## CHAPTER XXV. MANUFACTURING INDUSTRY.

Note.-Working proprietors are included in all cases in the "Number of Persons Engaged ".

Single-year tables in this issue relate to the year 1943-44, and in the immediately preceding issue to the year 1941-42. Corresponding tables for 1942-43 may be found in the Production Bulletin 1942-43 No. 37, Part I.-Secondary Industries.

## § 1. Number of Factories.

1. Number of Factories in each State.-For statistical purposes, a "factory" was defined by the Conference of Statisticians in 1902 as any factory, workshop or mill where four or more persons are employed or power is used. The statistics which follow should be read in the light of this definition. The following table gives the number of factories in each State for the four years 1940-4I to 1943-44 compared with 1938-39:-

FACTORIES : NUMBER.

| Year. | N.S.W. | Victoria. | Q"land. | S. Aust. | . Aust | asmani | Australia |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | 9,464 | 9,250 | 3,087 | 2,067 | 2,129 | 944 | 26,941 |
| 1940-4I | 9,919 | 9,121 | 2,972 | 2,230 | 2,056 | 1,002 | 27,300 |
| I941-42 | 10,166 | 8,918 | 2,788 | 2,167 | 1,938 | 994 | 26,971 |
| r942-43 | 10,110 | 8,738 | 2,641 | 2,134 | 1,799 | 992 | 26,4 14 |
| 1943-44 | 10,755 | 9.317 | 2,652 | 2,149 | 1,807 | 994 | 27,674 |

2. Number of Factories in Industrial Classes.-(i) Australia. The next table shows the number of factories in Australia during 1938-39 and the last four years, classified in the industrial classes agreed upon by the Conference of Statisticians in 1930. This classification, which was introduced during 1930-3I, superseded the grouping which had been in use since 1902. The definition of a factory adopted at the Conference of Statisticians in 1902 is, however, still used. Details in regard to some of the principal industries included in the table will be found in § 9 hereinafter.

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, AUSTRALIA.


Although not the best index of manufacturing activity, the number of factories affords some indication of the development of secondary industries. From 1931-32 to 1940-4I the number of factories increased each year but in the two succeeding years there were decreases followed, however, in 1943-44 by a substantial increase which brought the number to the new high level of 27,674 .
(ii) States, 1943-44. The following table shows the number of factories in each State in 1943-44, classified according to the nature of the industry :-

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, 1943-44.


## § 2. Classification of Factories according to Number of Persons Engaged.

1. States, 1943-44.-The following table shows, for each State, the number of factories classified according to the number of persons engaged in 1943-44 :-

FACTORIES : CLASSIFICATION ACCORDING TO SIZE OF FACTORY, 1943-44.

| No. of Persong Engaged in each Factory. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. | Australis. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Fagtories. |  |  |  |  |  |  |  |
| Under 4 | 3,505 | 3,217 | 784 | 632 | 840 | 318 | 9,296 |
| 4. | 924 | 745 | 277 | 222 | 99 | 117 | 2,384 |
| 5 to 10 | 2,571 | 2,084 | 696 | 558 | 398 | 319 | 6,626 |
| 11 to 20 | 1,472 | I,315 | 380 | 290 | 181 | 106 | 3,744 |
| 21 to 50 | 1,290 | 1,066 | 266 | 254 | 183 | 76 | 3,135 |
| 51 to 100 | - 462 | 416 | 113 | IOI | 66 | 32 | 1,190 |
| Over 100 | 531 | 474 | 136 | 92 | 40 | 26 | 1,299 |
| Total | 10,755 | 9,317 | 2,652 | 2,149 | 1,807 | 994 | 27,674 |

Some marked changes have taken place during the past decade in the distribution of factories according to the number of persons engaged. In 1933-34 of a total of 23,297 factories, $10,68 \mathrm{I}$, or 45.85 per cent., had less than five persons engaged whereas in 1943-44, although the number of such factories had increased to 11,680 , this number represented only 42.21 per cent. of the total of 27,674 factories. The increase in the number of small factories is due to the inclusion of small repair establishments (boots and shoes, cycles and motors, etc.) which are technically accounted as factories owing to the installation of some power machine.

Factories with more than 100 persons engaged have advanced rapidly from 669 in 1933-34 to a new high level of 1,299 in 1943-44, the persons engaged in these factories increasing from $8_{1,634}$, or 43.58 per cent. of the total number, to 450,802 , or $59 \cdot 64$ per cent., during the same period.

The relative importance of large and small factories is illustrated by a classification of the average number of persons engaged according to the size of factory in which they work :-
factories : CLASSIFICATION OF PERSONS ENGAGED ACCORDING TO SIZE OF .... . . . . FACTORY, 1943-44.

2. Australia, 1938-39 and 1940-41 to 1943-44.-In the following table factories in Australia during 1938-39 and each of the four years 1940-4I to 5943-44 are classified according to the number of persons engaged.

FACTORIES : CLASSIFICATION ACCORDING TO NUMBER OF PERSNNS ENGAGED, AUSTRALIA.

| Year. | Establishments Employing on the Average- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20 and under. |  | 21 to 100. |  | roi and upwards. |  | Total. |  |
|  | Es-tablishments. | $\begin{gathered} \text { Persons } \\ \text { en- } \\ \text { gaged. } \end{gathered}$ | Es-tablishments. | $\begin{gathered} \text { Persons } \\ \text { en- } \\ \text { gaged. } \end{gathered}$ | Es-tablishments. | Persons engaged. | Es-tablishments. | $\begin{aligned} & \text { Persons } \\ & \text { en- } \\ & \text { gaged. } \end{aligned}$ |
| 1938-39- |  |  |  |  |  |  |  |  |
| Number | 21,982 | 129,505 | 4,013 | 170,971 |  | 272,022 | 26,94 1 | 572,498 |
| Average per establishment |  | 5.89 | .. | 42.60 |  | 287.55 |  | 21.25 |
| Percentage on total | 81.59 | 22.62 | 14.90 | 29.86 | 3.51 | 47.52 | 100.00 | 100.00 |
| 1940-41- |  |  |  |  |  |  |  |  |
| Numiber .. .. ${ }^{\text {l }}$ | 22,022 | 127,776 | 4,170 | 176,714 | 1,108 | 352,582 | 27,300 | 657,072 |
| Average per establishment, |  | 5.80 | 4, | 42.38 | $\cdots$ | 318.21 |  | 24.07 |
| Percentage on total .. | 80.67 | 19.44 | 15.27 | 26.90 | 4.06 | 53.66 | 100.00 | 100.00 |
|  |  |  |  |  |  |  |  |  |
| Numher Average per establishment | 21,494 | 126,044 5.86 | 4,245 | 179,438 | 1,232 | 428,127 | 26,971 | 733,609 |
| Average per establishmen Percentage on total | 79.69 | 5.86 17.18 | 15.74 | 42.27 24.46 | 4.57 | 347.51 58.36 | 100.00 | 27.20 100.00 |
| 1942-43- |  |  |  |  |  |  |  |  |
| Number | 21,032 | 123,039 | 4, $\mathrm{IO}_{4}$ | 173,187 | 1,278 | 469,175 | 26,414 | 765,401 |
| Averave per establishment |  | 5.85 |  | 42,20 |  | 367.12 |  | 28.98 |
| Percentage on total . | 79.62 | 16.08 | r 5.54 | 22.63 | 4.84 | 61.29 | 100.00 | 100.00 |
| 1943-44- \| | |  |  |  |  |  |  |  |  |
| Number per establishment | 22,050 | 129,239 5.86 | 4,325 | 182,561 42.21 |  | 460,802 354.74 | 27,674 | 772,602 27.92 |
| Percentage on total .. | 79.68 | 16.73 | 15.63 | 23.63 | 4.69 | 59.64 | 100.00 | 100.00 |

## § 3. Power Equipment in Factories.

1. General.-Statistics of power equipment in factories are now collected on a different basis from that used prior to $1936-37$. Previously the statistics represented the "average horse-power used " in all factories, including Central Electric Stations, but in 1936-37 information was obtained in respect of the "rated horse-power" of engines ordinarily in use and of engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of Central Electric Stations were collected in greater detail. To avoid duplication it is essential that some distinction should be made between Central Electric Stations and other classes of industries. In the following tables Central Electric Stations have been treated separately from other factories.

