764$	12,467 4,153	645 240	
4 100	3.000	690	16	1.328.000	66,400	5,310	302	
Bacchus Marsh	3,300	743	1 6	849,800	42,490	4,559	204	
Bairnsdale	8,400	1.956	ĩě	1,993,840	99,692	11,425	709	
Ballan	4,100	1,200	16	716,260	35,813	3,505	286	
Ballarat	4,500	837	14	1,207,840	60,392	4,988	286	
Bannockburn	2,800	736	16	1,043,060	52,403	4,537	202	
Barrarbool	2,010	450	16	755,800	37,790	3,928	211	
Beechworth	6,000	1,495	19	349,092	29,091	8,618	. 271	
Belfast	2,600	652	16	1,179,360	58,968	5,070	328	

SHIRES.	1919 - 20	)continued.
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	K	JIIGES,	1010-2	io concen	ucu.		
	Estimated	Number	Amount of General	Estimated Rateable I		Total.	Annual Endow-
Name.	Popula- tion.	of Rate- paýers.	Rate levied in the £1.	Total.	Annual.	Revenue 1918-19.	ment pay- able by the Govern- ment.
			s. d.	£	£	£	£
The Discost of a	5,000	1,198	16	1,063,760	53,138	4,574	240
Bellarine Benalla	9,100	2,850	16	2,516,720	125,836	18,074	719
Berwick	8.200	2,700	16	1,903,920	95,196	9,035	496
Bet Bet Birchip	4,600 2,030	1,015 531	$\begin{array}{ccc} 1 & 3 \\ 1 & 0 \end{array}$	647,860 1,029,600	95,196 32,393 51,480	2,721 5,583	211 199
Borung	6,000	1.305	1 0	1,963,820	95,191	8.231	493
Braybrook	3,200	$2,256 \\ 1,375$	$\begin{array}{ccc} 1 & 6 \\ 1 & 7 \end{array}$	912,700 692,520	45,635 34,626	6,200 4,276	130 372
Bright Broadford	4,700 2,100	465	16	384,020	19,201 57,865	2,493	149
Broadmeadows	3,370	1,9/3	16	1,157,300 613,860	57,865	5,446	253
Bulla Buln Buln	$2,600 \\ 4,800$	400 1,420	$egin{array}{ccc} 1 & 6 \ 1 & 7 \end{array}$	1,243,660	00,090	$4,6\ell 0 \\ 7,323$	173 620
Buln Buln Bungaree	4,520	943	19	635,720	62,183 31,786	4,240	397
Buninyong .	6,350	1,762	17	1,260,240	63,012	6,267	298
Charlton	$3,350 \\ 3,150$	798 830	$\begin{array}{ccc} 1 & 3 \\ 1 & 0 \end{array}$	$1,062,300 \\ 470,340$	53,115 31,356	4,854 3,422	273 217
Colac	12.150	2,4.8	$1 \ 3$	4,901,860	245,083 76,269	26,431	595
Corio	3,080	1,077 1,625	$     1 6 \\     1 9 $	4,901,860 1,525,380 1,493,720	76,269 74,656	6,813 6,223	257
Cranbourne Creswick	7,450 5,000	1,025	$1 \ 9 \ 1 \ 0$	1,103,320	55,166	6,225 4,154	347 385
Dandenong	7,700	4,800	2 0	1,914,660	95,733 64,218	16.205	261
Deakin	3,400	985 1,256	$\begin{array}{ccc} 1 & 0 \\ 1 & 6 \end{array}$	1,284,360 1,710,500	64,218 85,525	3,775	221
Dimboola Donald	5,000 3,300	798	16	1,112,980	55,649	10,226 6,458	307 307
Doncaster	2,460	820	19	1,112,980 726,260 2,152,380	55,649 36,313 107,619	4,115	195
Dundas	3,040 5,000	1,123 1,093	1 6     1 0	2,152,380 2,327,540	107,619	8,261 8,134	521 616
Dunmunkle East Loddon	1,750	463	1 3	930,180	46.509	3,819	273
Eltham	3,500	1,423	2 3	824,500	41,225 55,742	5,030	209
Euroa Ferntree Gully	5,300 6,500	$1,136 \\ 3,250$	$     \begin{array}{c}       1 & 6 \\       2 & 6     \end{array} $	1,114,840 1.181.540	59,742 59,077	7,146 10,184	323 446
Flinders	3,800	2,900	16	1,181,540 1,036,740	51,837	6,146	129
Frankston and	9 750	,2,448	19	805 740	11 797	5,970	011
Hastings Gisborne	3,750 2,300	700	16	895,740 600,820	44,787 30,041	3,850	211 169
Glenelg	5,900	1,551	1 3	2,474,740	123.737	10,771	595
Glenlyon Gordon	5,380 3,800	$1,142 \\ 850$	$     \begin{array}{c}       1 & 3 \\       1 & 3     \end{array} $	319,450 1,038,840	$31,945 \\ 51,942$	2,913 4,966	225 367
Gordon Goulburn	3,000	568	1 0	670,040	33,502	3,116	173
Grenville	5,500	$1,400 \\ 2,200$	$   \begin{bmatrix}     1 & 3 \\     1 & 6   \end{bmatrix} $	8,5,985 5,529,560	54,399	5,166	301
Hampden Healesville	9,900 2,300	2,200		468,800	276,478 23,440	28,873 5,527	372 238
Heidelberg	13,4:0	6,300	16	2,756,520	137,826	36,507	247
Heytesbury	4,850	1,358	16	1,800,000	90,000	8,263 772	546 100
Howqua Huntly	3,500	985	1 0	948,160	47,408	4,011	199
Kara Kara 🛛	4,300	1,286	1 0	1,197,460	59,873	5,373	336
Karkarooc Keilor	5,500 1,000	1,353 6a0	1 0 1 4	2,381,600 470,740	119,080 23,537	9,200 1,863	471 50
Kerang	10,000	2,260	1 3	3,054,460 205,390	152.723	19,047	496
Kilmore	1,870	585	$     \begin{array}{c}       2 & 0 \\       1 & 3     \end{array} $	205,390	20,539 98,025	3,068	137
Korong Kowree	6,400 3,920	<b>1,480</b> <b>1,30</b> 1	12	1,960,500 1,342,784	98,025 83,924	6,459 6,717	323 432
Kyneton	8,600	2,160	16	1,355,500	67,775	10,771	367
Lawloit	3,400	630 580	19 16	550,575 1,029,700	36,705 51,485	4,070	197
Leigh Lexton	1,470 1,900	597		817,460	40.873	3,973 3,221	274 199
Lillydale	7,000	2,9:0	19	1,553,000	77,650 95,282	10,967	397
Lowan	4,250 4,550	$1,300 \\ 1,120$	$\begin{array}{ccc} 1 & 3 \\ 1 & 6 \end{array}$	1,905,640 1,431,460	$95,282 \\ 71,573$	5,379 9,090	298 485
Maffra Maldon	4,550 3,550	1,206	16	696,920	34.846	3,512	186
Mansfield	4,900	1,290	$2 \ 0$	1,264,100	63,205	9,214	446
Marong Melton	6,870 1,700	1,947 406	$\begin{array}{ccc} 1 & 3 \\ 1 & 3 \end{array}$	2,056,660 619,815	102,833 41.321	7,532 3,306	456 146
Metcalfe	3,720	1,052	10	756,540	41,321 37,827	2,674	163
Mildyra	9,000	1,640	$\begin{array}{c}2&3\\1&0\end{array}$	2,421,620	121,081	21,392	236
Minhamite	2,000	570	T O	1,613,400	80,670	5,765	323

# SHIRES, 1919–20—continued.

and a second sec							
	Estimated	Number of	Amount of General	Estimated Rateable 1		Total.	Annual Endow-
Name.	Popula- tion.	tion. Rate- have levied		Total.	Annual.	Revenue 1918–19.	ment pay- able by the Govern- ment.
			s. d.	£	£	£	£
Mirboo	1,460	350	16	496,000	24,800 83,526	2,665 27,709 4,325	357
Moorabbin	10,970 2,000	3,950 720	$19 \\ 19$	1,670,520	83,526	27,709	298 115
Mortlake	2,940	691	1 3	549,080 2,242,480	27,454 112,124	8,450	348
Morwell	3,500	849	16	889,060	44,453 79,795	4,790	437
Mount Rouse Mulgrave	2,170 3,200	720 1,130	$\begin{array}{ccc} 1 & 3 \\ 2 & 0 \end{array}$	1,595,900 796,220	79,795 39,811	6,557 5,704	199 223
McIvor	4,060	1,133	ĩõ	1,072,400	53,620	4,322	223
Narracan	6,300	1,627	16	1,465,780	73,289	8,649	928
Newham and Woodend	2,510	636	16	424,640	21,232	9 751	140
Newstead and		000		±2±,0±0		3,751	149
Mt. Alexander	4,000	1,003	1 3	548,740	27,437 121,770	2,456	167
Numurkah Nunawading	6,500	1,587	$\begin{array}{cccc} 1 & 0 \\ 2 & 4 \\ 2 & 0 \\ 2 & 0 \\ 1 & 6 \end{array}$	2,435,400 2,193,280	121,770	12,779	595
Nunawading	10,740 2,710	4,631 1,250		2,193,280 874,820	109,664 43,741	24,334 5,706	471 842
Orbost	3,500	923	20	845,480	42,274	5,666	474
Oxley	4,630	980	16	1,075,320	53,766	5,226	372
Phillip Island and Woolamai	4,000	2,350	20	1,261,300	63,065	7,503	446
Poowong and				1,201,000	00,000	1,000	440
Jeetho	7,800	1,750	16	2,067,360	103,368	13,118	990
Portland Preston	5,300 8,300	1,940 3,969	$\begin{array}{ccc} 1 & 3 \\ 2 & 3 \end{array}$	1,715,640	85,782	· 7,238	496
Pyalong	1,150	340	16	1,513,540 422,920	75,677 21,146	$19,589 \\ 1,772$	323 114
Ripon	4,550	1,190	1 3	1,762,800	88,140	8,046	223
Rochester	6,000	1,617	10	2,517,740	125,887	8,929	248
Rodney Romsey	7,000 3,750	1,659 840	$\begin{array}{ccc} 1 & 0 \\ 1 & 3 \end{array}$	$3,156,740 \\ 1,235,640$	157,837 61,782	9,126 5,109	434 322
Rosedale	4,100	1,100	1 3	1,589,980	79.499	6.498	540
Rutherglen	4,500	760	1 8	802.060	79,499 40,103	4,373	218
Seymour Shepparton	4,000 8,300	1,044 1,711	$     1 6 \\     1 3. $	1,023,880 2,289,300	51,194 114,468	5,589	422
South Barwon	3,000	1,410	$\frac{1}{2}$ $\frac{3}{0}$	679,560	33,978	10,689 4,647	471 138
South Gippsland	4,130	1,038	1 9	1,028,420	51,421	5,275	520
Stawell	3,700	1,232	1 3	1,455,720	72,786	5,258	310
Strathfieldsaye Swan Hill	$3,560 \\ 7,100$	$1,053 \\ 2,740$	$\begin{array}{c} 1 & 6 \\ 1 & 1 \end{array}$	469,540 2,319,680	23,477 115,984	2,581 11,391	$\begin{array}{c}138\\274\end{array}$
Talbot	2,000	578	$1 \frac{1}{4}$	462,400	23,120	3,287	135
Tambo	3,000	1,060	1 9	462,400 787,880	23,120 39,394 97,290	5,164	516
Towong Traralgon	6,350 3,360	$1,641 \\ 880$	$\begin{array}{ccc} 1 & 6 \\ 1 & 6 \end{array}$	1,945,800	97,290	11,856	891
Traraigon	4,200	1,150	10	981,140 562,770	49,057 37,518	7,907 3,591	443 207
Tungamah	5,470	1,562	10	1,759,440	87,972	7,063	446
Upper Yarra	3,650	1,090	$\begin{array}{ccc} 2 & 0 \\ 1 & 3 \end{array}$	586,320	29,316	5,019	223
Violet Town Walpeup	3,200 3,750	694 1,510	$\begin{array}{ccc} 1 & 3 \\ 1 & 6 \end{array}$	763,980 1,427,120	38,199 71,356	3,178 4,784	223
Wangaratta*	2,750	811	1 3	666,060	33,503	3,433	147
Wannon	2,750 2,770	803	10	2,041,460	33, 03 102,073 82,840	6,707	428
Waranga Warragul	5,000 4,000	$1,840 \\ 1,148$	$\begin{array}{ccc} 1 & 6 \\ 2 & 0 \end{array}$	1,656,800	82,840	8.147	872
Warragul	9,000	1,148	1 3	1,204,885 3,983,980	65,529 199,199	8,746 18,523	891 683
Werribee	5,250	4,000	19	1,603,120	80,156	10,266	298
Whittlesea Wimmera	3,620	1,004	16	1,200,000	60,000	5,502	228
Winchelsea	4,500 4,350	$1,050 \\ 1,376$	$\begin{array}{c} 1 & 0 \\ 1 & 6 \end{array}$	2,348,060 1,483,080	117,403	6,363 8,028	362 422
Wodonga	2,250	588	16	694,420	74,154 34,721 67,372	4,041	422
Woorayl	4,550	1,245	19	694,420 1,347,440	67,372	8,678	1,039
Wycheproof Yackandandah	4,500	1,118		1,311,140	65,557	6,352	229
Yarrawonga	4,150 3,320	903 820	16 10	775,820 750,000	38,791 37,500	4,332 4,803	339 28 <b>3</b>
Yea	2,600	700	16	876,900	43,845	6,110	283 379
Total	628,420	188,892		184,599,186	9,340,172	1,022,241	47,895

\* Formerly North Ovens.