In para. 2 below, 1,022 factories are shown as using no power other than band-power, the distribution of these factories among the various industries being as follows: Lime, Plaster and Asphalt, 23; Chemicals, Drugs and Medicines, 26; Galvanized Ironworking, Tinsmithing, 39 ; Ready-made Tailoring and Clothing, 288; Dressmaking, So; Millinery, 44 ; Bakeries, 147 ; Cabinet and Furniture Making, 17; All other industries, 358.
2. Rated Horse power of Engines in Factories other than Central Electric Stations.The following table shows the number of factories using steam, gas, oil, electricity, or water power, those using hand-power, and the rated horse-power of engines ordinarily in use and in reserve or idle during 1943-44:-

FACTORIES $(a)$ : RATED HORSE-POWER OF ENGINES, 1943-44.

| State. |  | Number of Estabilshments. |  |  | Rated Horse-power of Engines. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Using Power. | Others. | Total | Ordinarily in use. | In Reserve or Idle (omitting obsolete). |
| New South Wales |  | No. $10,343$ | No. 310 | No. $10,653$ | $\begin{aligned} & \text { H.P. } \\ & 903,273 \end{aligned}$ | $\begin{aligned} & \text { H.P. } \\ & 90,939 \end{aligned}$ |
| Victoria |  | 8,916 | 329 | 9,245 | 602,562 | 99,588 |
| Queensland |  | 2,492 | 112 | 2,604 | 219,238 | 26,331 |
| South Austra!ia |  | 1,983 | 121 | 2,104 | 182,243 | 29,002 |
| Western Australia |  | I,583 | 122 | 1,705 | 74,182 | 7,410 |
| Tasmania |  | 962 | 28 | 990 | 84,510 | 14,315 |
| Australia. |  | 26,279 | 1,022 | 27,301 | 2,066,008 | 267,585 |

(a) Excludes Central Electric Stations.
3. Rated Horse-power of Engines Ordinarily in Use.-(i) According to Type in States. Particulars of the types of engines ordinarily in use in each State and their rated horse-power are given in the next table :-
FACTORIES $(a)$ : TYPES AND RATED HORSE-POWER OF ENGINES ORDINARILY

(a) Excludes Central Electric Stations.
(b) Excludes particulars in column (c).
(ii) Australia, 1938-39 and 1940-41 to 1943-44.-In the following table details of the horse-power of the various types of engines in use are given for Australia for the years 1940-4I to 1943-44 compared with 1938-39.

FACTORIES $(a)$ : TYPES AND RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, AUSTRALIA.

(iii) In Classes of Industry, 1943-44. The next table shows the rated horse-power of: engines ordinarily in use in the various classes of industry in each State during. 1943-44.

FACTORIES $(a)$ : RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1943-44.


[^0]4. Capacity of Engines and Cienerators installed in Central Electric Stations.(i) According to Type in Australia. Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1943-44 are given in the following table:-

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, AUSTRALIA, 1943-44.

| Particulars. | Capacity of Engines and Generators. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Steam. |  | Internal Combustion. |  |  | Water. | Total. |
|  | Heciprocating. | Turblne. | Gas. | Light Oils. | Heavy Oils. |  |  |
| $\begin{aligned} & \text { EngInes installed- } \\ & \text { Total installed } \end{aligned} \text { Rated H.P. }$ | 26,258 | 2,222,523 | 21,432 | 1,384 | 160,127 | 2+2,477 | 2,674,201 |
| Generators InstalledKilowatt capacity- |  |  |  |  |  |  |  |
| Total installed ... K.W. | 17,245 | 1,611,120 | 14,233 | 753 | 104,370 | 182,404 | 1,930,115 |
| Effective capacity , | 1 3,948 | 1,413,606 | 12,554 | 515 | 97,121 | 157,353 | 1,695,097 |
| Maximum load . $\quad$ " | 9,506 | 1,283,736 | 9,630 | 449 | 66,876 | 173,562 | 1,543,759 |
| Horse-power equivalent- |  |  |  | , |  |  |  |
| Total Installed .. H.P. | 23,118 | 2,159,787 | 18,952 | 1,009 | 139,912 | 244,522 | 2,587,300 |
| Effective capacity $\quad$ " | 18,698 | I,895,010 | 16,74x | 690 | 130,195 | 210,9.40 | 2,272,274 |
| Maximum load .. ", | 12,743 | 1,720,912 | 12,85 | 601 | 89,651 | 232,669 | 2,069,427 |

(ii) States. Details of the capacity of engines and generators installed in Central Electric Stations in each State are given in the next table for 1943-44.

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, 1943-44.


## § 4. Employment in Factories.

1. Number Engaged.-(i) General. All persons engaged in the manufacturing activities of a factory, including proprietors who work in their own business and "outworkers" (see par. 4 (ii) hereinafter) are counted as factory employees, while all those are excluded who are engaged in selling and distributing, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods and retailing storemen. Employment has been classified as follows:-(i) Working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) enginedrivers and firemen; (v) skilled and unskilled workers in the factories, mills, or workshops; (vi) carters and messengers; and (vii) others.

Prior to the year 1928-29 employment in factories was computed by dividing the sum of the number engaged each week by the number of weeks worked. The figures, therefore, represented the average number engaged over the period worked, which,
for many factories, was less than a full year. Commencing with the year 1928-29 the figure represents the equivalent average number engaged over a full year of fifty-two weeks. The classification of factories according to the number of persons engaged (see $\S 2$ ante), however. is still based on the old method, but for all other purposes the average number engaged over the full year is used.
(ii) Australia, 1934-35 to 1943-44. Particulars of the number employed, the increase in employment and the rate per cent. of such increase are given for years 1934-35 to 1943-44 in the following table:-

FACTORIES: EMPLOYMENT, AUSTRALIA.

(iii) States, 1938-39 and 1940-41 to 1943-44. The following table shows, for each of the years $1938-39$ and $1940-4 \mathrm{I}$ to $1943-44,(a)$ the average number of persons (including both sexes of all ages) engaged in manufacturing industries in each State; (b) for each State, the percentage of the total number engaged in Australia; and (c) the number engaged per ten thousand of the mean population in each State and Australia.

## FACTORIES : EMPLOYMENT.



FACTORIES: EMPLOYMENT-continued.

| Year. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Per io,ooo of Population. |  |  |  |  |  |  |  |
| 1938-39 | 837 | 1,076 |  | 730 |  | 583 | 816 |
| 1940-4I | 953 | 1,237 | 556 | 850 | 485 | 660 | 920 |
| 1941-42 | 1,060 | 1,322 | 598 | 1,078 | 512 | 733 | 1,016 |
| 1942-43 | I, 115 | 1,331 | 616 | 1,187 | 538 | 758 | 1,054 |
| 1943-44 | 1,136 | 1,314 | 611 | 1,125 | 582 | 8II | 1,055 |

2. Rates of Increase, 1938-39 and 1940-41 to 1943-44.-The percentage increase on the average number of persons engaged in the preceding year is shown below for each State for 193S-39 and 1940-4I to 1943-44.

FACTORIES : ANNUAL PERCENTAGE INCREASE OF PERSONS ENGAGED.

| Year. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | $\%$ 1.74 | \% 0.02 | $\%$ 3.82 | 1 <br>  <br> -1.62 | \% 0.34 | $\%$ 4.80 | \% 1.06 |
| 1940-4I | 12.14 | 11.85 | 3.11 | 12.86 | -1.01 | 7.97 | 10.62 |
| 1941-42 | 12.23 | 8.74 | 8.10 | 28.35 | $5 \cdot 48$ | 10.84 | 11.58 |
| 1942-43 | 5.79 | 1.53 | 3.85 | 11.49 | 7.64 | 4.29 | 4.65 |
| 1943-44 . | 2.38 | $-0.39$ | 0.61 | $-4.37$ | 8.86 | 8.09 | 0.98 |

Note.-Minus sign ( - ) Indicates decrease.
3. Persons Engaged in Classes of Industry.-(i) Australia. The following table gives the average number of persons engaged in factories under each industrial group in Australia for the years 1938 -39 and 1940-41 to 1943-44.

FACTORIES : PERSONS ENGAGED IN INDÚSTRIAL CLASSES, AUSTRALIA.

| Class of Industry. | 1938-39. | 1940-4\%. | 1941-42. | 19.42-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I. Trestment of Non-metalliferous Mine |  |  |  |  |  |
| and Quarry Products | 10,343 | 10,554 | 9,970 | 8,001 | 7,701 |
| II. Bricks, Pottery, Glass, etc. | 15,709 | 16,159 | 15,126 | 10,428 | 9,616 |
| III. Chemicals, Dyes, Explosives, Paint, Oils and Grease | 19,816 | 32,528 | 47,019 | 54,101 | 42,551 |
| IV. Industrial Metals, Machines, Implements and Conveyances | 177,677 | 221,075 | 276,113 | 328,142 | 341,030 |
| Y. Precious Bietals, Jewellery and Plate | 3,726 | 4,046 | 3,708 | 2,358 | 2,373 |
| VI. Textiles and Textile Goods | 46,082 | 57,319 | 60,482 | 58,661 | 58,539 |
| VII. Skins and Leather | 10,767 | 12,737 | 12,629 | 12,056 | 12,708 |
| VIII. Clothing | ,86,092 | 89,042 | 88,684 | 80,573 | 80,692 |
| IX. Food, Drink and Tobacco | 83,846 | 91,500 | 94,928 | 96,448 | 101,630 |
| X. Woodworking and Basketware | 30,739 | 33,851 | 35,129 | 33,658 | 34,827 |
| XI. Furniture, Bedding, etc. . . | 15,287 | 14,827 | 13,33 | 10,216 | 9,563 |
| $\begin{aligned} & \text { XII. Paper, } \\ & \text { binding, etc. } \text { Stationery, Printing, Book- } \\ &\end{aligned}$ | 39,913 | 40,090 | 38,710 | 35,645 | 35,193 |
| XIII. Rubber .. .- | 7,502 | 8,431 | 9,022 | 7,178 | 7,961 |
| XIV. Musical Instruments | 45 I | 52.4 | 532 | 392 | 353 |
| XV. Miscellaneous Products | 7,727 | 9,212 | 11,443 | 12,320 | 12,699 |
| - Total, Classes I. to XV. | 555,677 | 641,895 | 715,826 | 750,177 | 757,436 |
| XVI. Heat, Light and Power | 9,429 | 8,178 | 8,516 | 8,868 | 9,070 |
| Grand Total .. | 565,106 | 650,073 | 725,342 | 759,045 | 766,506 |

From 1938-39 until 194I-42 employment increased in all industries, except "Furniture, Bedding, etc.", "Heat, Light and Power". Following the outbreak of war in the Pacific in 194I, the transfer of man-power to the more essential industries became
apparent, and industries not directly concerned with Australia's war effort showed a marked decline. The industries which declined were those connected with Class I., Mine and Quarry Products ; Class II., Bricks, Pottery, Glass, etc.; Class V., Precious Metals ; Class VIII., Clothing ; Class XI., Furniture ; and Class XII., Paper, etc., while industries where the war-time expansion in employment occurred were those connected with Class III., Chemicals, etc. ; Class IV., Metals, etc. ; Class VI., Textiles ; Class VII., Skins and Leather ; and Class IX., Food.
(ii) States. Particulars of the numbers engaged in each industrial class are shown in the following table for each State:-

FACTORIES : PERSONS ENGAGED IN INDUSTRIAL CLASSES, 1943-44.

4. Persons Engaged According to Nature of Employment.-(i) General. In the following table the average number of persons engaged in the States during 1943-44 are olassified according to the nature of their employment :-

> PERSONS ENGAGED : NATURE OF EMPLOYMENT, 1943-44.


[^1]

This map was re-drawn from that published in the Report of the Fifth Interstate Conference on Artcsian Water, Sydney, 1928.
(ii) Outworkers. The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and technically embraces only those to whom work is given out by factory owners to be done in the employees' own homes. Individuals working for themselves are not included. The following table gives particulars of the average number of outworkers employed by factories in each State during the years $1938-39$ and 1940-41 to 1943-44.

FACTORIES : OUTWORKERS. (a)

| Year. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | - |  |  | - |  |  |
| 1938-39 | 201 | 120 | 6 | II | 7 | 11 | 356 |
| 1940-41 | 164 | 173 | 9 | 6 | 4 | 7 | 363 |
| 1941-42 | 469 | 191 | 10 | 17 | 4 | 11 | 702 |
| 1942-43 | 534 | 196 | 5 | 17 | 12 | 8 | 772 |
| 1943-44 | 531 | 289 | 4 | 19 | 12 | 7 | 862 |

(a) In all tables relating to number of hands employed in factories, outworkers are included.

The Factories Acts in each State contain provisions regulating the employment of outworkers. Records of outwork, specifying the names and remuneration of workers, and stating the places where the work is done, must be kept by factory proprietors.

5: Monthly Employment, 1938-39 and 1941-42 to 1944-45.-The number of persons employed in factories (excluding Working Proprietors) on the pay-day nearest to the 15 th of each month is shown in the following table for the years 1938-39, and 1941-42 to 1944-45-

## FACTORIES : MONTHLY EMPLOYMENT. AUSTRALIA.



FACTORIES : MONTHLY EMPLOYMENT, AUSTRALIA-continued.

6. Distribution of Employees According to Age.-(i) States. The extension of statistics of employment in factories, decided upon at the Conference of Australian Statisticians held in March, 1937, now permits of a distribution of employees (excluding working proprietors) into three age-groups. The particulars are collected in June of each year and details showing the number employed in each age-group in June, 1944, are given below :-
FACTORIES : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1944. (Excluding Working Proprietors.)

| State. |  | Under 16 Years. |  | $\left.\right\|^{16}{ }^{\text {and unders. }}$ Y ${ }^{\text {2 }}$ |  | Adul |  | Total. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | \% | No. | \% | No. | \% | No. | \% |
| New South Wales |  | 6,895 | 2.23 | 55,140 | 17.81 | 247,582! | 79.96 | 309,617 | 100 |
| Victoria |  | 8,762 | $3 \cdot 52$ | 39,200 | 15.73 | 201,426 | 80.75 | 249,383 | 100 |
| Queensland |  | 2,749 | $4 \cdot 31$ | 12,623 | 19.79 | 48,413 | 75.90 | 63,785 | 100 |
| South Australia |  | 2,252 | 3.42 | 9,633 | 14.64 | 53,914 | 81.94 | 65,799 | 100 |
| Westorn Australia |  | 1,109 | 4.03 | 5,875 | 2I.33 | 20,565 | 74.64 | 27,549 | 100 |
| Tasmania |  | 792 | 4.07 | 3,363 | 17.27 | 15,313 | 78.66 | 19,468 | 100 |
| Australia |  | 22,559 | 3.07 | 125,834 | 17.11 5 | 587,213 | 79.82 | 735,606 | 100 |

(ii) Australia. The following table shows the same age distribution in sexes for Australia in June, 1939 and 1941 to 1944 :-
FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, AUSTRALIA.
(Excluding Working Proprietors.)


## FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, AUSTRALIA-continued. <br> (Excluding Working Proprietors.)

|  | In June. | Under 16 Years. 'I5 and under 21 |  |  |  | Adults. |  | Total. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | \% | No. |  | No. | \% | No. | \% |
| Females. |  |  |  |  |  |  |  |  |  |
| 1939 |  | 15,49i | 10.43 | 56,273 | 37.87 | 76,831 | 51.70 | 148,601 | 100 |
| 1941 |  | 15,120 | S. 25 | 65.724 | 35.87 | 102,386 | 5.588 | 183,230 | 100 |
| 1942 | . | 12,032 | 5.84 | 63,558 | 30.85 | 130,444 | 63.31 | 206,035 | 100 |
| 1943 |  | 9,897 | $4 \cdot 33$ | 63,646 | 27.84 | 155,057 | 67.83 | 228,6co | 100 |
| 1944 | $\cdots$ | 9,445 | $4 \cdot 34$ | 60, 844 | 27.98 | 147,141 | 67.68 | 217,43c | 100 |
| Persons. |  |  |  |  |  |  |  |  |  |
| 1939 |  | 31,600 | 5.861 | 132,691 | 24.59 | 375,277 | 09.55 | 539,574 | 100 |
| 1941 | - | 33,9911 | 4.81 ${ }^{\text {d }}$ | 152,020 | 22.83 | 481,74I | 72.36 | 665,752 | 100 |
| 1942 |  | 28,168 | 3.94 | 132,065 | 18.47 | 554,796 | 77.59 | 715,029 | 100 |
| 1943 |  | 24,435 | 3.26 | 127,682 | 17.04 | 597,119 | 79.70 | 749,236 | 100 |
| 1944 | $\cdots$ | 22,559 | 3.07 | 125,834 | 17.11 | 587,213. | 79.82 | 735,606 | 100 |

## § 5. Sex Distribution in Factories.

1. Distribution According to Sex of Persons Engaged.-(i) General. In New South Wales the ratio of the number of females engaged in factories to the number of males during 1886 was about one to seven ; in 1891 one to six ; in 1903 it became about one to four ; and in 1943-44 was more than two to five. In Victoria the ratio of females to males during the year 1886 was about one to five. Five years later (1891) it was somewhat less, but in 1896 had increased to about one to three, and in 1943-44 was about one to two. In the remaining States the ratio was roughly one female engaged to every four males, but the increase of female workers in war-time industry increased this ratio to just below one to three in all States except Queensland. For Australia as a whole the ratio decreased slightly and in 1943-44 was about two females to five males.
(ii) Average Number of Males and Females Engaged, 1938-39 and 1940-41 to 1943-44. The following table shows the average number of males and females engaged in factories in each State for 1938-39 and the four years 1940-41 to 1943-44:-

FACTORIES : MALES AND FEMALES ENGAGED.

| State. | 1938-39. | 1940-4 1. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Males. |  |  |  |  |  |
| New South Wales | 167,172 | 194,194 | 216,856 | 223,669 | 226,824 |
| Victoria. | 136,2 18 | 161,880 | 175,691 | ${ }^{1} 75,341$ | 175,078 |
| Queensland | 43,941 | 46,567 | 49,695 | 50,325 | 50,822 |
| South Australia | 35,406 | 40,072 | 49,918 | 52,793 | 50,660 |
| Western Australia | 18,704 | 18,004 | 18,834 | 19,501 | 21,060 |
| Tasmania | 11,150 | 12,34 | 13,389 | 13,941 | 14,697 |
| Australia | 412,591 | 473,058 | 524,383 | 535,570 | 539,141 |
| Females. |  |  |  |  |  |
| New South Wales | 61,609 | 71,557 | 81,389 | 91,855 | 96,208 |
| Victoria.. | 6,5,613 | 73,756 | 82,709 | 87,017 | 86,253 |
| Queensland | 10,169 | 10,702 | 12,214 | 13,967 | 13,860 |
| South Australia | 7,965 | 10,772 | 15,334 | 19,955 | 18,909 |
| Western Australia | 4,507 | 4,730 | . 5,140 | 6,312 | 7,041 |
| Tasmania | 2,652 | 3,498 | 4,167 | 4,369 | 5,094 |
| Australia | 152,515 | 177,015 | 200,959 | 223,475 | 227,365 |

2. Rate of Variation for each Scx.-The percentages of increase or decrease on the average numbers of males and females engaged in the preceding year are shown below for the years indicated :-
anNual percentage increases of males and females engaged.


Note.-The minus sign ( - ) indicates decrease.
3. Masculinity of Persons Engaged in Factories.-The extent to which females are engaged in the factories of Australia may perhaps be more clearly shown by giving the masculinity of persons engaged in each State. The following table shows particulars for the years 1938-39 and 1940-4I to 1943-44 :-

|  |  | S | ASCULIN | $Y(a) 0$ | PERSO |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year. | N.S.W. | Victoria. | Q'land. | S. Aust. | Aus | Tas. | Australia. |
| 1938-39 | . | 271 | 208 | 432 | 445 | 415 | 420 | 271 |
| 1940-41 |  | 271 | 214 | 435 | 372 | 381 | 353 | 267 |
| 1941-42 |  | 266 | 212 | 407 | 326 | 366 | 321 | 261 |
| 1942-43 |  | 244 | 202 | 360 | 265 | 309 | 319 | 240 |
| 1943-44 | - | 236 | 203 | 367 | 268 | 299 | 289 | 237 |

(a) Number of males per 100 females.

For a number of years prior to 1926-27 there were on the average 300 males engaged in factories for every too females, but in that year the proportion of males began to fall with the increasing activity in the clothing and textile industries, in which the number of females to males is relatively high. As these trades were not so seriously affected by the depression as the heavier industries, the proportion of males continued to fall, until in 1932-33 there were only 239 males engaged to every 100 females. With the recovery of employment in the heavier industries subsequent to that year, the proportion of males per too females had increased to 271 in 1937-38 and 1938-39 but fell again to 237 in 1943-44.

The decrease in masculinity since 1938-39 was the result of the enlistment of men in the armed services and the expansion of industry caused by the rar. In many industries the younger men were released for service in the defence forces and large numbers of women were absorbed as an adjustment to the industrial effort of Australia.
4. Employment of Females in Particular Industries.-(i) General. The greater number of females in manufacturing industries are engaged in four classes, namely :IV.. Industrial Metals, Mlachines, etc.; VI., Textiles: VIII., Cloihing; and IX., Food, Drink and Tobacco. In 1943-44 these industries accounted for $80 \cdot 08$ per cent. of all females in factories. In two classes only did the number of females exceed the number of males, namely, in Class VI., Textiles, where there were 162 females to every 100 males and in Class VIII., Clothing, with 289 females per 100 males. The following tables show the average number of males and females engaged in each of these classes in 1943-44:-

MALES AND FEMALES ENGAGED IN PARTICULAR INDUSTTRIES, $1943-44$.