Ratings in municipalities. The following is the number of cities, towns, and boroughs, and the number of shires in which rates were struck in each of the last five years at the amounts set down in the first column :---

			Numbe	r of Citi	es, Town	s, and Be	Number of Cities, Towns, and Boroughs.								
1	levia the	edi	1915–16.	1916-17.	1917-18.	1918-19.	1919-20.	1915-16.	1916-17.	1917–18.	1918-19.	1919-20.			
 8. 0	d. 6				1										
1	0	•••						58	53	38	24	23			
1	í.		•••					1		1	1	1			
1	2		1	1	1	1	1	•••	•••			1			
1	3		2				••	38	33	38	• 41	27			
1	<b>4</b> <sup>.</sup>		••	• • •		•••	••	2	. 4	5	4	4			
ι	6	]	4	5	5.	5.	4	26	31	- 35	43	50			
1	7			•••				1		2	3	. 3			
L	8		$^{2}$	1	2	1	. 1								
L	9		.4	5	3	4	õ	7	8	8	. 8	13			
11	0		••	2	. 1	1			· . 1	1					
2	0		19	17	16	10	5	7.	7	7	9	- 11			
2	1		2	2	2	1	•1	••							
2	2		1	1	4	4	• ••	: 1	1	1	1				
2	3		11	11	12	16	17	••		1	1	3			
2	4	•••	4	4	3	ā	5	•••		· · ·		1			
2	5		<i>.</i>	•••	·		1	••							
2	6		2	2	2	4	12	•••	1.	2	3	1			
г	lota	1.:	52	51	52	52	52	141	139	139	138	138			

RATINGS IN MUNICIPALITIES, 1915–16 TO 1919–20.

The figures for the quinquennial period give an average rating of 2s.  $1\frac{3}{4}d$ . in the £1 in cities, towns, and boroughs, and of 1s.  $5\frac{1}{4}d$ . in shires. The average rating in the urban districts is thus shown to be  $8\frac{1}{2}d$ . in the £1 more than in the rural districts. It will be observed that only one municipality during the last five years imposed the minimum rate allowed by law, viz., 6d., but that a fair number reached the maximum of 2s. 6d. in the £1.

A table showing the proportionate number of properties at different rateable values in the years 1901-2, 1905-6, and 1909-10 appears on page 261 of the *Year-Book* for 1916-17.

Municipal revenue and expenditure. The ordinary revenue and expenditure for each of the last three financial years were as follows :---

<b>REVENUE</b> AND	EXPENDITURE OF	MUNICIPALITIES,
	1917 TO 1919.	

Sources of	Revenue.		l	1917.	1918.	1919.
Taxation -				£	£	£
Rates	··· <b>·</b>			1,395,723	1,462,640	1,560,968
Licences				108,651	109,916	136,517
Dog Fees			• •	20,883	21,481	21,074
Government Endowme	ent and G	rants		68,364	62,460	96,429
Contributions for Stree	ets, Footr	oaths, &	e	54,620	63,910	93,900
Market and Weighbrid				67,726	71,737	85,240
Sanitary Charges				96,484	101,791	101,996
Rents				62,953	65,821	69,845
Electric Light and Ga	s Works			h '		1 385,727
Other Sources				\$ 487,962	566,788	328,429
o mor sources						
Total			•••	2,363,366	2,526,544	2,880,125
Heads of E	xpenditure.					
Salaries, &c.				210,034	214,797	226,692
Sanitary Work, Street	: Cleansin	 		243,774	244,984	248,956
Lighting				97,685	98,511	100,679
Contributions to Fire	Brigades			33,939	32,786	35,120
Public Works-	Disguade			00,000	02,100	00,120
Construction				200,151	232,977	294,874
Maintenance				1		1 869,946
Electric Light and Ga	s Works			897,136	1,046,474	282,301
Formation of Private	Streets. &			63,499	75,474	111,125
Redemption of Loans				112,020	124,797	137,688
Interest on Loans				*274,113	277.435	257,057
Charities				20,350	19,977	21,103
Other Expenditure	•••			186,310	178,043	332,347
Total	••••			2,339,011	2,546,255	2,917,888

As compared with 1918, the revenue of 1919 increased by £353,581. as follows :- Rates increased by £98,328, sanitary charges by £205, contributions for streets, footpaths, &c., by £29,990, rents by £4,024, licences by £26,601, market and weighbridge dues by £13,503, Government endowment and grants by £33,969, and "other sources" (including electric light and gas works), by £147,368. The revenue from dog fees decreased by £407. The expenditure was in excess of the amount for the previous year by £371,633. The following items showed increases :---Salaries, £11,895; sanitary work and street cleansing, £3,972; lighting, £2,168; contributions to fire brigades boards, £2,334; formation of private streets, £35,651; public works construction, £61,897; public works maintenance (including expenditure on electric light and gas works), £105,773; redemption of loans, £12,891; charities, £1,126; and other expenditure, There was a decrease under the heading of interest  $\pounds 154.304.$ amounting to £20,378.

Fifty-four per cent. of municipal revenue in 1919 was derived from rates, 14 per cent from electric light and gas ised works, 5 per cent. from licences of all kinds, 3 per cent. from market and weighbridge dues, 1 per cent. from dog fees, 3 per cent. from Government endowments and grants,

3 per cent. from contributions for streets, footpaths, &c., 4 per cent. from sanitary charges, 2 per cent. from rents, and 11 per cent. from all "other sources."

salaries. In 1919 the salaries of the municipal officers amounted to £226,692, or about 8 per cent. of the entire revenue.

A sum of £21,103, or less than 1 per cent. of the revenue, was devoted to the local charities; the greater part of this dishurst the product of the second second

disbursement was in aid of hospitals, benevolent asylums and associations, and orphan asylums.

Assets and Habilities of the municipalities are shown below under three heads—(1) Municipal Fund, (2) Loan Fund, (3) Property; and the liabilities under two heads—(1) Municipal Fund, (2) Loan Fund.

# MUNICIPAL ASSETS AND LIABILITIES, 1917 TO 1919.

	1	1	1 .
Assets.	1917.	1918.	1919.
	-		-
Municipal Fund—	£	£	£
Uncollected Rates	138,617	132,217	133,585
Other Assets	442,388	427,046	550,283
Loan Funds—			
Sinking Funds-		1	<u>}</u> ∙
Amount at Credit	745,784	596,550	465,132
Arrears Due	1 720	5,054	1.093
Unexpended Balances	000 000	238,906	204,761
Property—		,,	
Halls, Buildings, Markets, &c.	2,942,062	2,952,105	2,955,345
Waterworks	6550 060	268,815	271.581
Gasworks	100 015	110,819	114,505
Electric Light Works	006 059	919,127	982,723
Total Assets	. 5,824,331	5,650.639	5,679,008
Liabilities .	1917.	1918.	1919.
Municipal Fund—			£
	£ 98,538	28,115	64.037
	1 800	5.054	1.093
	1 01 105	6,920	6,611
	099,160	317,410	484,785
O(1.) T'-1/19/200	000 100	269,947	280,475
Loan Funds—	. 200,100	200,041	400,475
	6,030,343	5 761 050	5 041 400
Loans Outstanding		5,764,050	5,041,429
Due on Loan Contracts	. 42,428	47,145	129, 92
Total Liabilities	. 6,663,815	6,488,641	6,007,622

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Local

charities.

Proportion of municipal revenue raised from different sources. Municipal assets and liabilities compared. The total of the assets of municipalities in 1919 was £5,679,008, and of the liabilities £6,007,622. The aggregate of the current liabilities (Municipal Fund) was £837,001,

against which there were assets amounting to £683,868. The gross liability on account of loan expenditure for works completed and in progress was £5,170,621, which, after deducting sinking funds and unexpended balances, was reduced to £4,499,635. If credit were taken for the value of municipal properties in markets, halls, buildings, gasworks, electric light works, water works, &c. (£4,324,154), the net burden on account of loan moneys would be £175,481.

The valuation of municipal properties is probably an under-estimate, as the particulars furnished under this heading were not in every case complete.

An annual endowment to municipalities of £310,000 Endowment of was authorized by the Local Government Act 1874, and it ceased to be payable in 1879. A subsidy, however, in lieu of such endowment, amounting to £310,000, was voted by Parliament annually, and this vote was gradually increased until £450,000 was reached in 1889-90 and 1890-91. Under the Local Government Act 1891, £450,000 was provided as an annual endowment for the municipalities. This amount was reduced to £405,000 per annum from 1st January, 1893; to £310,000 from 1st July, 1893; to £100,000 from 1st July, 1894; and to £50,000 from 1st July, 1902. Under Act No. 2025 it was increased to £75,000 for the year 1906-07, and from the 1st July, 1907, it was increased under Act No. 2129 to Payments were made on the basis of this amount to 30th £100,000. June, 1915, but for the five succeeding financial years it was reduced to £50,000 under the authority of Acts passed periodically. The endowment is payable in equal moieties in March and September of each year, and no city or town is entitled to receive any part of it. The distribution amongst the boroughs and shires is based on the amount of general and extra rates received during the twelve months ended on the preceding 30th September, according to the following scale :--

То	every	borough or first-cla	ss shire		3s. ir	the £1.
	,, ·	second-class shire		•••	5s.	,,
	"	third-class shire	••	••	6s.	"
	,,	fourth-class shire	•••	••	8s.	, <b>, ,</b> , , , , , , , , , , , , , , , ,
	.,,	fifth-class shire	••	••	10s.	
	,,	sixth-class shire		••	12s.	, , , , , , , , , , , , , , , , , , ,

#### RATING ON UNIMPROVED VALUES BY MUNICIPALITIES.

Rating on unimproved values. An Act was passed by the State Parliament on 3rd February, 1914, to provide for optional rating by municipalities on the basis of the unimproved values of rateable This measure did not come into operation until 1st October,

property. 1915.

Any municipality may adopt the method of rating set forth in the Act, but two months before doing so it must publish in the Government Gazette and twice in some newspaper circulating in the district a notice of its intention to take such a course. If one-tenth of the ratepayers in writing demand a poll the proposal must be submitted by the council to the ratepayers, and it shall not be deemed to be carried unless affirmed by a majority of the valid votes recorded, and unless the number of valid votes recorded forms at least one-third of the number of persons on the roll. Where a council of a municipality has not published a notice that it intends to adopt the Act one-tenth of the ratepayers may demand a poll. If a proposal is adopted or rescinded it cannot be again submitted to the ratepayers for three years. Special properties such as railways, tramways, waterworks, hydraulic works, electric light and power works, gas works, and any undertaking extending continuously beyond the boundaries of any municipal district which is subject to more than one separate valuation, although there is no actual separation of the different parts of the property, are not rateable on unimproved values.

By an amending Act (No. 3045), passed on 6th January, 1920, power is given to the municipalities to adopt the principle of rating on unimproved values, notwithstanding that an order has not been made under section 4 of the Principal Act which requires that on adoption of such principle the valuations of land made by assessors under the Land Act 1915 shall be the basis on which the taxation is levied. Several municipalities in the State will levy the general rate for the year 1920-21 under the new system.

#### WORKERS' DWELLINGS.

An Act to enable municipal councils to provide workers' Workers' dwellings. dwellings was passed by the State Parliament in February. 1914, and has been incorporated in the Local Government

Act 1915.

The council of any municipality may purchase or take compulsorily any land in the municipal district regarded as suitable for the erection of dwelling-houses. The houses are to be leased to persons who are not owners of dwelling houses in Victoria or elsewhere and who are not in receipt of incomes of more than £200 a year. Sub-letting by tenants is not permitted. In fixing rents of dwelling houses account is to be taken of interest, depreciation, rates, repairs, and insurance. Before constructing new houses plans showing the classes of houses to be built are to be submitted for the approval of the Governor in The amount that may be borrowed for the purposes of the Council. Act by any one municipality is not to exceed £50,000. Power is given to increase the general rate to recoup advances from the municipal fund, but as far as practicable all advances are to be repaid out of the profits accruing from transactions under the Act. Once in every

year a balance-sheet must be prepared showing receipts and expenditure relating to all operations undertaken during the previous year, also assets and liabilities.

#### COUNTRY ROADS BOARD.

With the object of improving the main roads of the State Gountry Roads an Act was passed on 23rd December, 1912 (Consolidated Act No. 2635), which empowers the Governor in Council to

appoint a board to consist of three members. The chairman is to be paid an annual salary not exceeding £1,000, and each of the other members a salary not exceeding £700 (Act No. 2986).

**Duties.** The duties of the board are to ascertain by survey and investigation what roads are main roads; the nature and extent of the resources of Victoria in metals, minerals, and materials suitable for the purposes of road-making and maintenance, and the most effective and economical methods of dealing with the same, and of supplying and utilizing the material in any part of Victoria; the most effective methods of road construction and maintenance; what deviations (if any) in existing roads or what new roads should be made so as to facilitate communication and improve the conditions of traffic; and to record, publish, and make available for general information the results of all such surveys and investigations. The duty of furnishing information that may be required is imposed on the municipal authorities.

The construction of permanent works and the maintenance of main roads are likewise to be carried out by the municipalities to the satisfaction of the board, but power is reserved to the Governor in Council to direct that permanent works and maintenance shall be carried out by the board.

For the purpose of making permanent works, power is Finance. given to the Governor in Council to issue stock or debentures to the amount of £400,000 a year for five years, and the principal and interest are a charge upon the Consolidated Revenue of the State. The money so raised is to be placed to the credit of an account to be called "The Country Roads Loan Account," which will be debited with all payments made by the Treasurer towards the cost of permanent works. A sinking fund of 1 per cent. per annum on half the amount borrowed is authorized to be paid out of the Consolidated Revenue until half the amount borrowed is redeemed. The total cost of the works, in the first instance, is to be paid by the Treasury, but subsequently half the amount expended is to be refunded by the municipalities affected. In the case of expenditure on permanent works an annual payment to the Treasurer of 6 per cent. on the amount due by each municipality is provided for, and the cost of maintenance

allocated to each municipality must be paid out of the municipal fund before the 1st July in each year. A special rate not to exceed 6d. in the  $\pounds 1$  on the net annual value of rateable property, to meet the cost of permanent works, may be levied in any ward or riding of a municipality as the council may direct. In the event of default of payment by a municipality the board may levy a rate to meet the amount owing. All fees and fines paid under the Motor Car Act, all moneys standing to the credit of the Municipal Fees and Fines Trust Fund, all fees paid on the registration or renewal of the registration of traction engines, and all fees received by the Crown after the 30th June, 1912, under the Unused Roads and Water Frontages Act 1903 (incorporated in the Local Government Act 1915), are to be credited to the Country Roads Board Fund.

Since the appointment of the Board in March, 1913, the members have inspected the principal highways throughout the State. Every Shire Council and Borough Council with which the Board is likely to have dealings relating to the construction or maintenance of roads declared main roads under the Act has been interviewed and the provisions of the Act have been explained to it.

During the year 1918-19 constructional work to the value of £284,734, and maintenance work involving an expenditure of £179,133, were undertaken.

A system for the continuous maintenance of all main roads has also been evolved, by which it is hoped that those that are now being constructed or reconstructed will be kept in good condition, while those that are in a fair state of efficiency will be kept up to that standard.

As soon as practicable after the termination of each year the board must present a report to the Minister setting forth its proceedings, the permanent works constructed, the mileage of the roads maintained, and an account of all moneys received and expended under the provisions of the Act.

Registration of motors, ac. The rates of fees on registration or renewal of registration of motor cars, motor cycles, and traction engines are as follows:—The owners of motor cycles must pay an annual registration fee of 5s.; of traction engines, £3 3s.; and of

motor cars, £1 1s. to £6 6s., according to the horse-power of the vehicles.

Realizing that a scheme for dealing with the principal **Developmental** arteries of traffic only, in a young country that needed development, was inadequate, the Government in 1918 provided a further sum of £500,000 for a system of subsidiary or developmental roads (Act No. 2944). This sum was subsequently increased to £2,000,000 (Act No. 2985). Under this scheme the State provides the whole of the money and makes provision out of State funds for liquidating the liability. The municipalities are required, however, to bear a proportion of the interest on the outlay during the period of the loan. The amount expended under Act No. 2944 during the year ended 30th June, 1919, was £47,562.

# COUNTRY ROADS BOARD FUND.

STATEMENT OF REVENUE AND EXPENDITURE FOR THE YEAR ENDED 30TH JUNE, 1919.

in the second second	Revenu	s.			Expe	nditus	re.					
	£	. d.	£ s. d	£ 8. d.		£	s. d.	£	s. d		4. 6	đ.
Balance 1st July, 1918				60,622 18 10	To Maintenance Works General			90,545	16 1	0		
Motor Car Act No. 2237-				· · ·	"Maintenance Works—							
Registration Fees	65.61 <del>4</del>	20			Woods Point Road	819						
Licence Fees	3,710 1				Walhalla Road	150	8 4	ł				
Fines.	2,488 1				Omeo-Glen Wills Road	166	8 5					
					Omeo Road	166	6 4					
	71,813 1	0 1			Genoa-Eden Road	106	2 4					
Less Refunds and Costs	, 1,010 1				Genoa-Gipsy Point Road	11	66					
of Administration	4,147 1	36			Orbost-Genoa Road	1.892	15 11					
			67.665 16 7	*		-,						
Unused Roads and Water			011000 10 1			3,812	15 5					
Frontages Act No. 1894-					Less Half Cost, to be borne		20 0					
Licences	23,581 1	8 7			by Fund	1.656	79	<u>,</u>				
Less Refunds and Cost	20,001 1	• •				-,000	<u> </u>	- 1,656	7	8		
of Administration	1,207 1	7 9						-,000		- 92,202	4	6
or Automation autom	1,201 1		22.374 0 11		Investigation Surveys			304	2	8		e.
Country Roads Act No.			011 0 11		"Metal Investigation				13			
2415—									6			
Traction Engine Licences			840 14 0					50	12			
	••		71 18 9		,, wages		•		14		14	è
Forfeited Deposits	••		13 18 10		Contributions to Sinking Fund			10,226	17		*4	9
Material, Sale of			13 18 10				•• .	30.680				-
Plant Earnings	4,531				" Interest on Loans		••	av,080	11		8	77
Less Working Costs	2,804 1	4 3		*	C. D. D			12	2	<b>40,9</b> 07 9	8	1
			1,726 11 8		" Camp Equipment		••					
Plant, Sale of	••		187 15 0		" Instruments Account		••	13				
Plans, Sale of			85 4 9		,, Insurance of Employees		1.1.1	214		6		
Permanent Works-					" Motor Expenses		••	383	9			
Contributions payable by					" Office Furniture			24	3			
Municipalities			37,988 10 11		" Office Expenses				11 1			
Country Roads Act No.					"Plant Purchased			1,107		5		
2986-					,, Plans Purchased			130				
Appropriation for Main-					" Postage and Telegrams, &c.		••		16	1		
tenance of Main Roads			50,000 0 0		" Printing and Stationery		• •	585				
Maintenance Works Ap-					" Salaries Account		• •	9,174				
portioned Expenditure					"Storeyard Expenses				11 9			
Written Back			50 0 0		., Travelling Expense				15			
				181,004 11 5	., Prosecutions for Breaches of Act	;		7	13 5	2		
										12,894	9	9
				*	Balance					94,988	12	9
				£241,627 10 3						£241,627	10	

# Municipal Statistics

The

following

1S

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and

Loan receipts and expenditure. The expenditure out of loan money on the construction of permanent works (main roads) for the year ended 30th June, 1919, is shown below :---

# COUNTRY ROADS BOARD LOAN ACCOUNT.

#### YEAR ENDED 30TH JUNE, 1919.

Receipts.				Expenditure.
·	£	<b>s</b> .	d.	£ . d.
To Proceeds of Loans	343,557	13	10	By Permanent Works 284,734 7 11
,, Advance from Country Roads Board Fund	286,826	7	5	" Temporary Advances—Country Roads Fund refunded 272,358 17 11
" Suspense Account	19	0	0	"Public Account Advances Ac- count 8,185 6 0
				"Balance 65,124 9 5
	£63 <b>0,</b> 403	1	3	£630,403 1 3

Developmental Roads Loan Account.

The following statement shows, for the year ended 30th June, 1919, the expenditure out of loan funds on the construction of developmental roads, under the provisions

of Act No. 2944 :---

# DEVELOPMENTAL ROADS LOAN ACCOUNT.

#### YEAR ENDED 30TH JUNE, 1919.

Receipts.					Expenditure.	
		£	<i>s</i> .	d.	£ s. d. £ 's. d	
To Proceeds of Loans	••	44,600	0	0	By Expenditure 47,647 10 5	
,, Advances from Count Roads Board Fund	t <b>ry</b> 	8,708			Less Refunds, &c. 86 0 1	4
,, Balance	••	4,664	7	8	,, Refunds of Temporary Advances from Country Roads Board Fund 10,411 14	7
		£57,973	. 4	11	£57,973 4 11	-

LICENSING FUND.

Licensing fund. The following is a statement of the receipts and expendi ture of the Licensing Fund for the year ended 30th June, 1919:—

# LICENSING FUND.—RECEIPTS AND EXPENDITURE, 1918–1919.

RECEIPTS.

#### EXPENDITURE.

£         s. d.           Balance, 30th June,         Salaries and expenses           1918          1,213         0         4         of Board and office,           Fees          2,236         11         6         &c.	£ 3,959		d.
1918 1,213 0 4 of Board and office,			
Fees 2.236 11 6 &c			
	E 010	2	6
	5,818	11	<b>5</b>
Sale of confiscated Annual payment to			
	9,321	0	0
	7,967	0	0
and Grocers 17,579 18 6 Transferred to Police			
Victuallers 125,946 17 3 Superannuation			
g Temporary 1,929 3 3 Fund under section			
Z Railway Refresh- 44 of Act No. 2855 2	3,000	0	0
a       1 remporary       1,929       3       3       Fund under section         a       Railway Refresh-       44 of Act No. 2855       2         b       ment Rooms       1,487       12       5         c       Packet       109       1       6			
	3,000	0	0
Australian Wine 2,567 4 6 Balance £44,275 14 1			
Billiard-table 2,586 6 8 Deduct			
Brewers 115 13 6 Invest-			
Vignerons 115 0 0 ments			
Club certificates 3,314 16 0 in Stock 42,000 0 0			
	2,275	14	1
,, Extended			
Hours 20 0 0			
Expenses of holding			
extended annual			
sitting of court 3 11 0			
Compensation			
assessments $\dots$ Dr.2 10 0			
Sale of rolls 4 0 0			
Interest 456 13 11			
Total £165,341 8 0 Total £16	5,341	8	0

Licence fees.

In addition to the endowment of £50,000 the municipalities received from the Government in 1918-19 a sum of

£69,321 out of the Licensing Fund under Act No. 2683, section 313, this being the equivalent for (1) fees for licences; (2) fees for the registration of brewers and spirit merchants; and (3) fines, penalties,

and forfeitures incurred under the *Licensing Act* 1915. The particulars of this payment are as follows :—

EQUIVALENT FOR LICENCE FEES, ETC., 1918-19.

						£	8.	d.
Paid to Ci	ties					31,948	0	0
,, T	owns	••••		•••		2,600	0	0
,, B	oroug	ghs		• • • •		8,747	0	0
,, SI	nires-							
4	lst	Class				288	0	0
	2nd	,,		·		11,600	,0	0
	3rd	,,			•••	9,569	0	0
	4th	,,		•••		633	0	0
	5th	,,		•••		3,312	0	0
	6th	,,,		•••		1,455	Ò	0
	T	otal			• • • •	70,152	0	0
Add payments	on a	ccount	of 1917–18			231	0	0
Deduct unpaid	acco	ounts o	f 1918-19			1,062	0	0
	A	mount	paid in 191	8-19	·	69,321	0	0

# MUNICIPAL LOANS.

Moneys may be borrowed by municipalities for permanent works or undertakings or to liquidate the principal moneys owing by the municipality on account of any previous loan. Permanent works include the construction or alteration of streets, roads, bridges, culverts, levees, ferries, jetties, sewers, and drains, the construction or purchase of waterworks, electric light works and gasworks, municipal offices, pounds, abattoirs, sheep dips, market places and houses, weighbridges, workers' dwellings, baths, pleasure grounds, libraries, museums, and places of public resort and recreation; the construction and establishment of hospitals, asylums, and other buildings for charitable purposes.

the construction and laying down of any track, way, or pavement of iron, steel, wood, or stone, the erection of machinery for the treatment of refuse or night-soil, or for quarrying or crushing stone, the works and undertakings connected with the reclamation and improvement of low-lying or over-crowded areas, and the purchase of land or any easement, term, or privilege in, over, or affecting land compulsorily taken for any of the foregoing purposes.

In connexion with loans raised by municipalities, section 375 of the *Local Government Act* 1915 provides that, when any municipality incurs a loan and the debentures are payable in different years, the Council shall obtain from the Auditor-General a certificate, in writing, that the amounts proposed to be provided in each year will be sufficient to pay all principal moneys and interest as they fall due. The repayments of principal have to be so provided for, that each year of the currency of the loan shall bear its full share towards liquidation.

Councils may borrow for not more than 40 years upon the credit of the municipality for permanent works or undertakings or to liquidate moneys owing on account of any previous loan.

The amount of money borrowed by any municipality is not to exceed ten times the average income of the municipality for the previous three years from general rates not exceeding 1s. 6d. in the £1. But, in addition, loans having a currency of not more than 30 years may be raised upon the security of certain income and not upon the credit of the municipality, by the issue of debentures or by mortgage. These loans are not to exceed five times the average amount of such income.

Power is given to any twenty persons whose names are inscribed on the municipal roll to demand the submission of any loan proposal to a poll of the ratepayers.