| Class. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust.\| | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Males. |  |  |  |  |  |  |  |
| IV. Industrial Metals, etc. | 134,749 | 86,065 | 20,531 | 28,416 | 9,961 | 6,143 | 285,865 |
| VI. Textiles and Textile Goods | 6,911 | 11,751 | 569 | 1,675 | 403 | 1,039 | 22,348 |
| VIII. Clothing .. | 8,278 | 9.108 | 1,275 | 1,206 | 647 | 230 | 20,744 |
| 1X. Food, Lrink and Tobacco | 21,467 | 22,281 | 15,022 | 6,109 | 3,296 | 2,695 | 70,870 |
| A.l Other Classes .. | 55,479 | 45,873 | 13,425 | 13,254 | 6,753 | 4,590 | 139,314 |
| Total | 226,82.4 | 175,078 | 50,822 | 50,660 | 21,060 | 14,697 | 539,14 I |
| Females |  |  |  |  |  |  |  |
| IV. Indistrial Metals, etc. VI. Textiles and Textile Goods | 28,274 13,472 | 16,542 18,115 | 2,772 935 | 5,012 | 1,849 470 | 716 $\times, 694$ |  |
| VIII. Textiles and Textile Goods | 13,472 23,910 | 18,115 24,343 | 935 4,901 | 1,505 3,861 | 470 2,405 | 1,694 528 | 36,191 59,948 |
| IX. Food, Drink and Tobaceo | 12,195 | 10,363 | 2,923 | 2,448 | -1,3こ9 | 1,502 | 39,948 30,760 |
| All Other Classes . | 18,357 | 16,890 | 2,329 | 6,083 | 988 | 654 | 45,301 |
| Total | 96,208 | 86,253 | 13,860 | 18,909 | 7,041 | 5,094 | 227,365 |

(ii) Females Engaged in Clothing Trade.-The employment of females in the several industries of Class VIII., Clothing, which is the most important group, and the relation of their number to that of the males so engaged are shown in the following table :-

FEmALES ENGAGED IN EACH INDUSTRY IN CLASS VIII., 1943-44.

| Industry. | New South Wales. |  |  | Victoria. |  |  | Other States. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Femininity. (a) | Males. | Females. | Femininity. (a) | Males. | Females. | Femluinity. (a) |
| Talloring and Readymade Clothing | 1,802 | 10,819 | 600 | I,53I | 6,050 | 395 | 933 | 4,737 | 508 |
| Waterproof and Oilskin Clothing | 1,802 11 | 10,819 60 | 545 | 1.531 98 | 690 | 395 296 |  |  |  |
| Dressmaking .. | 28 | 1,423 | 5,082 | 548 | 7,110 | 1,297 | 65 | 2,370 | 3.646 |
| Millinery . . | 98 | 898 | 916 | 72 | 651 | 904 | 38 | 521 | 1,371 |
| Shirts, Collars and Underclothing .. | 307 | 4,035 | 1,314 | 259 | 3,008 | 1,161 | 141 | 1,966 | 1,394 |
| Stays and Corsets.. | 65 | +613 | 943 | 69 | 527 | 764 | 9 | 133 | 1,418 |
| Handkerchiefs, Ties and Scarves | 73 | 553 | 757 | 25 | 209 | 836 | - | is8 |  |
| Hats and Caps | 562 | 730 | 130 | 554 | 533 | 96 | 26 | 158 | 607 |
| Gloves Boots and Shoes $\quad$. | . 37 | 209 | 565 | 65 | 409 | 629 | 19 | 145 | 763 |
| Boots and Shoes ( 0 - | 2,876 | 2,903 | IOI | 4,337 | 4,086 | 94 | 1,308 | 988 | 76 |
| cluding Bespoke Work) | 1,266 | 112 | 9 | 641 | 32 |  |  | 49 | 10 |
| Boot Accessories ... | 243 | 139 | 57 | 121 | 140 | 118 | 512 | 49 | 10 |
| Uinbrellas atad Walking Sticks | 18 | 36 | 200 | 8 | 15 | 188 | 4 | 12 | 300 |
| Dyeworks and Cleaning (including Re- |  |  |  |  |  |  |  |  |  |
| novating and |  |  |  |  |  |  |  |  |  |
| Other $\quad .$. | 850 42 | 1,167 213 | 137 | 708 | 863 | 122 | 299 | 61.4 | 205 200 |
| Total | 8,278 | 23.910 | 289 | 9,108 | 24,343 | 267 | 3,35 | 11,695 | 348 |

(a) Number of females per 100 males.

## § 6. Child Labour in Factories.

I. Conditions of Child Labour.-The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. The object of the restrictions imposed is to ensure amongst other things that a proper period shall be devoted to primary education, and that the early yeara of labour shall not exhaust the worker before the attainment of full growth.
2. Number of Children Engaged, 1939 and 1941 to 1944 .-In the returns for the various States, the term "child" denotes any person under sixteen years of age. The decline in the number of children employed from the peak of 33,553 reached in June, 1940, to 22,559 in June, 1944, which is most marked, particularly in New South Wales, was probably caused by several factors including (i) the raising of the school leaving age in New South Wales (ii) fewer children available for employment owing to the decline in the birth rate which occurred about 1929 and (iii) the high level of employment which enabled parents to keep their children at school beyond the statutory leaving age.

The following table shows the number of children of each sex employed in manufacturing industries in June of the years 1939 and 1941 to 1944.

FACTORIES : CHILDREN ENGAGED, JUNE.

| State. | 1939. | 1941. | 1942. | 1943. | 1944. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Males. |  |  |  |  |  |
| New South Wales | 5,759 | 5,901 | 5,125 | 4,22I | 3,88I |
| Victoria. | 6,167 | 5,775 | 5,458 | 5,251 | 5,03I |
| Queensland | 1,790 | 2,113 | 2,526 | 2,126 | 1.732 |
| South Australia | 1,296 | 1,732 | 1,593 | 1,506 | 1,232 |
| Western Australia | 705 | 822 | 880 | 878 | 7.53 |
| Tasmania | 392 | 528 | 553 | 556 | 485 |
| Australia | 16,109 | 16,871 | 16,135 | 14,538 | 13,1 14 |
| Females. |  |  |  |  |  |
| New South Wales | 7,084 | 6,799 | 4,668 | 3,158 | 3,OI4 |
| Victoria. | 5,005 | 4,664 | 3,754 | 3,477 | 3,73I |
| Queensland | 1,334 | 1,325 | 1,503 | 1,308 | 1,O17 |
| South Australia | 1,053 | 1,363 | 1,280 | 1,206 | 1,020 |
| Western Australia | 52 I | 553 | 456 | 404 | 356 |
| Tasmania | 500 | 416 | 372 | 344 | 307 |
| Australia | 15,497 | 15,120 | 12,033 | 9,897 | 9,445 |
| Total. |  |  |  |  |  |
| New South Wales | 12,843 | 12,700 | 9,793 | 7,379 | 6,895 |
| Victoria. | 11,172 | 10,439 | 9,212 | 8,728 | 8,762 |
| Queensland | 3,124 | 3,438 | 4,029 | 3,434 | 2,749 |
| South Australia | 2,3,49 | 3,095 | 2,873 | 2,712 | 2,252 |
| Western Australia | 1,226 | 1,375 | 1,336 | 1,282 | 1,109 |
| Tasmania | 892 | 944 | 925 | 900 | 792 |
| Australia | 31,606 | 31,991 | 28,168 | 24,435 | 22,559 |

3. Percentage of Children on Total Number of Persons Engaged.-The following table shows the percentage of children on the total number of persons engaged in the various States for June of each of the five years 1939 and 1941 to 1944. In 1944 the percentage was highest in Queensland and lowest in New South Waler.

PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF PERSONS ENGAGED. Excluding Working Proprietors.)