Municipal indebtedness. The total loan indebtedness of the municipalities at the end of their financial year was £5,041,429, which was due to the Government and the public respectively, as follows :----

		Due to the Government.	Due to the Public
Cities, Towns, and Boroughs Shires	•••	£ 1,268,673 234, <b>2</b> 26	£ 2,909,527 629,003
Total		1,502,899	3,538,530

#### MUNICIPAL INDEBTEDNESS, 1919.

Municipal Ioan The succeeding statements show the loan receipts and expenditure. expenditure :---

# MUNICIPAL LOAN RECEIPTS AND EXPENDITURE, 1919.

		Cities,Towns, and Boroughs.	Shires,	Total.
		£	£	£
Receipts during the year	•••	123,135	~ 39,467	162,602
Balance unexpended from previous year		211,519	25,267	236,786
Expenditure during the year		150,137	44,490	194,627
Balance unexpended at the end of 1919		184,517	20,244	204,761

Municipal loan expenditure, 1915 to 1919. The municipal expenditure of loan moneys during the year 1919 amounted to £194,627, of which £150,137 was spent by cities, towns, and boroughs, and £44,490 by shires. The following return shows the loan receipts and expenditure for five years :--

# MUNICIPAL LOAN RECEIPTS AND EXPENDITURE : RETURN FOR FIVE YEARS.

Year.			Receipts.	Expenditure.
			£	£
1915			460,228	 439,973
1916			500,312	 549,714
1917		•••	402,965	 290,824
1918			149,860	 190,184
1919	•••	••••	162,602	 194,627

Leans raised by municipalities, 1919. The loan receipts for the year 1918-19 amounted to £162,602, of which £19,286 was obtained from the Government. The unexpended balance of loan moneys at the end

of the year 1918-19 was  $\pounds 204,761$ - $\pounds 184,517$  to the credit of cities, towns, and boroughs, and  $\pounds 20,244$  to the credit of shires. The following are the particulars :--

allarat endigo runswick amberwell aulfield oburg oblingwood unolly chuca ssendon itzroy eelong eelong We awthorn	· · · · · · · · · · · · · · · · · · ·	)ROUGHS	8	· · · · · · · · · · · · · · ·	Government. £ 6,186      	Public. £ 1,500   13,000  	of Loan Moneys. £ 1,421 277 700 2,745 2,534 712 5,911 780 67 168 1,449
rarat allarat endigo runswick amberwell aulfield oburg ollingwood unolly chuca ssendon tzroy eelong eelong We awthorn	· · · · · · · · · · · · · · · · · · ·	DROUGHS	S       	· · · · · · · · · · ·	6,186	1,500    13,000 	1,421 277 700 2,745 2,534 712 5,911 780 67 168
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runswick amberwell aulfield oburg ollingwood unolly chuca ssendon tzroy eelong eelong We awthorn	· · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · ·	13,000 . · 	2,745 2,534 712 5,911 780 67 168
amberwell aulfield oburg ollingwood unolly chuca ssendon itzroy eelong eelong We awthorn	•••	··· ·· ·· ·· ··	··· ··· ··· ··· ···	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	13,000  	2,534 712 5,911 780 67 168
aulfield bburg bllingwood unolly chuca ssendon itzroy eelong eelong We awthorn	•••	··· ··· ··· ··· ···	••• •• •• •• ••	· • · • · •	• • • • • • • •	13,000  	712 5,911 780 67 168
bburg blingwood unolly chuca ssendon itzroy eelong eelong We awthorn	•••	· · · · · · · · · · ·	••• •• •• ••	••• •• ••	••	13,000  	5,911 780 67 168
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unolly chuca ssendon itzroy celong celong We awthorn	•••	· · · · · · · · ·	•••	•••	· · · · · · · · · · · · · · · · · · ·	••	67 168
chuca ssendon itzroy eelong eelong We awthorn		••• ••• •••	••	••			168
ssendon itzroy eelong eelong We awthorn		• • • • • •	••	••		• •	
itzroy celong celong We awthorn		• • • • • •	••	• -		•••	1.449
eelong eelong We awthorn							
eelong We awthorn		••					876
awthorn	st		• •			1,000	1,289
awthorn						4,500	2,400
			••			25,000	29,742
ew		••	••			10,000	16,736
alvern	•••	••	••		12,500	10,000	11,737
aryboroug	h	••	••	••	1 1	••	365
elbourne		••	••	••		35,949*	84,227
ewtown ar			••	••		4,500	356
		wen	•••	••		,	123
	••	••	••	••	]	••	
	••	••	• •	••		••	434
	• •	••	••	••		••	19
	Ime	••	• •	••		· • •	1,201
		••	• •	••	· · ·	••	10,762
		••					127
			÷.		· · · /	••	13
			• •			9,000	
	ourne						2,617
. Kilda		·		·			3,583
angaratta						••	156
							574
		•••				••	416
Total		••	•••		18,686	104,449	184,517
	rt Melbou cahran leenscliff ichmond ndringhan uth Melbo . Kilda angaratta arrnambo illiamstow	ort Melbourne ahran leenscliff chmond ndringham outh Melbourne	rt Melbourne ahran teenscliff ichmond ndringham uth Melbourne . Kilda angaratta arrnambool illiamstown	rt Melbourne	rt Melbourne	ort Melbourne ahran teenscliff ichmond ndringham uth Melbourne . Kilda angaratta armambool illiamstown	ahran            ahran             ichmond             achmond             andringham          9,000         uth Melbourne

# LOANS TO MUNICIPALITIES, 1919.

\* Amount transferred from Electric Supply Depreciation and Renewals Fund to Loan and Capital Accounts.

			÷	-	Loans fr	om—	Unexpende Balance
		·			Government.	Public.	of Loan Moneys.
н	RES-				£	£	£
	Barrarbool					2,026	
	Bright						1,449
	Colac						134
	Corio					2,300	417
	Dandenong						117
	Eltham						454
	Ferntree Gully	· • • •				• •	230
	Flinders					3,600	
	Heidelberg		••			14,000	4,670
	Huntly .					••	948
	Kyneton						11
	Lillydale					3,200	3,571
	Maffra						1,738
	Mansfield					300	203
	Melton					••	200
	Mildura					2,000	900
	Mulgrave	•••	• •				73
	Nunawading		• • •			4,000	267
	Omeo					1,500	
	Preston		• •	• •			282
	Romsey .				1	1,000	
	Shepparton					· • ·	643
	South Barwon					3,016	1,061
	Tungamah					1,200	1,228
	Wangaratta			·		725	188
	Warragul .		•••		600		
	Whittlesea				1	• • •	1,335
	Yea			•••		••	125
	Total			• •	600	38,867	20,244

# LOANS TO MUNICIPALITIES, 1919—continued.

# MELBOURNE AND METROPOLITAN MUNICIPAL LOANS REDEMPTION FUND.

Under the provisions of the Melbourne and Metropolitan Tramways Act 1918, No. 2995, a redemption fund was established at the State Treasury, into which the surplus revenue accumulations of the Tramway Board, the municipalities' sinking funds held by the State Treasurer, and annual contributions (in most cases for twenty years) from the metropolitan municipalities concerned were made payable. The greater portion of the loan indebtedness of these municipalities was made a charge against this fund. The liability of the fund includes payments by the municipalities' Loans Extension Act 1915, No. 2591, and the Municipalities' Loans Extension Act 1898, No. 1552, except interest to date of discharge. The repayment of the principal of certain other municipal loans (except those of the City of Melbourne) raised from the public, but excluding loans expended on tramways, gas works, electric light works, and markets, is also to be made from the fund. The liabilities and assets of the fund are shown in the following statement :---

MELBOURNE AND METROPOLITAN MUNICIPAL LOANS REDEMPTION FUND.

Statement prepared in accordance with section 87 of the Melbourne and Metropolitan Tramways Act No. 2995, showing---

(a) Liability taken over by the Fund-

- (1) To the Treasurer on account of loans under Acts Nos. 2591 and 1552.
- (2) To the public on account of loans maturing for which provision had
  - been made under Act No. 1552 and for other loans.

(b) Assets : Moneys and funds made available for the liquidation of liability-

(1) Tramway Funds-Surplus revenue accumulations.

(2) Municipalities' sinking funds and interest accumulations.

(3) Municipalities' contributions.

#### LIABILITY TAKEN OVER BY THE FUND.

		(1) To the	Treasurer.	(2)	To the Pul	blic.	
Municipality.		Act No. 2591.	Act No. 1552.	Act No. 1552.	Loans, Fixed Dates.	Instal - ment Loans.	Total.
, .		£	£	£	£	£	£
Melbourne	•••	92,302	8,636	80,000		1	180,938
Fitzroy			27,219	48,000		7,600	82,819
Collingwood	• •		31,137		3,000	35,014	69,151
Prahran			14,629	60,000		104,660	179,289
Richmond	••	12,406	34,341		12,000	17,158	75,905
South Melbourne		6,000		128,700		34,671	169,371
St. Kilda		28,336	58,041	25,000	2,500	7,943	121,820
Brunswick		13,678	28,089	52,000		9,513	103,280
Kew			9,984		14,500	34,177	58,661
Hawthorn		2,198	16,859	8,000	22,800	59,505	109,362
Port Melbourne			9,313	5,000		12,454	26,767
Northcote		6,932	1,169	20,000	5,530	31,478	65,109
Malvern			69	25,000		100,351	125,420
Camberwell	•••	23,274			42,000	18,900	84,174
Caulfield		24,622			17,000	50,183	91,805
Coburg	••••	4,845	6,183	26,817		11,440	49,285
Essendon		2,272	21,465	45,035		29,000	97,772
Brighton	•••	21,835		42,000	24,000		87,835
Footscray	·	2,422		57,200	5,000		64,622
Williamstown		15,015			20,000	18,500	53,515
Oakleigh	•••	1,886		7,000	3,900	7,229	20,015
Braybrook	·	727				200	927
Heidelberg		5,573			31,100	7,676	44,349
Mulgrave		1,938	10,243		2,500		14,681
Nunawading		8,947		23,300	19,875	3,736	55,858
Preston		9,000			10,000	7,341	26,341
Sandringham		8,371	630	3,933	525	16,554	30,013
Moorabbin	•••	2,462	2,731	17,067	12,475	1,084	35,819
Total	••• ,	295,041	280,738	674,052	248,705	626,367	2,124,903

ASSETS: MONEYS AND FUNDS MADE AVAILABLE.

		(2) Sinki	ng Funds.	(3) Munici-		
Municipality.	(1) Tramway Funds.	On Account of Loans at Fixed Dates.	On Account of Loans under Act No. 1552.	palities' Contribu- tions (Total) (a)	Total.	
t	£	£	£	£	£	
Melbourne	123,602		12,169	45,167	180,938	
Fitzroy	40 800	416		41,815	82,819	
Collingwood .	1 11 100	1,155		26,588	69,151	
n 1.		1,100	l l	123,019	179,289	
D:	45,000	4,285		24,531	75,905	
C. 1. W. II.	FRIDA	4,285	12,741	100,589	169,371	
CH 1773 3	1 05 000	494	-	84.040	121,820	
D 11		494	•••	58,130	103,280	
	- /	5.645		36,964	58,661	
TT	,			61,370	109,362	
D. / M.U	,	15,544	••	11,756		
N					65.109	
Northcote		2,117		33,085		
Malvern			•••	93,665	125,420	
Camberwell .	,	19,733		42,571	84,174	
Caulfield		14,969		45,370	91,805	
Coburg	2.,0=		6,817	25,390	49,285	
Essendon	- /	104	7,535	52,605	97,772	
Brighton		7,238	5,235	53,422	87,835	
Footscray		963	489	28,194	64,622	
Williamstown .		18,077	••	13,960	53,515	
Oakleigh		1,214	1,119	11,908	20,015	
Braybrook	3,695	••		••	3,695	
Heidelberg	13,903	11,272		19,174	44,349	
Mulgrave	3,406	552		10,723	14,681	
Nunawading .	11,628	8,663	6,156	29,411	55,858	
Preston	9,088	8,685	•••	8,568	26,341	
Sandringham .	9,434	382		20,197	30,013	
Moorabbin	11,166	6,547		18,106	35,819	
and a second						
Total .	827,000	128,092	52,261	1,120,318	2,127,671	
Deduct amount in ex	_					
cess of liability taken					Î.	
over on account o					ł	
Shire of Braybrook	-				2,768	
	1				0.104.000	
Total .					2,124,903	

(a) It will be necessary when the final payments are being made to adjust any difference between the interest earned and the interest charged to the fund.

NOTE.—The municipalities' contributions are in most cases to extend over twenty years, and are to be paid by equal annual instalments during that period. In four instances the time for repayment is somewhat longer.

### **RECEIPTS AND EXPENDITURE OF THE CITY OF MELBOURNE.**

Particulars of the receipts and expenditure for 1919 of the City of Melbourne are given in the statement hereunder.

Gity of Melbourne, revenue and expenditure under various heads. Of the total revenue of the City of Melbourne in 1919, about 27 per cent. was derived from rates, 39 per cent. from the sale of electric light, 7 per cent. from the rental of city property-chiefly markets and shops-9 per cent.

from market and weighbridge fees, 10 per cent. from licences, and 8 per cent. from other sources. For public works maintenance, such as roads and bridges, markets, abattoirs, &c., about 29 per cent. of the total expenditure was incurred; for interest on loans and on bank overdraft and expenses of paying interest, 16 per cent.; for payments to sinking funds and repayment of loans, 4 per cent.; for electric supply, 28 per cent.; for lighting, 4 per cent.; for street cleansing, 7 per cent.; for salaries, allowances, and commissions, 6 per cent.; and for miscellaneous expenditure, 6 per cent.

# CITY OF MELBOURNE : REVENUE AND EXPENDITURE, 1919.

	Heads of Revenue.							
							£	
Rates						)	105 000	
General	••	••	••	••	••		137,327	
Lighting	••	••	••	••	••	•••	19,825	
Licences—						Í		
Publicans'-Equ					••		10,916	
Abattoirs-Slau					ı Fees		40,584	
Drays, Hackney	Carriages,	, Trams,	and Mo	tors			1,505	
Other Licences	••	••	••	••			429	
Fees under Dog Ac	et	••	• •	••	• • •		602	
Baths	• •	••	• •	• •			4,361	
Market and Weigh	bridge Fee	s	• •				54,337	
LightingSale of ]	Electric Cu	irrent ai	id Rent	of Meters	, &c.		221,990	
Closet and Street	Cleansing	Charge	s		•••		5,809	
Fines and Costs	•••	0				· )	1,893	
Rents-						1.1		
Markets and We	ighbridges						33,000	
Town Hall Prem							5,165	
Other							2,428	
Interest on Fixed		ve.					6,975	
Miscellaneous-			••				0,010	
Desiccators-Sal	e of Manı	re		4			14,927	
Fees under Build			••		••		1,283	
Sundries		••	••	••	••		12,525	
~ununvo	••	••	••	••	••		12,020	
Total	• ••	••	•••	••	• •		575,881	

### CITY OF MELBOURNE : REVENUE AND EXPENDITURE, 1919-continued.

Hea	ads of Exp	enditure.				Amount.
Salaries (including clerical a						£
statistics, making valu	ation, ar	nd comn	nissions p	aid in li	eu of	
salaries, &c.)	• •		• •			33,98
Allowance to Lord Mayor	••	. •	••			1,50
Closet Cleansing	• •		••	••		15'
Street Cleansing, &c	••		• •	•••	]	38,97
			••	••		22,62
Fire Brigades Board-Contr		••	••			8,34
Public Works-Maintenance						
Roads and Bridges		••	• •	••		89,07
Markets and Weighbridge	8	••				15,06
Public Buildings (includin			is, &c.)	••		42,13
Parks and Planting Trees			••	• •		20,40
Repatriation—Employment		ned Sold	liers			74
Interest on Loans from the		••		••		95,76
Repayment of Government						2,25
,, ,, Public Loans				••		10,000
Sinking Funds-Loans from		lic	• ••			14,134
Electric Supply-Maintenan			• • •	· · · ·	·	160,37
Expenses of paying Interest		s	• •			34
Interest on Bank Overdrafts			••			42
Contributions to Charitable			••		·	1,66
,, ,, Infectious			••		)	5,64
,, ,, Heathertor	ı Sanator	ium				95
Law Costs	••		••			68
Printing, Advertising, and S	tationery	· · · ·		••	•••	3,27
Miscellaneous						
Rat Destruction						55
Gas Conference				••		15
Fees—Dog Act			••	••		44
Insurance and Guarantee	Premium	ns	••			2,62
Elections			• •	••		24
Influenza Epidemic		• •	• •	·		4,13
Peace Celebrations	••		••		•••	1,05
Ceremonials				••		98
Ambulance Service		·				20
Sundries	•••			• •		2,51
					-	
Total						581,43

#### MUNICIPAL OFFICERS' FIDELITY GUARANTEE FUND.

Municipal Officers' Guarantee Fund. An Act was passed in 1907 (No. 2080) incorporating the Municipal Assocation of Victoria, and authorizing it to institute a "Municipal Officers' Fidelity Guarantee Fund,"

to which any municipality, any authority constituted under any Water Act or any Weights and Measures Union may contribute such sum as may be fixed by the association for a guarantee against loss by the dishonesty of its officers. The Act provided, however, that the fund could not be established until three-fifths of the municipalities in Victoria had agreed in writing to contribute and that the amount to be contributed for a guarantee must not be less than that payable in 1907 for a like guarantee to any incorporated company or society in Victoria. At any time after the fund has reached £3,500 the rates of contribution may be altered, so that it will be

maintained at that sum, and, in the event of the amount at credit being at any time insufficient to pay all the liabilities and expenses, the difference must be made up by payments from all the contributors, each paying pro ratâ to its contribution. If the association determines to discontinue business, the funds are to be divided proportionately to the sums contributed during the preceding five years. Payment of contributions is to be made within one month after a written notification has been sent by the secretary. Full and accurate accounts are to be kept of all moneys received and expended, and of the details of the transactions. A balance-sheet, made up to the 30th September of each year, must be prepared, exhibiting a true statement of receipts and expenditure and the balance to the credit of the fund.

More than the required number of municipalities agreed to co-operate, and the fund was inaugurated on 1st January, 1908. Its operation was, at first, restricted by the association to guarantees in respect of municipal officers, but the rules have been altered, and since 1st October, 1914, they have permitted of guarantees being obtained by any waterworks authority or Weights and Measures Union ; such authority or union is required, however, to make a preliminary payment into capital account. The premium revenue for the year ended 30th September, 1914, in respect of guarantees amounting to £198,320, was £1,115, but, under the reduced scale of premiums which came into force on 1st October of that year, guarantees for the year ended 30th September, 1919, amounting to £228,730, were obtained from the Association for a contribution of £767. The amount to the credit of the fund on 30th September, 1919, was £8,693. The claims paid from the inception of the fund to 30th September, 1919, amounted to £1,969.

#### **MELBOURNE HARBOR TRUST.**

Melbourne Harbor Trust —receipts and expenditure.

The Melbourne Harbor Trust is a corporate body, which was established in 1876 to regulate, manage, and improve the Port of Melbourne and portions of the Yarra and Saltwater Rivers adjacent thereto, for which purpose

certain lands and properties are vested in Commissioners. On 31st December, 1912, an Act was passed by the State Parliament which altered the constitution of the Trust. For seventeen Commissioners, of whom six were appointed by the municipalities concerned, three by the owners of ships registered at Melbourne, three by merchants and traders paying wharfage rates, and five by the Governor in Council, there were substituted five Commissioners to be appointed by the Governor in Council. Other than the chairman, one member is to be an owner of ships registered at some British port and trading at Melbourne, one a person engaged in the business of an exporter by sea of Victorian produce, one an importer by sea of goods into Victoria, and one identified with primary production in Victoria. The chairman's salary is not to exceed £1,500; and the attendance fees of the other Commissioners are fixed at £2 2s. per meeting, not more than £250 to be paid to any of these commissioners in any one year. The borrowing power of the Trust was increased from

£2,000,000 to £3,000,000. The payment to the Consolidated Revenue was not to be greater than £60,000 per annum for five years from 1st January, 1913. The following are particulars of the ordinary receipts and ordinary and capital expenditure for each of the last five years :—

# MELBOURNE HARBOR TRUST.—RECEIPTS AND EXPENDITURE: 1915 TO 1919.

Heads of Revenue and Expenditure.	1915.	1916.	1917.	1918.	1919.		
	Revenue.						
Wharfage and Tonnage Rates Rents Interest	£ 272,279 23,834 1,293	£ 273,731 30,360 170	£ 267,739 27,989 31	£ 259,175 30,678 123	£ 255,234 33,740 193		
Other Revenue	13,092 310,498	17,273	23,158 318,917	33,233 323,209	43,453 332,620		
Less Amount paid to Consolidated Revenue	60,000	321,534 60,000	60,000	62,305	<b>62,4</b> 60		
Total	250,498	261,534	258,917	260,904	270,160		
	REVENUE EXPENDITURE.						
General Management and Ex- penses Flotation and Redemption of	36,067	40,994	38,363	30,568	31,622		
Loans Expenses	5,936 20,298 1,754	20,496 1,957	1,005 44,231 1,994	5,404 15,279 1,982	12,455 47,382 2,418		
,, Wharfs ,, Approaches Interest on Loans*	25,469 7,999 72,934	20,928 9,994 78,820	15,780 8,107 85,206	11,778 6,667 87,190	17,121 10,845 94,698		
Depreciation, Renewals Account, and Sinking Fund	30,415	51,364	51,747	52,000	52,500		
Total	200,872	224,553	246,433	210,868	269,041		
Surplus on Revenue Account	49,626	36,981	12,484	50,036	1,119		
		CAPITAL	, Expend	ITURE.			
Land and Property Deepening Waterways Wharfs Construction Approaches Construction Other Harbor Improvements Floating Plant General Plant Stock Account	$\begin{array}{r} 2,060\\ 93,615\\ 120,627\\ 10,921\\ 4,275\\ 3,112\\ 4,107\\ 25,451\end{array}$	$\left \begin{array}{c}1,316\\82,429\\105,803\\8,960\\35,946\\25,190\\2,853\\21,784\end{array}\right.$	$588 \\ 50,871 \\ 62,246 \\ 6,201 \\ 26,923 \\ 3,814 \\ 1,728 \\ 4,686$	1,153 108,037 37,321 11,417 7,352 811 130	964 68,746 77,305 3,774 3,068 1,435 509 		
Total	264,168	284,281	157,057	166,221	155,801		

\* Exclusive of interest on cost of plant debited to works carried out by day labour.

# GEELONG HARBOR TRUST.

Geelong Harbor Trust -receipts and expenditure. An Act to provide for the construction of works in connexion with the harbor at Geelong was passed on 12th December, 1905. This measure made provision for the constitution of the Geelong Harbor Trust and the appoint ment of three commissioners, the chairman to receive

£400 per annum, and each of the other commissioners, the chainman to receive £400 per annum, and each of the other commissioners £200 per annum. The management of the port and shipping is vested in the commis sioners. Power is given to the Trust to borrow £591,000 and to issue debentures, which may be made payable in London or Melbourne The following is a summary of the receipts and expenditure for the last five years, the expenditure from ordinary revenue being distinguished from loan expenditure :---

GEELONG HARBOR TRUST—REVENUE AND EXPENDITURE.

	1			·····	·····
	1915.	1916.	1917.	1918.	1919.
REVENUE.	£	£	£	£	£
Wharfage and Tonnage Rates	10,200	9,171	8,772	9,988	13,004
Rents, Fees, and Licences	3,776	4,113	3,829	5,488	5,125
Sparrovale Farm	6,710	4,930	5,933	7,042	7,403
Corio Freezing Works and Abat-			0,000	.,	.,
toirs	9,543	9.777	10,683	15,180	20,999
Other Revenue	606	830	3,157	4,919	1,682
Total	20.025	00.001			
Total	30,835	28,821	32,374	42,617	48,213
REVENUE EXPENDITURE.					1.1
General Management and Ex-	]				
penses	5,950	7,540	5,933	6,251	6,381
Maintenance-Wharfs and Ap-	.,	.,	.,	-,	- ,
proaches	196	755	555	1,336	670
,, Harbor	587	455	435	613	701
" Floating Plant	82	182	383	1,202	1,204
,, Other	992	988	852	1,393	1,397
Interest on Loans and Sinking				-,	
Fund	21,870	24,288	25,926	27,595	27,755
Sparrovale Farm	5,786	6.447	4,317	4,869	4,894
Corio Freezing Works and Abat-			ŕ		· ·
toirs	1,576	710	1,024	1,209	2,845
Corio Quay Power-house	1,805	3,055	1,947	3,557	9,826
Miscellaneous	211	608	883	753	533
			<u>.</u>		
Total	39,055	45,028	42,255	48,778	56,206
CAPITAL EXPENDITURE.				1 19 4	
Land and Property	2,224	22,992	33,638	21,965	22,911
Deepening Waterworks	15,882	8,804	52		
Wharfs and Approaches Con-	, -	-,			
struction	6.617	365	25	314	270
Other Harbor Improvements	28,983	9,873	900	71	
Floating and General Plant	1,358		209		48
Miscellaneous	2,030	832	ĩ		
Total	57,094	42,866	34,825	22,350	23,229

7791.—**16** 

# MELBOURNE AND METROPOLITAN BOARD OF WORKS.

The Board was established by Act of Parliament No. **Greation** and 1197, which came into force on 20th December, constitution 1890. of Board. and it entered upon its duties on 18th March, 1891.

It consists of 40 members, of whom one is the Chairman, who is elected every four years by the other members, the retiring Chairman being eligible for re-election. The other members must be also members of the respective councils which they represent, and are elected as follows :--- Nine by the Melbourne City Council, four by the South Melbourne Council, three by the Prahran Council, two each by the Collingwood, Fitzroy, Richmond, and St. Kilda Councils, and one each by the other fifteen suburban municipal councils returning a representative, viz., Footscray, Hawthorn, Brunswick, Essendon, Malvern, Brighton, Northcote, Port Melbourne, Williamstown, Caulfield, Camberwell, Kew, Coburg, Heidelberg, and Preston.

Thirteen of the members retire annually in the month of February, but are eligible for re-election if they remain members of their respective councils.

The functions of the Board are to control and manage Functions of the Metropolitan water supply system, including waterthe Board.

sheds, reservoirs, weirs, aqueducts, pipes, &c.; to provide the metropolis with an efficient system of sewerage and drainage; and to prevent the pollution of the River Yarra and other public streams and water-courses within the metropolis.

The sewerage area over which the Board exercises Area under control consists of eighteen cities, two towns, one shire, control. and and parts of five other municipalities, or twenty-six population.

municipalities in all, embracing a total area of 90,821 The Board exercises control (under Orders in Council) acres. for water supply purposes over an additional 3,929 acres in four municipalities. The Board further supplies water to the Metropolitan Farm at Werribee and the outfall sewer area. Various other shires The total estimated also arrange with it for bulk supplies of water. population supplied with water on 31st December, 1919, was 771,871.

Board's borrowing powers and liability on loans.

Board's

The Board is authorized to borrow £10,750,000, exclusive loans amounting to £2,389,934 contracted by the of Government and taken over by the Board.

The liability for Government loans on 30th June, 1919, was £1,559,786, and for loans raised by the Board, £10,979,760, a portion of the latter amount having been applied in repayment of Government loans falling due. The Board was at that date empowered to borrow £600,388 before reaching the limit of its borrowing powers.

#### WATER SUPPLY FINANCE.

Water supply assessments and rates.