4. Industries Employing Child Labour.-The distribution of children employed in factories in June, 1944, and the percentage on the total number employed are given in the following table according to the class of industry :-

FACTORIES : CHILDREN EMPLOYED, BY CLASSES, JUNE, 1944.

| Class of Industry. | Children Employed. |  | Total Number Employed.(a) |  | Percentage of Children on Total Number Employed.(a) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Males. | Females. | Males. | Females. |
|  | No. | No. | No. | No. | \% | \% |
| I. Treatment of Non-metalliferous Mine and Quarry Products . . | 117 | 15 | 6,980 | 425 | 1.68 | 3.53 |
| II. Bricks, Pottery, Glass, etc. . . | 206 | 40 | 8,438 | 1,164 | 2.44 | 3.44 |
| III. Chenicals, Dyes, Explosives, Paint, Oils and Grease | 376 | 358 | 24,742 | 13,093 | 1.52 | 2.73 |
| IV. Industrial Metals, Machines, Implements and Convevances | 6,207 | 1, 177 | 276,493 | 51,406 | 2.24 | 2.29 |
| V. Precious Metals, Jewellery and Plate | 75 | 24 | 1,444 | 583 | 5.19 | 4.12 |
| VI. Textiles and Textile Goods $\quad$. | 867 | 1,662 | 22,221. | 34,701 | 3.90 | 4.79 |
| VII. Skins and Leather .. | 152 | 115 | 8,879 | 3,334 | 2.05 | 3.45 |
| VIII. Clothing .. | 6.44 | 3,878 | 17,793 | 60,088 | 3.62 | 6.45 |
| IX. Food, Drink and Tohaceo .. | 1,660 | 1, 116 | 68,932 | 29,5.55 | 2.41 | 3.78 |
| X. Woodworking and Basketware | 1,069 | 82 | 31,114 | 1,869 | 3.44 | 4.39 |
| XI. Furniture, Berding, etc. . . | 539 | 60 | 6,984 | 1,910 | 7.72 | 3.14 |
| XII. Paper, Stationery, Printing, Bookbindiug, etc. | 758 | 714 | 21,672 | 12,392 | 3.50 | 5.76 |
| XIII. Rubber .. | 114 | 31 | 5,828 | 2,04 1 | 1.96 | 1.52 |
| XIV. Musical Instruments | 11 | 4 | 237 | 100 | 4.64 | 4.00 |
| XV. Miscellaneous Products | 232 | 168 | 7,320 | 4,662 | 3.17 | 3.60 |
| Total, Classes I. to XV. | 13,057 | 9,444 | 509,077 | 217,323 | 2.56 | $4 \cdot 35$ |
| XVI. Heat, Light and Power | 57 | 1 | 9,099 | 107 | 0.63 | 0.93 |
| Grand Total . | 13,114 | 9,445 | 518,176 | 217,430 | 2.53 | $4 \cdot 34$ |

(a) Excludes Working Proprietors.
5. Apprenticeship.-In all the States, Acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

## § 7. Salaries and Wages Paid and Value of Production.

Note.-In all tables relating to salaries and wages paid in factories the amounts drawn by working proprietors are excluded.

1. General.-The importance of the manufacturing industries of Australia is indicated by the fact that the total value of the output for $1943-44$ was $£ 891,739,216$, of which amount $£ 498,923,060$ represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and $£ 26,580,669$ the value of the power, fuel and light used. The difference between the sum of the last two amounts and the value of the output, namely $£ 366,235,487$, represents the value of production as defined by the Conference of Statisticians at Sydney in 1925, i.e., " the value of consumable commodities produced during the year, deducting so far as possible, the value of goods consumed in process of production." The total amount of salaries and wages paid in factories in 1943-44 was $£ 216,873,8$ 19. This figure, which excludes amounts drawn by working proprietors, shows an increase of $£ 8,006,976$ or 3.8 per cent. on that for the previous year.
2. Salaries and Wages Paid.-(i) In Classes of Industry, 1943-44. The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table:-

FACTORIES: SALARIES AND WAGES PAID, 1943-44.

(ii) Totals and Averages, 1938-39 and 1940-41 to 1943-44. The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for each of the years 1938-39 and 1940-41 to 1943-44. The average wage paid is not comparable with that shown in similar tables in issues of the

Official Year Book prior to No. 23, 1930, on account of the change in the method of computing the average number of hands employed, as explained earlier. The figures exclude working proprietors and the amounts drawn by them :-

FACTORIES : TOTAL AND AVERAGE SALARIES AND WAGES PAID.


In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VIII., Clothing, comprising a high percentage of women and children. The highest average wages per employee in 1943-44 were paid in New South Wales, Victoria and Queensland in that order.

Since 1933-34 the average earnings per employee have risen each year and in 1943-44 attained a record high level as a result of war-time conditions.
(iii) Earnings of Males and Females, 1943-44. The following table shows the approximate amount of salaries and wages paid to males and females in each class of industry in each State during the year 1943-44:-

SALARIES AND WAGES : MALE AND FEMALE FACTORY EMPLOYEES, 1943-44.


SALARIES AND WAGES : MALE AND FEMALE FACTORY EMPLOYEES, 1943-44-continued.


Females.

(iv) Total and Average Earnings of Males and Females, 1938-39 and 1940-41 to 1943-44. Particulars for these years are given in the table hereunder :-

## total and average salaries and wages : males and females.

| Particulars. | N.S.W. | Victoria. $\mid$ Qland. $\mid$ S. Aust. $\mid$ W. Aust. $\mid$ Tas. $\mid$ Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Males.

| 1938-39. | Amount paid | 38,271,867 | 29,005,746 | 9,920,001 | 7,487,828 | 4,128,824 | 2,234,4 13 | 91,048,679 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Per cent, on total | 85.80 | 80.51 | 91.12 | 91.66 | 90.28 | 90.10 | 85.30 |
|  | Average per employee $£$ | 239.24 | 224.47 | 238.59 | 220.95 | 235.49 | 212.09 | 231.84 |
| 1940-41. | Amount yaid | 49,539,287 | 40,389,071 | 11,076,635 | 9,340,490 | 4,241,954 | 2,687,453 | ,2-4,890 |
|  | Per cent. on total .. | 85.77 | 8 I .1 II | 91.06 | 89.65 | 89.86 | 87.83 | 85.03 |
|  | A verage per employee $\mathfrak{f}$ | 265.35 6.850 .15 | 260.54 | $\begin{array}{r}249.91 \\ \hline\end{array}$ | $\begin{array}{r}242.30 \\ \hline\end{array}$ | 25 I .14 | 229.34 | 258.77 |
| 1941-42. | Anount raid Per cent. on total ... d | 64,850,115 | 52,180,184 | 13,059,246 | 14,185,487 | 4,928,138 | 3,238,564 | 152,441,674 |
|  | Yer cent. on total .. | $85.60$ | 8 I .07 | 90.21 | 87.38 | 89.6 r | 87.04 | 84.67 |
|  | Average per employee $£$ | 309.85 | 308.76 | 274.06 | 292.68 16.18 | 276.88 | 253.09 | 301.86 |
| $1942-43$.$1943-44$. | Amonint paid ..s | 74,554.677 | 58,089,270 | 14,939,988 | 16,118,870 | 5,650,928 | 3,876,990 | 173,230,723 |
|  | Per rent. on total | 83.86 | 79.54 | 89.26 308.49 | 83.76 313.74 | 87.24 | 86.68 | 82.94 |
|  | Averare per employee $£$ | 344.72 | - 344.06 | [ 308.49 | 313.74 | 304-34 | 290.30 | 335.17 |
|  | Amoint paid .. $£$ | 77,087,334 | 58,610,714 | 15,984,325 | $15,499,866$ | $\|6,367,387\|$ |  | 177,923,924 |
| 1943-44. | Per rent, on total | $82.43$ | $79.25$ | 88.45 | $82.84$ | $85.84$ | $8+.22$ | 82.04 |
|  | Averare per emplorsee $£$ | 352.15 | 349.02 | 326.70 | 354.99 | 316.28 | 310.15 | 342.68 |

'TOTAL AND AVERAGE SALARIES AND WAGES: MALES AND FEMALES -continued.