By Act of Parliament the rate to be paid in respect of any lands and tenements for the supply of water for domestic purposes, otherwise than by measure, is limited to an amount not exceeding 8d. in the £1 on the annual

valuation of the lands and tenements served. The water rate levied in the year 1918-19 was 6d. in the  $\pounds 1$  on the annual value of property served. Assessments of  $\pounds 20$  and under are charged a minimum rate of 10s. per annum. There is a charge of 1s. per 1,000 gallons for water supplied by meter, with the assessed rate as a minimum. For shipping at Melbourne wharfs the charge is 3s. per 1,000 gallons, and at special berths at Melbourne wharfs, with fixed meters, it is 1s. 6d. per 1,000 gallons.

water meters. Water meters may be hired from the Board at the following annual rentals, payable quarterly in advance :-For a 1/2-in. meter, 5s.; 3/4-in., 6s.; 1-in., 8s.; 11/4-in., 10s. 6d.; and 11/2-in., 14s.

Garden rate. Areas not exceeding 100 square yards (including paths) are supplied with water without meters on payment of a special rate of 10s. per annum each.

Assessed value of property assessed for water supply purposes and liable to water rates was £7,507,306 in 1918-19.

Water rate In 1918–19 the water rate receipts were as follows :--receipts. £ 8. \_ *d*. 168.0373 11 Water rate (including arrears) Meters 154.395 18 - 2 ,, ,, Special rates 3,4586 10 ,,

Total	••	••	 325,891	8 11

Revenue and expenditure of water supply system. The total revenue was £372,180, as against £331,955 in the previous year. The cost in 1918-19 of maintenance and management was £59,394, and of interest £153,573, the total charges being £212,967, compared with

a cost in 1917–18 of £60,714 for maintenance and management, and of  $\pounds$ 139,458 for interest, or a total charge of  $\pounds$ 200,172.

Original water su	pply	works,	tank pu	umping
station, &c.				£84,885
Yan Yean system				634,750
Maroondah system		••		799,125
O'Shanassy system	•••		•••	459,901
Service reservoirs		•••		. 250,874
Large mains			• •	1,194,466
Reticulation	••		••	1,497,065
Total	••	• • •	•••	£4,921,066

### SEWERAGE FINANCE.

In 1891 the annual value of rateable property within the area then to be sewered was £6.866.313, of which about assessments. £1,000,000 related to vacant lands. The collapse of the land boom was followed by a heavy shrinkage in the value

of rateable property. A recovery in values has since taken place, and the total of the sewerage assessments for 1919-20 is £8.353.599, inclusive of assessments on vacant lands.

- By Act of Parliament the Board is empowered to levy a general sewerage rate not exceeding 1s. 2d. in the £1 in sewered areas. The sewerage rate for 1918-19 was 11d. in the £1 in the sewered area. The total annual value of property assessed for sewerage purposes and liable to the 11d. rate was £7.077.424 in 1918-19.

The receipts from the general sewerage rate in 1918–19 amounted to £327,831.

The sewerage revenue for 1918-19 was £379,900, as against £327,399 in the previous year. The outlay in 1918-19 for management, working expenses and repairs was £87,954, and for interest £372,235, the total charges being £460,189, compared with an outlay in 1917-18 of £85,327 for management, working expenses, and repairs, and of £345,521 for interest, or a total charge of £430,848.

Cost of the The cost of sewerage works and house connexions up **Melbourne** and Metropolitan to 30th June, 1919, was £7.718.958, divided as follows :-sewerage system.

Farm purchase and preparation		£570,040
Outfall sewer and rising mains.		423,403
Pumping station buildings and engines		245,488
Main and branch sewers		2,165,156
Street reticulation		2,353,907
Reticulation of rights-of-way		1,072,043
House connexions branches		436,758
Cost of house connexions chargeable to ca	apital	452,163
Cost of sewerage system		£7,718,958
Householders' debts for house connexions	š	
River improvements		0.000
Total		£7,855,433

#### DESCRIPTION OF WATER WORKS.

The Melbourne and Metropolitan waterworks.

The metropolis is supplied with water from three independent sources-one known as the Yan Yean system, fed by the watershed of the Plenty River and Jack's Creek

from the southern slopes of the Great Dividing Ranges, supplemented by the Wallaby and Silver Creeks, tributaries of the Goulburn, whose waters have been diverted over the range by means of weirs, aqueducts, and tunnels; a second, known as the Maroondah system, whose watershed is in the Healesville district, and which

Sewerage

rates, and receipts.

takes in the water of the Maroondah or Watts River, the Graceburn, Donnelly's and Coranderrk Creeks, and other smaller streams; and a third, known as the O'Shanassy and Upper Yarra system, whose watersheds are in the Upper Yarra above Warburton. As regards the last-mentioned system, at present only the O'Shanassy River, a main tributary of the Upper Yarra, has been tapped.

Total catchment area.

The total catchment area from which water is collected at present from the three systems is 102,000 acres, the whole of which is vested in the Board, and free from settlement or grazing.

Total daily supply.

The total daily quantity of water which can be sent into Melbourne at present from the three systems is 90,000,000 gallons.

### YAN YEAN SYSTEM.

Yan Yean system.

The Yan Yean watershed embraces Silver and Wallaby Creeks, 12,000 acres; Plenty River and Jack's Creek, 12,000 acres; and the catchment areas of Yan Yean

Reservoir, 5,000 acres, totalling 29,000 acres. The water is collected into the Toorourrong Reservoir, and taken thence to the Yan Yean Reservoir, where it is stored. This reservoir is an artificial lake situated 22 miles from the city in a northerly direction, and 602 feet above sea level. It is formed by the construction of an earthen bank 49 chains long, 30 feet high, and 20 feet wide on top, with a slope next the water of three to one and an outside slope of two to one. reservoir when full covers an area of 1,360 acres, or  $2\frac{1}{8}$  square miles, with a maximum depth of 26 feet, and an average depth of 18 feet. The maximum depth of water in the reservoir in 1919 was 25 ft.  $7\frac{3}{4}$  in. on 22nd and 23rd October, and the minimum depth 22 ft. 10<sup>3</sup>/<sub>4</sub> in. on 30th March. Its total capacity is 6,400,000,000 gallons, of which 5,400,000,000 gallons are available for consumption. In the year ended 31st December, 1919, the total intake of the Yan Yean Reservoir was 4,343,212,000 gallons, and the total output was 3,802,166,000 gallons exclusive of loss by evaporation.

From this reservoir the water is forwarded to Morang Pipe Head Reservoir through an open aqueduct capable of delivering 33,000,000 gallons a day when full, and thence to Preston Reservoir, or to Melbourne direct, by a series of pipes.

There is also a direct main, called the high-level system. High-level from Yan Yean to Surrey Hills Reservoir, for supplying system. the high levels of the eastern suburbs of Melbourne in conjunction with the O'Shanassy and Upper Yarra System. It is capable of delivering 9,000,000 gallons a day.

### MAROONDAH SYSTEM.

The Maroondah water is taken by means of small weirs from the watershed of 40,000 acres situated above Healesville, and it is thence conveyed to the Preston Service Reservoirs along an aqueduct (about 411 miles of open channels, tunnels, and syphons), which is capable of delivering 28,000,000 gallons daily.

## O'SHANASSY AND UPPER YARRA SYSTEM.

The watershed of the O'Shanassy River comprises O'Shanassv 33,000 acres, situated near Warburton. The water is Upper Yarra diverted by means of a weir and conveyed to Surrey Hills watershed.

by way of Mitcham in an aqueduct, and in tunnels, syphons, and a pipe line of an aggregate length of  $48\frac{3}{4}$  miles. The aqueduct is capable of delivering 20,000,000 gallons daily, but it has been completed in the tunnels and some other parts to a capacity of 60,000,000 gallons to provide for further diversions from the Upper Yarra and its tributaries.

Storage and There are two storage and thirteen service reservoirs service (also three other service reservoirs proposed) as under :--reservoirs.

]	Description.		Capacity.	Reduced Level at By-wash.
Yan Yean Toorourrong	••	· · · ·	Gallons. 6,400,000,000* 60,000,000	Feet above L.W.M. 602 - 747
Tota	l (storage)		6,460,000,000	

## STORAGE RESERVOIRS.

\* Of this quantity 5,400,000,000 gallons are available for consumption.

## SERVICE RESERVOIRS.

Description	Description.		Capacity.	Reduced Level at By-wash		
			Gallons.	Feet above L.W.M.		
Preston No. 1			13,500,000	326.50		
" No. 2			24,500,000	326.50		
,, No. 3			26,300,000	326.50		
Essendon No. 1		. 1	1,000,000	209.25		
" No. 2			4,000,000	209.25		
Caulfield			10,000,000	166.00		
Kew			3,000,000	281.50		
Surrey Hills No. 1	•••		9,000,000	429.50		
,, No. 2			15,000,000	429.50		
Morang (Pipe Head)			3,000,000	485.00		
Heidelberg			1,000,000	325.00		
Notting Hill			10,000,000	332.50		
Olinda	•••		11,000,000	671.00		
Total (service	)		131,300,000	• •		
North Essendon (prop		ovision		290.00(approx.)		
for 10,000,000 gallon Mitcham (proposed two reservoirs with of about 40 million	provisio 1 a ca	pacity		515· <b>00</b> ,,		

and

YAN YEAN SYSTEM-					Miles	Chs.	Miles	Chs.
Aqueducts, &c., between	watershe	eds and	Yan	Yean	20	<b>a</b> 0		
Reservoir Aqueduct—Yan Yean Reser	 Toin to T	 Vionana	••.	••	$23 \\ 6$	$\frac{62}{33\frac{1}{2}}$		
	voir 10 1	norang	••	••	0	002	<b>BO</b> <sup>1</sup>	1 ~ 1
Total	••	••	••	••		••	30	$15\frac{1}{2}$
Maroondah System-								
Main Maroondah Aqueduct	••			• •	41	28	÷	
Tributary Aqueducts	••	••	••,	••	6	8		
Scours at Preston Reservoirs	8	••	••	••	2	$52\frac{1}{4}$		
Total	••	••	••	• ••		• •	50	$8^{1}_{4}$
O'SHANASSY SYSTEM-			•					
O'Shanassy Aqueduct					<b>22</b>	681		
O'Shanassy Pipe line					25	$69\frac{2}{3}$		
Scour Channel at Warburton	ı		• •	• •	0	$36\frac{3}{4}$		
Scour at Olinda Reservoir					0	$31^{\circ}$		
Scour at Surrey Hills Reserv	70ir	••	••	• •	0	49		
Total	••					••	50	15
Grand Total—Aqu	educts, a	&c.					130	38
*Large Mains, 54-in. to 12-in.			ve)				230	661
<b>Beticulation under 12-in.</b> diam	notor	-	-				1,346	78

Consumption of water in Melbourne and tion was 55.92 gallons per head. Some districts are supplied outside the Board's sewerage area. The total

consumption and average consumption per day are shown here under for each month of the year 1919 :—

TOTAL AND DAILY AVERAGE CONSUMPTION OF WATER IN MELBOURNE AND SUBURBS DURING EACH MONTH OF THE YEAR, 1919.

Month.		Total Consumption of Water.	Daily Average Consumption of Water.		
· · · · · · · · · · · · · · · · · · ·		[	Gallons,	Gallons.	
January			1,716,882,000	55,383,290	
February	•••		1,510,717,000	53,954,178	
March	•••		1,251,109,000	40,358,355	
April			1,113,326,000	37,110,866	
May			1,117,506,000	36,048,580	
June			995 678,000	33,189,267	
July			1,030,728,000	33,249,290	
August			1,112,682,000	35,892,967	
September			1,144,553,000	38,151,767	
October	· · ·		1,376,202,000	44 393,612	
November			1,531,161,000	51,038,700	
December			1,595,613,000	51,471,387	
Total fo			15,496,157,000		
Daily av year	erage to	r the		42,455,225	

Bxclusive of O'Shanassy Pipe line and Marcondah Aqueduct syphons.

The following table shows for each year since the establishment of the Board in 1891 the daily average consumption of water, and the daily average per head :---

# DAILY AVERAGE QUANTITY OF WATER CONSUMED IN MELBOURNE AND SUBURBS, 1891 TO 1919.

Year.	Population supplied with Water to 30th June.	Houses sup- plied with Water to 30th June.	Tenements Con- nected with Sewerage System	Daily Average of Annual Consumption of Water to	No. of Gallon of Water per Head Daily,
			to 30th June.	31st December.	
				Gallons.	
891	482,600	99,364	•••	<b>2</b> 5,747,761	53.35
892	486,620	106,772	•••	23,476,780	48·24
893	469,390	107,125	•••	24.290,041	51 · 75
894	449,560	107,764	•••	27,071,106	60.22
895	444,340	107,260	•••	26,689,683	60 07
396	452,210	106,486	•••	23,837,695	$52 \cdot 71$
397	458,300	105,710	•••	24,665,607	$53 \cdot 82$
898	466,895	104,861	3,899	28,253,294	60.51
399	480,390	103,981	13,593	27,068,465	56.37
900	489,600	104,050	28,300	28,230,690	57 · 66
901	494,905	104,548	38,696	29,427,589	<b>5</b> 9 · 46
902	501,580	105,051	47,172	29,080,027	57.98
903 .	502.840	106,176	55,929	28,858,633	57.39
904	505,7n0	107,701	64,487	29,523,153	58.37
905	511,520	109,393	71.689	32,400,286	63 34
906	519,925	111,494	79,597	33,479,900	<b>64</b> · 39
907	530,655	114,049	87,853	35,212,222	<b>6</b> 6 · 36
908	543,115	116.781	94,067	31,559,830	58·11
909	557,350	119,650	99,955	33,047,340	59.29
910	573,255	123,227	105,993	33,272,490	58·04
116	588,000	128,036	112,293	36,110.115	61 41
912	604,275	133,122	118,350	38,569,566	63.83
913	<b>6</b> 28, <b>4</b> 30	140,351	125,103	41,642,926	66·27
914	651,000	147,442	131,168	40,778,844	62.64
915	674,000	150,825	138,108	36,567,614	54 25
916	713,957	155,208	143,737	36,910,680	51.69
917	727,196	158,086	148,395	38,604,178	53.08
918	744,018	161,743	151.622	40,838,819	54.89
919	759,212	165,046	155,238	42,455,225	55.92

## DESCRIPTION OF SEWERAGE SYSTEM.

Sewerage system. While the Board took over from the State Government the branch which had the management of the Melbourne Water Supply, still the shipt chiest of its creation

Water Supply, still the chief object of its creation was to carry out the long-called-for and pressing want of an efficient system of sewerage in the Metropolitan area. The plans and estimates of the cost of the Metropolitan sewerage scheme were originally prepared by the late Mr. James Mansergh, an expert civil engineer from England, and were furnished to the Board on its creation. The scheme recommended by the designer and selected by the Board's Engineer-in-Chief (the late Mr. William Thwaites) was estimated to cost £5,030,000,

but was modified by Mr. Thwaites, with the concurrence of the Board, so as to reduce the estimated cost to  $\pounds 3,451,000$ .

The original Act of Parliament contemplated only the construction of sewers in the streets, but this was altered by an Act passed in 1897, which added the duty of constructing sewers in rights-of-way and the branches from the sewers to the building line of each property, and in consequence has added considerably to the original estimate of cost.

Tenements connected with the sewerage system. The first tenement was connected in Port Melbourne in August, 1897. On 31st December, 1919, 159,911 tenements had been gazetted as within sewerage areas, and applications had been received re 166 outside gazetted areas, making a total of 160,077 tenements. Of this number

159,641 were provided with sanitary fittings which required to be connected with the sewerage system, and 157,056 had been connected, including the 166 outside gazetted areas. Of the remaining 2,585 tenements, 1,830 were in progress of connexion, while on 755 tenements connexions work had not been commenced.

The following statement shows the progress of house connexions to the 31st December, 1919:—

## PROGRESS OF HOUSE CONNEXIONS WITH THE SEWERAGE SYSTEM IN MELBOURNE AND SUBURBS.

Municipality.			No. of Tenements connected on 31st December. 1919.	
Melbourne City			26,981	
South Melbourne City		•	10,802	•
Prahran City			11,957	
Fitzroy City			7,993	
Richmond City			10,312	
St. Kilda City			7,932	
Collingwood Čity	•••		8,474	
Footscray City			6,857	
Hawthorn City			6,532	
Brunswick City			9,075	
Essendon City			7,414	
Malvern City			6,125	
Caulfield City			6,862	
Northcote City			5,828	
Camberwell City			3,577	
Brighton City			4,180	
Port Melbourne City			3,030	
Williamstown City			3,761	
Kew Town			2,959	
Coburg Town			2,036	
Sandringham Town (part of)	,		1,321	
Oakleigh Borough (part of)			Nil	
Heidelberg Shire (part of)	•••		1,638	
Preston Shire			1,157	
Moorabbin Shire (part of)			Nil	
Nunawading Shire (part of)			253	der ge
Total			157,056	-

# PROGRESS REPORT OF SEWERAGE WORK WITHIN THE BOARD'S AREA.

On 31st December, 1919, the sewerage system was practically completed in the following municipalities :---Melbourne, South Melbourne, Port Melbourne, Collingwood, Fitzroy, Hawthorn, Prahran, Richmond, St. Kilda, and the thickly populated portions of Essendon, Nunawading, and Sandringham. The system was nearly completed in the municipalities of Brighton, Footscray, and Malvern, and the thickly populated portions of Caulfield, B. unswick, Coburg, Camberwell, Kew, Northcote, Preston, and Williamstown. Considerable progress had also been made in the municipality of Heidelberg.

During the twelve months ended December, 1919, work was carried out principally in Caulfield (East), Malvern (East), and Camberwell; and, in a lesser degree, in Coburg, Essendon, Melbourne (Travancore Estate), Northcote, and Preston. The Murrumbeena branch sewer, in Caulfield, and the Darling branch sewer, in Malvern, have been constructed to meet the requirements of new reticulation areas. Reticulation contracts have been practically completed in Camberwell, Caulfield (East), Coburg, Essendon, Heidelberg, Malvern (East), Northcote, and Preston. Reticulation extensions have been carried out, principally in Caulfield, Camberwell, Malvern, Prahran, and St. Kilda; and, in a lessening degree, in Brighton, Northcote, Kew, Hawthorn, Footscray, and Coburg.

Work in progress.—The North Yarra main section 13, Heidelberg, is now under construction, and reticulation contracts are being carried out in Caulfield, Northcote, and Preston, while day labour extensions to meet the requirements of new buildings or fresh sub-divisions are being carried out in Camberwell, Caulfield, Collingwood, Footscray, Malvern, and Northcote.

The whole system was so far advanced that on the date mentioned above—31st December, 1919—the sewerage from 160,077 tenements could be collected, including those inside and outside gazetted areas, and 159,641 tenements could be connected. Of these, 157,056 tenements were connected, and work was in progress on 1,830 other premises. The total number of fittings connected with the system was as follows:—75 public conveniences and 85 public urinals, 184,328 water closets, 138,956 baths, 110,622 sinks, 108,642 sets of wash troughs, 56,721 lavatories, 16,834 stables, 10,361 urinals, 8,735

polluted areas and paved yards, 2,017 cellars, 1,183 slop hoppers, 300 latrines, and 364 dairies. There were 436 tenements in which there were no fittings to be connected. The house connexions pipes join the 9-inch reticulation pipes, which are gradually collected into 12-inch, 15-inch, and 18-inch pipes, and then again into brick and concrete branch sewers, which join the sub-mains and mains. In all,  $1,501\frac{3}{5}$ miles of reticulation and  $162\frac{7}{10}$  miles of mains and branch sewers have been completed, making a total length of  $1,664\frac{3}{10}$  miles.

## SEWERS AND PUMPING STATION.

#### Main Sewers and Subsidiary Main.

The sewage of the metropolis is delivered into two main sewers and a subsidiary main leading to the pumping station at Spotswood.

The two main sewers are—

1. The North Yarra main sewer (North Yarra system), which commences with Heidelberg, and thence takes up East Kew, Preston, Coburg, Northcote, Brunswick, the Clifton Hill part of Collingwood, also Fitzroy, and the North Carlton, North Melbourne, and Flemington and Kensington parts of Melbourne, together with Essendon and Footscray.

2. The Hobson's Bay main sewer (South Yarra system), which starts at Sandringham (the portion excised from Moorabbin), picking up Brighton, a small part of Oakleigh, Caulfield, Malvern, St. Kilda, Camberwell, and a small part of Nunawading, besides the remaining part of Kew, also Hawthorn, Prahran, South Melbourne, Port Melbourne, Richmond, and the remaining part of Collingwood, with East Melbourne, and other remaining parts of Melbourne.

The subsidiary main, which takes in Williamstown, joins the Hobson's Bay main before it enters the pumping station.

**Pumping** station. When collected at Spotswood the two systems are dealt with in separate buildings, and are arranged to be worked either separately or unitedly. The sewage enters the pumping station at a level of 50 feet below low-water mark through straining wells, one of which is established on each system. The wells are of 22 feet internal diameter, and each contains two straining cages, one of which is always in position. The solid matter caught in them is transferred to a drier in the building over the wells, where it is subject to steam pressure and consequently to a high temperature, which renders the material innocuous. The material from the drier is of no manurial value and is destroyed in a furnace. The sewage is raised by the pumps 125 feet through two 6-feet and one 4-feet wrought-iron rising mains —the three lengths running side by side, each 2.794 miles long (an aggregate length of 8.38 miles)—to the head of the outfall sewer, at Brooklyn, 75 feet above low-water mark, whence it gravitates to the Metropolitan Sewage Farm at Werribee in a partly-open and partly-closed channel 16 miles long, of 11 feet diameter, and having a grade of 2 feet to the mile. The full capacity of the outfall sewer is 18,000 cubic feet a minute.

### METROPOLITAN SEWAGE FARM.

The purification of the sewage of Melbourne and Suburbs sewage farm. Is effected by filtration and aeration through the natural soil of the Sewage Farm, which contains 11,688 acres 3 roods  $2\frac{1}{2}$  perches of land situated about 24 miles south-west of Melbourne and 4 miles south-west of the township of Werribee in open plain country, and had an average annual rainfall to 31st December, 1919, of 18 ·17 inches. The farm has the Werribee River for its eastern boundary, with a long frontage to Port Phillip Bay on the south (extending from the mouth of the Werribee River to the mouth of the Little River), to which the land gradually slopes from the north, the highest point being 44 feet above low-water mark. The head of the rising main at Brooklyn is, as has been mentioned, 75 feet above low-water mark and the sewage flows by gravitation from there to the farm, a distance of 16 miles, where the point of delivery is 37 ·25 feet above low-water mark.

To irrigate the portion of the farm above that level necessitates pumping, and in the meantime most of the high land is being used for dry farming, cereal crops being grown.

The land required for sewage filtration purposes is divided into 20-acre brocks (20 chains by 10 chains), which are graded into bays of about half-an-acre each, and commanded by distributing drains to facilitate rapid flooding. The sewage is distributed by means of main carriers and drains which run parallel north to south through the farm half-a-mile apart, and sub-carriers and drains which branch east and west every 10 chains. The filtered sewage is discharged into the bay by a series of main effluent channels running parallel, north and south, through the farm.

Of the area under irrigation in the year 1918-19, viz., 7,131 acres (including small areas under fodder crops and barley for grain), 287 acres were sown with maize for grain, 100 acres were under barley for grain, and 490 acres of lucerne were cut for hay, leaving 6,009 acres of grasses, and small areas under fodder crops of maize and Japanese millet and silver beet (totalling 245 acres). Of the 7,131 acres, 6,513 acres can be depastured with stock.

Notwithstanding the large quantity of sewage water required to be put on the pastures summer and winter alike, the effective filtration of which must be the Board's first consideration, a considerable profit is derived from the farming and grazing operations. The principal sources of revenue are from breeding of beef cattle, fattening of sheep and cattle, and grazing of horses on agistment. The profits from transactions in sheep and cattle for the year 1918-19 were—from sheep,  $\pounds1,410$ ; from cattle,  $\pounds22,665$ . The revenue from agistment (principally horses) was  $\pounds4,497$ .

The following are particulars of the sales of produce for the year ended 30th June, 1919 :---

					£
Lucerne	(Chaff and	Hay)			14,165
Maize	••	••	••		4,362
Wheat,	Oats, and H	Barley	• •	•••	1,228
Other	••	••	••		180
	Total	•• ,	·		19,935

Statistical details relating to the farm for the year 1918–19, or as at 30th June, 1919, are as follows :—

Total area of farm .		••	• •	11,689 acres
Average quantity of s farm for year 1918– = '130.84 acre-feet annum over the tot disposal, viz., 7,996	19 — in galle per day — tal area avail	5.97 feet	per	35,518 <b>,498</b>
Total capital cost of fa	arm to 30th J	June, 1919	••	£570,040
Profit on farm tradin charging up working			after 	£34,112
Net profit on farm (aft of sewage disposal ar cost), 1918–19				£2,352
Population served by	sewerage syst	æm	•••	714,095
Rainfall for year ende	d 30th June,	1919		22.22 inches
»» »» »»	31st Decem	ber, 1919	•••	19.07 "
Average rainfall for 2 1919	26 years to	31st Decen	ıber,	18·173 "

### GEELONG WATERWORKS AND SEWERAGE TRUST.

This Trust was constituted under the Geelong Municipal Water Act 1907, and gazetted on 15th January, 1908. It was reconstituted under the Geelong Waterworks and Sewerage Act, No. 2230.

The Commissioners number five. Two of these represent the City of Geelong, one each the Boroughs of Geelong West and Newtown and Chilwell, and one the Shires of Bellarine, Corio, and South Barwon.

The amount of loans which may be raised is limited to  $\pounds 525,000$  for Water Supply undertaking;  $\pounds 375,000$  for Sewerage undertaking; and  $\pounds 80,000$  for sewerage installation to properties. The expenditure on these services to 30th June, 1919, was:--Water Supply,  $\pounds 433,000$ ; sewerage,  $\pounds 326,000$ ; and sewerage installation,  $\pounds 34,000$ . The revenue for the year ended 30th June, 1919, amounted to  $\pounds 26,422$  on account of waterworks, and  $\pounds 21,091$  on account of sewerage.

The population supplied is about 35,000. The number of buildings situated within the "Drainage Area" is 8,500; the number within the "Sewered Areas," 6,000; and the number connected with the sewers, 3,600.

Water Supply.—The catchment area is about 16,000 acres. The works comprise the Korweinguboora Reservoir and the Bolwarra Weir, on Eastern Moorabool River; a supply channel thence to Upper Stoney Creek Reservoirs; a diversion channel to No. 2 Stoney Creek storage; an aqueduct from Stoney Creek Reservoirs to Anakie Pipe-head Basin; two 14-in. mains from Anakie Basin to Lovely Banks, with a connecting 9-in. main from Lower Stoney Creek Reservoir; a 14-in. main from Lovely Banks Service Basin to Montpellier Service Basins, with 9-in. and 14-in. mains therefrom to the reticulation system; a 16-in. main from Lovely Banks to Geelong; and 9-in. and 8-in. mains from Lovely Banks to North Geelong, with 178 miles of reticulation mains within the City of Geelong and its suburbs.