|  | Particulars. N.S:W. | Victoria. | Q'lind. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Females. |  |  |  |  |  |  |  |
| 1938-39. | Amount paid .f. $6,334,630$ | 7,020,796 | 967,228 | 681,522 | 444,734 | 1 | $15,694,383$ |
|  | Per cent. on total 14 . 20 | 19.49 | 8.88 | 8.34 | 9.72 | 9.90 | 14.70 |
|  | Average per employee $£ \quad 103.66$ | 108.25 | 96.00 | 86.44 | 99.58 | 93.19 | 103.92 |
| 1940-41. | Anhount paid .. $8,220,245$ | $9,407,536$18.89 | $\begin{array}{r} 1,087,128 \\ 8.94 \end{array}$ | $1,078,415$10.35 | $\begin{array}{r} 47 S, 609 \\ 10.14 \end{array}$ | 372,249 20,644,178 |  |
|  | Per cent. on total .. 14.23 |  |  |  |  |  | $\begin{array}{r} 117.97 \\ 127,610,538 \end{array}$ |
| 1941-42. | Average per employee $£ \quad 115.79$ | 125.37$12,183,093$ | 102.43$1,417,522$ | 101,13$2,048,677$ | 102.11 | 107.18 |  |
|  | Amount paid $\ldots$. ${ }^{\text {P }}$ I0,907,54I |  |  |  | 571,430 | 482,275 |  |
|  | Per cent. on total $\ldots 1$ I4-40 | $\begin{array}{r}18.93 \\ \hline\end{array}$ | 9.79 | 12.62 | 10.39 | $12.96$ | $15 \cdot 33$ |
| 1942-43. | A verage der employee $\frac{134.961}{}$ | 148.57 | 116.85 | $134.47{ }^{1}$ | 111.89 | 116.55 | 138.44 |
|  |  | 14,945,983 | 1,797,55 | 3,124,420 | $826,185$ | $595,826$ | $35,636,120$17.06 |
|  | Per cent. on total .. ${ }^{\text {d }}$ ( 6.14 | 20.46 | 10.74 | 16.24 | $\begin{array}{r} 131.70 \\ 050.208 \end{array}$ | $13 \cdot 32$ |  |
| 1943-44. | Average per employee $f$ fris7.291 | 173.10 $15,350,479$ | 129.55 $2,087,36.4$ | 157.27 $3,211,547$ |  | 137.19 819,305 | $160.59$ |
|  |  | $15,350,479$ 20.75 | 2,087,36.4 | 3,211,547 | $1,050,208$ 14.16 | 819,305 15.73 | $\begin{array}{r} 38,949,895 \\ 17.06 \end{array}$ |
|  | Average per employee $\mathrm{E}_{\text {: }}^{\text {a }}$ ( 72.071 | $\pm 79.65$ | 151.65 | 169.77 | I 50.14 | 161.57 | 175.30 |

(v) Managers, Overseers and Other Employees. A further analysis of salaries and wages paid is given in the following table and shows the amounts paid to managers, overseers, etc., and those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases:-

## SALARIES AND WAGES : MANAGERS, OVERSEERS, ETC., AND OTHER EMPLOYEES, 1943-44.

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{Class of Industry.} \& \multicolumn{6}{|c|}{Salaries and Wages Paid to-} \\
\hline \& Managers, Overseers, Accountants and Clerks. \& \multicolumn{2}{|l|}{All Other Employees.} \& \multicolumn{3}{|c|}{All Employees.} \\
\hline \& Males. Femajes. \& Males. \& Females. \& Males. \& Females. \& Total. \\
\hline 1. Treatment of Nonmetalliferous Mine and Quarry Products \& \begin{tabular}{c|c|}
\(£\) \& \(\pm\) \\
333,054 \& 45,376
\end{tabular} \& £
\(2,000,246\) \& \(£\)
\(\cdot\)
23,502 \& \(£\)
\(2,333,300\) \& \(\mathcal{E}\)
68,878 \& \(£\)

2,178 <br>

\hline II. Bricks, Pottery, Glass, etc. \& $$
316,105, \quad 62,256
$$ \& 2,297,932 \& 128,955 \& 2,614,037 \& 191,211 \& 2,805,248 <br>

\hline III. Chemicals, Dyes, Explosives, Paint, Olls and Grease \& | $1,642,966$ | 486,976 |
| ---: | ---: | ---: | \& 7,894,406 \& 2,607,590 \& 9,537,372 \& 3,094,566 \& 12,635,938 <br>

\hline IV. Industrial Metals, Machines, Implements and Conveyances \& |2,669,375:2,908,469 \& 86,158,864 \& \& 98.828 .239 \& 11,132,794 \& 109,961,033 <br>

\hline v. Precious Metals, Jewellery and Plate \& | $12,669,375$ | $2,908,469$ |
| ---: | ---: |
| 57,810 | 26,784 | \& $86,158,864$

392,272 \& $8,234,325$
89,028 \& 98.828 .239
450,082 \& $11,132,794$
115,812 \& $109,961,033$
565,894 <br>
\hline VI. Textiles and Textile Goods \& 1,162,741 ${ }^{3} \mathbf{3 6 4 , 3 9 9}$ \& 6,031,254 \& 5,532,913 \& 7,193,995 \& 5,897,312 \& 13,091,307 <br>
\hline VII. Skins and Leather \& 338,483 58,726 \& 2,630,832 \& 513,268 \& 2,969.315 \& 571,994 \& 3,541,309 <br>
\hline VIII. Clothing Frink, and \& 909,296 565,156 \& 4,739,099 \& 8,788,005 \& 5,648,395 \& 9,353,161 \& 15,001,556 <br>

\hline IX. Food, Drink, and Tohacco \& | $3,567,321$ | 887,119 |
| :--- | :--- | :--- | \& 18,874,5 53 \& 3,824,050 \& 22,441,834 \& 4,711,169 \& 27,153,003 <br>


\hline X. Woodworking and Basketware \& | 917,226 | 175,068 |
| :--- | :--- | :--- | \& 7,871,505 \& 125,028 \& 8,788,731 \& 300,096 \& 9,088,827 <br>


\hline | XI. Furniture, Bedding, etc. |
| :--- |
| XII. Paper, Stationery | \& 216,192 $73,73 \mathrm{~s}$ \& 1,751,297 \& 23 S,945 \& 1,967,489 \& 312,676 \& 2,280,165 <br>


\hline | XII. Paper, Stationery, |
| :--- |
| Printing, Book- | \& \[

1
\] \& \& \& \& \& <br>

\hline binding, etc. \& 1.374,018 ${ }^{\prime}$ 460,344 \& 5,995,150 \& 1,485,363 \& 7,369,168 \& 1,945,707: \& 9,314,875 <br>

\hline XIII. Rubber \& $$
426,285 \quad 89,852
$$ \& 1,611,278 \& 293,004 \& 2,037,563 \& 382,856 \& 2,420,419 <br>

\hline | XIV. Musical Instruments |
| :--- |
| XV. Miscellaneous Pro- | \& \[

13.817, \quad 8,817
\] \& 63,763 \& 8,679 \& 77,580 \& 17,496 \& 95,076 <br>

\hline ducts \& 370,2711 120,435 \& 1,980,127 \& 715,74. \& 2,350,398 \& 836,177 \& 3,186,575 <br>
\hline Total, Classes I. to XV. \& 24,314,960 6,333,508 \& 150,292,538 \& 32,598,397 \& 174,607,498 \& 38,935,905 \& 213,539,403 <br>

\hline XVI. Heat, Light and Power .. Grand Total \& $$
\frac{540,582}{24,855,542} \frac{14,96,348,416}{6}
$$ \& $\frac{2.775,844}{153 \mathrm{c} 58,382}$ \& $\frac{3,082}{32,601,479}$ \& 177,923,924 \& $\frac{17,990}{38940805}$ \& $\begin{array}{r}3,334.416 \\ \hline 216,873.819\end{array}$ <br>

\hline Grand Total \& 24,855,542, 6,348,416 \& $153 \mathrm{c} 68,382$ \& 32,601,479 \& 177,923,924 \& 38,940,805 \& 216,873,819 <br>
\hline Average patd per employee \& $48.3 .77 \quad 188.44$ \& 327.18 \& 169.84 \& 342.68 \& 172.62 \& 291.16 <br>
\hline
\end{tabular}

3. Power, Fuel and Light Used.-(i) In Classes of Industry, 1943-44. The expenditure by factories on power, fuel and light is of considerable importance; in 1943-44 it amounted to $£ 26,580,669$, an increase of $£ 954,147$ as compared with the previous year. The following table shows the value of power, fuel and light used in the different classes of industry in 1943-44:-

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED (a), 1943-44.