Severage.—The sewerage scheme provides for a main outfall sewer, 4 ft. 3 in. by 3 ft. 3 in., to the ocean at Black Rock, a distance of about 9 miles. The drainage area is 8,081 acres, and includes the City of Geelong, the boroughs of Geelong West and Newtown and Chilwell, and the suburban areas in the shires of Corio, South Barwon, and Bellarine.

Rating.—The water rate is 1s. 3d. in the pound on the net annual value of properties as certified to by the municipalities, with a minimum rate of £1 per annum for properties supplied.

The sewerage rates are—

(a) A general sewerage rate of 1s. 6d. in the pound on the net annual value of all rateable properties within the drainage area which are now sewered or may become sewered during the period for which such rate is made.

- (b) An additional rate of 6d. in the pound on the net annual value of all rateable properties within the drainage area which are now or may hereafter become sewered as mentioned under (a).
- (c) A rate of 6d. in the pound on the net annual value of all properties within the drainage area which are not sewered.

The total storage capacity of the reservoirs is 2,709,335,280 gallons, as under :---

Name.	Catchment Arca.	Water Area.	Length of By-wash.	Depth of Water.	Length of Bank.	Outlet above Sea Level.	Capacity.
Korweinguboora No. 1 Upper Stoney Creek No. 2 Upper Stoney Creek Storage No. 3 Upper Stoney Creek Lower Stoney Creek No. 1 Pipe-head Dam No. 2 Pipe-head Dam Lovely Banks Service Basin No. 1 (old) Lovely Banks Service Basin No. 2 (new) Lovely Banks Settling Basin (new) Montpellier Service Basin Montpellier Service Basin	$\begin{array}{c} {\rm sq.\ m.}\\ 13_{2}^{1}\\ 5_{2}^{1}\\ \vdots\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $		ft. 144 66  200 30  	$\begin{array}{c} \text{ft.} \\ 27\frac{1}{2} \\ 66 \\ 18 \\ 20 \\ 42 \\ 10 \\ 16\frac{1}{2} \\ 18 \\ 18 \\ 18 \\ 18 \\ 15 \\ \end{array}$	ft. 1,900 1,350 6,780 2,300 200   	$\begin{array}{c} \text{ft.}\\ 1,893\\ 1,109\\ 1,177\\ 1,170\\ 812\\ 836\\ 832\\ 253\\ 252\\ 252\\ 272\frac{1}{2}\\ 340\\ \end{array}$	gallons. 460,000,000 754,000,000 522,300,000 801,000,000 140,820,000 1,344,000 5,160,000 5,913,000 6,670,000 1,510,280 5,250,000
No. 2		••		15	•••	340	5,368,000

STORAGE CAPACITY OF RESERVOIRS.

### **BENDIGO SEWERAGE AUTHORITY.**

The Bendigo Sewerage Authority was constituted under the Sewerage Districts Act 1915 (No. 2761) on 20th November, 1916, and the Sewerage District proclaimed. This District includes the whole area of the City of Bendigo. The members of the Bendigo City Council constitute *ipso* facto the Bendigo Sewerage Authority. The first Chairman was Cr. William Beebe, J.P., then Mayor of Bendigo, and twice since re-elected Chairman. The annual meeting is held in February The borrowing powers conferred under the Act have so far been limited to £5,000 for the purpose of making permanent surveys, designs, and estimates for

the proposed scheme. These have now been made, and submitted for the approval of the Governor in Council, with a view to obtaining increased borrowing powers sufficient to carry out the work. central portion of the city is proposed to be first sewered-an area of 935 acres, called Sewerage Area No. 1. The estimated cost of sewering this area, including the cost of a main outfall sewer and treatment works, is £112,000. The main outfall sewer will be 4 miles long, on a grade of 1 in 700, and the method of disposal will be by septic tanks and bacterial filters, with secondary land filtration, if necessary; the effluent being available for growing fodder crops. The disposal site is surrounded by Crown lands and unimproved grazing lands, and is at Ironstone Hill, a mile west of Epsom-road, and 4 miles north of Bendigo Post Office. The Act provides for a sewerage rate not exceeding 1s. 6d. in the £1 on the annual value in sewered areas, and not exceeding 6d. in the £1 in unsewered areas. The whole scheme is expected to cost about £200.000.

## FIRE BRIGADES BOARDS.

Constitution of Connected with the water service of the State generally Fire Brigades is the service of water required for fire extinction.

Under the *Fire Brigades Act* 1915 there are constituted a metropolitan fire district, controlled by the Metropolitan Fire Brigades Board, and nine country fire districts, controlled by the Country Fire Brigades Board. The supervisors are the chief officers of the respective Boards, who are aided by deputies and other assistants.

The arrangements for fire extinction in the metropolis are closely allied to those for the Melbourne water supply, provision for the service having been made by t' e *Fire Brigades Act* 1915.

The Metropolitan Fire District embraces the area included in the various municipalities within a radius of ten miles from the General Post Office, as well as the district outside of that area which is referred to below. The area vested in the Melbourne and Metropolitan Board of Works is included in the Metropolitan Fire District, but the Metropolitan Fire Brigades Board has jurisdiction over portions of the shires of Werribee, Braybook, Keilor, Broadmeadows, Heidelberg, Doncaster, Nunawading, Mulgrave, and Moorabbin, within and beyond the 10-mile radius, which are not vested in the Melbourne and Metropolitan Board of Works. The Metropolitan Fire Brigade District includes the greater portion of the shire of Moorabbin, and it extends in a southerly direction as far as Mordialloc (16 miles from Melbourne), that township being included.

The Metropolitan Fire Brigades Board is composed of nine members, of whom three are appointed by the Governor in Council, three by the municipal councils, and three by the fire insurance companies.

The Metropolitan Fire Brigades Board on 30th June, 1920, had under its control the following :- Forty-one Outfit of the Metropolitan Fire Brigade. stations, 250 members of permanent staff, 48 members of special service staff, 7 members of clerical staff, 27 men engaged in the workshops, 100 partially paid firemen, 6 motor-drawn steam fire engines, 2 steam fire engines, 6 petrol motor fire engines, 2 motor salvage waggons, 6 combination hose carriages and pumps, 4 motor combination appliances, 34 motor hose waggons, 2 motor cycles, 2 motor lorries, 1 special service van, 1 Chief Officer's motor car, 4 extension ladders and fire escapes, 2 pompier ladders, 5 inspection cars, 1 instruction car, 102,934 feet of hose, 5 smoke helmets, 1 smoke jacket, and 343 fire alarm circuits having 1,058 street fire alarms, of which 1,038 were with telephones and 20 were fire alarms only. There were also 810 auxiliary boxes and 22 automatic systems in public and other buildings, 141 direct telephone lines 58 of which were acting as fire alarms to buildings, and 39 circuits to sprinkler installations, with 75 sprinkler call-transmitting instruments.

During 1919–20 the cost of maintenance of the Metropolitan Fire Brigade was £95,225, one-third being contributed by each of the contributing bodies, viz., Government of Victoria, municipalities within the Metropolitan Fire District, and the fire insurance companies carrying on business in that district. The municipalities' contribution was equal to -903d. in the £1 over an area wherein the property was valued at £8,433,943, and that of the insurance companies was equal to £4 12s. 4d. for every £100 of premiums on insured property. The premiums received in the Melbourne Fire District in 1918 amounted to £687,582, and the total of the payments made by the companies in 1919–20 for the maintenance of the fire brigade system was £31,742.

Country Fire Brigades Board. The Country Fire Brigades Board consists of nine members. Three are appointed by the Governor in Council, two are elected by the municipal councils of the districts in which there are brigades registered under the Board,

two are elected by the fire insurance companies carrying on business in such districts, and two by the registered fire brigades. The board annually elects one of its members as president. The tenure of the Board members is two years. The Board's revenue in 1919 was £15,586,

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which was obtained from the following sources :-(a) Government,  $\pounds4,909$ ; (b) municipalities,  $\pounds5,055$ ; (c) insurance companies,  $\pounds4,909$ ; and (d) other sources, £713. The expenditure for the year amounted There are 111 municipal councils and 74 insurance comto £15,581. panies included in the operation of the Act. The premiums received by the insurance companies in country districts during the year 1919 amounted to £239,111, and the total of their contributions in that year for the upkeep of the brigades was £4,909. The total value of rateable property assessed within the Board's district in 1919 was £1,855,994. All brigades under the control of the Board are volunteer brigades, but in the large centres a few permanent stationkeepers and watchmen are also employed. There are 133 registered brigades, and the number of registered firemen is 2,822. The number of enlistments among registered firemen was 893, and of these 162 were killed in action. In many brigades there is, in addition to the registered firemen, a number of "reserve members." The Chief Officer and the Deputy Chief Officer of the Board frequently inspect the brigades, and also pay them "surprise visits." They report monthly to the Board as to the efficiency of the service, and in regard to the equipment necessary In 1919 the chief items of the plant consisted of to be supplied. 5 steam engines, 14 motor tenders, 63 manual engines, 9 horse brakes, 61 apparatus carriages, 3 fire escapes, about 280 hose reels, and approximately 180,000 feet of canvas hose.

A section of the Fire Brigades Act provides that for the Boards. the purpose of extinguishing any fire the chief officers of the fire brigades may in the areas under their respective control "cause water to be shut off from any main or pipe in order to obtain a greater pressure and supply of water for the purpose of extinguishing any fire and no person or body having the management of any water supply shall be liable to any penalty or claim by reason of any interruption of the supply of water occasioned by compliance with the provisions of this section."

Another section of the Act provides that "each Board its officers and servants any local committee its officers and servants and any brigade registered under this Act shall have the use of all water mains water plugs valves pipes vested in or belonging to the Board of Land and Works or any public or municipal corporation or local body whatsoever and of all water therein or in any well or tank free of charge for the

purpose of extinguishing any fire or for the purpose of drills competitions and practice conducted under the authority of either board or any local committee."

Local councils have the right, in the interests of fire prevention, with the approval of the Governor in Council, of making, altering, or repealing by-laws for the purpose of regulating the height of all buildings erected in their own municipality, or in any part of it, and also for providing means of escape from such buildings during a fire.

The general duties of the Fire Brigades Boards are defined to be those "of taking superintending and enforcing all necessary steps for the extinguishment of fires and for the protection of life and property in case of fire and the general control of all stations and of all fire brigades shall be vested in the Boards for the metropolis and country districts respectively." The Boards may purchase or lease property for fire brigade stations, control the formation of permanent and volunteer fire brigades and schools of instruction, maintain fire alarms, and establish communication, telephonic and other.

The Melbourne and Metropolitan Board of Works is bound to keep all its pipes, to which fire plugs are affixed, charged with water, unless prevented by unusual drought or other unavoidable cause, or during necessary repairs, and shall allow all persons at all times to take and use such water for extinguishing fires. On 30th June, 1919, the Board had fixed to its 230 miles  $66\frac{1}{2}$  chains of leading mains and 1,346 miles 78 chains of reticulation mains 3,713 pillar hydrants, 44 Tregear patent hydrants, and 15,186 ball fire plugs, viz., 15,165 Bateman and Moore (of which 1,888 are with spring) and 21 Fowler patent—a grand total of 18,943. Except in case of accident, repairs, or cleaning, these mains are kept constantly full of water under pressure.

The Melbourne and Metropolitan Board of Works, under the water supply provisions of its Act of 1915, must, upon the request of any municipal council within its boundaries, fix proper fire plugs in the main and other pipes belonging to the Board, at convenient distances, and at such places as the Board may consider proper and convenient for the supply of water for extinguishing any fire which may break out within its limits. The cost of fixing fire plugs and notice boards, together with the cost of their maintenance, must be defrayed by the municipal council within whose limits the fire plug is fixed. The Board may also fix fire plugs for private owners, provided they pay the cost and maintenance.

Receipts and Particulars of receipts and expenditure of both Fire expenditure. Brigades Boards for the five years ended 30th June, 1919, are as follows :--

and the <del>sec</del> tor of the	1915.	1916.	1917.	1918.	1 <b>91</b> 9.
Ordinary Receipts.	£	£	£	£	£
Contributions — Govern-					
ment, Municipal, and	00.001	100.015			100 440
Insurance	93,831	102,215	96,874	98,272	100,442
Receipts for Services	6,634	7,595	5,589	6,645	7,200
Interest and Sundries	9,993	4,202	1,606	1,950	3,180
Total	110,458	114,012	104,069	106,867	110,822
Ordinary Expenditure.					
Salaries	56,104	59,162	57,511	63,114	66,767
Fire Expenses	3,261	3,331	3,325	3,343	3,439
AdministrativeCharges, &c.	24,056	21,476	22,620	19,843	17,655
Plant-Purchase and Re-	,				1. A. A.
pairs	4,224	5,309	7,560	7,934	6,607
Interest	8,838	9,871	10,567	9,927	9,255
Sinking Fund	2,735	3,526	2,604	1,644	5,727
Firemen's Accident Fund	604	311	250	250	
Miscellaneous	6,467	5,801	3,308	3,454	2,812
Total	106,289	108,787	107,745	109,509	112,262
Loan Expenditure.					
Purchase of Land and					
Erection of Buildings,&c.	28,808	14,711	5;209	14,721	8,344

# REVENUE AND EXPENDITURE OF FIRE BRIGADES BOARDS: RETURN FOR FIVE YEARS.