(a) Includes value of lubricants and water.
(ii) Values of Items, 1943-44. The following table shows the values of the various items of power, fuel and light used in factories in each State during the year 1943-44:FACTORIES : VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED (a), 1943-44.

| Particulars. | N.S.W. | Victoria. | Q'land. | S. Anst. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\pm$ | ${ }^{\text {£ }}$ | ¢ | ${ }_{8} \stackrel{( }{\mathbf{s}}$ | $\ddagger$ | £ | ¢ |
| Coal | 3,907,140 | 2,646,154 | 1,034,117 | 821,140 | 333,249 | 124,755 | 8,866,555 |
| Cuke | 2,361,577 | 270,186 | +3,436 | 105,236 | 48,115 | 8,096 | 2,836,646 |
| Wood | 211.623 | 337,134 | 187,840 | 175,253 | 256,518 | 157,609 | 1,325,977 |
| Other (Charcoal, etc.) | 211,441 | -63,195 | 29.249 | 98,775 | 14,295 | 6,617 | 523,572 |
| Fuel Oil . . .. | 1,119,860 | 575,281 | 192.155 | 2)2,465 | 429,008 | 55,839 | 2,644,608 |
| Gas | 1,OII, 387 | 209,735 | 30,927 | 79,185 | 20,679 | 36,232 | 1,388, $1+5$ |
| Electricity | 3,042,900 | 1,975,703 | 428,765 | 703,566 | $2 \mathrm{~S}_{4,282}$ | 396,313 | 6,831,529 |
| Water and Lubricating Oil | 942,112 | 649,354 | 215,624 | 180,429 | 117,198 | 58,920 | 2,163, |
| Total | 12,808,040 | 6,826,742 | 2,162,113 | 2,+36,049 | 1,503,344 | 844.381 | 26,580,669 |

(a) Includes value of lubricants and water.
(iii) Quantities of Fuel used, 1943-44. The following table shows the quantities of items of fuel used in factories in each State during the year 1943-44:-

FACTORIES : QUANTITIES OF FUEL USED, 1943-44.

| Particulars. | Unit. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tus. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coal | Ton | 3,036,600 | 4,930,756 | 634,871 | 383,661 | 215,241 | 75,356 | 9,276,485 |
| Coke | ", | 1,599,071 | 130,713 | 23,22I | 47,341 | 17.908 | 4,004 | I, 8i6 $=58$ |
| Wood |  | 169,482 | 432,073 | 240,556 | 154.557 | 341.980 | 160,401 | 1,499,049 |
| Fuel Oi' | Gal | 22.718.008 | 1 1.870 .738 | 3.230 .128 | 5009.117 | 7.624 .873 | 575,436 | 52,027.390 |

(iv) Total Value, 1938-39 and 1940-41 to 1943-44. The next table gives the sums expended on power, fuel and light during the years $1940-41$ to 1943 -44 compared with 1938-39:-

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED.(a)

(a) Inc!uges value ul lubticants wha water.
4. Value of Materials Used.-(i) In Classes of Industry, 19+3-44. The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in $1943-44$ was $\mathfrak{E}_{4} 98,923,060$, representing 55.95 per cent. of the value of the final output (see par. 5). The following table shows the value of the materials used in various classes of industry in each State :-

FACTORIES: VALUE OF MATERIAIS USED, 1943-44.

| Class of Industry. | N.S.W. | Victoria. | Qland. | S. Aust. | W. Aust. | Tas. | Australla |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Nonmetatliferons Mine | $£$ | $£$ | £ | £ | £ | $£$ | £ |
| and Quarry Products .. | 3,897,779 | 1,109,183 | 526,449 |  | 178,714 | 172,202 | 39 |
| II. Brick?, Pottery, Glass, etc. |  | $508,832$ |  | $59,44^{\circ}$ | 50,815 |  |  |
| III. Chemicals, Dyes, Explosives, Paint Oils and Grease | 14,152,671 | 12,196,141 | 966,808 | 5,360,316 | 1,425,026 | 196,267 | 34,297,229 |
| IV. Industrial  <br> Machines,  <br> ments and Mmplals. <br> Ieyances Con- <br> ver  | 95,454,529 | 37,852,677 | 7,360,884 | 13,452,040 | 3,446,0581 | 8, 854,174 | 160,420,362 |
| V. Precious Metails. Jewellery and Plate | 240,357 | 47,852,078 | 1,4,957 | 33,264 | 20,226! | 365 | 760,037 |
| I. Textiles and Textile Goods .. | 13,127,249. | 18,148.55 ${ }^{-1}$ | 904,9121 | 2,279,365 | 467,542 | 1,535,099 | 36,463,6r9 |
| VII. Skins and Leather | 4.999,68 | 3,548,860 | 2,526,856 | 216,675 | 253,372 | 293,-36 | I $1,838,588$ |
| VIII. Clothing - | I $1,849,42=$ | 14,572,65t | 1,542,215 | 951,675 | 763,600 | 136, 186 | 29,815,752 |
| 1X. Food, Drink ani Tobacco | 53,095 | 46,903,94* | 38,752,785 | ,892,580 | 6,706,645' | 4,074,97= | $10,426,072$ |
| X. Woodworking and Basketware . | 8,085,49: | 4,580,58. | 3,196,348. | 1,405,243\| | 954,261' | 711,39 | ,8,942,326 |
| XI. Furniture, Bedding etc. | 1,999, | 1,295, 16 | 518,290 | 354,602 | 225,533 ${ }^{\prime}$ | 84,69 | 4,477, 387 |
| XII. Paper, Stationery, Printing, Buokbinding, etc. | 768,12r | 6,717,14 | 810,618 | 903 | 387,757 |  |  |
| XIII. Ruhber . | 3,720,33 | 3,426,63 | 318,368 | 89,954 | 46,840 | 27, 25.1 | $7,133,445$ $7,027,582$ |
| XIV. Musical Instruments | 48,63 ${ }^{\text {- }}$ | 5,57 | - | 1,104 | 315 | . | 56,543 |
| $\begin{array}{cc}\text { XV. Miscellaneous } & \text { Pro- } \\ \text { ducts } & .\end{array}$ | 1.940 .27 | 1,589,57\% | 86,155 | :35,828 | 59,863 | 26, $\mathrm{I}^{\prime}$ | $2,816.928$ |
|  | 221,742,577 | 152,915,454 | 57,586,299 | $36,35, \overline{5,703}$ | $3{ }^{3,986,576}$ | 10,893, 870 | +94.480.479 |
| XVI. Heat, Light and <br>  Grand Total | $1,861,063$ | $\frac{1,575,200}{154,490,654}$ | $\frac{350.407}{57.045,790}$ | $\frac{375,139}{36,730,842}$ | 1-207,142! | $\frac{64,544}{10.058,14}$ | $1,442,581$ $498,923,060$ |
| Girand rotal | 3,603,640 | 154,490,654 | 57:945,790 | 36,730,842 | 15,193,713 | 10,958.41C | 498,923,060 |

(ii) Total Amount, 1938-39 and 1940-4I to 1943-44. The following table gives the values of materials used in factories for the years 1940-4I to 1943-44 compared with 1938-39: -

FACTORIES : VALUE OF MATERIALS USED.

| Year. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underline{1}$ |  |  | £ | £ | $\pm$ | $\pm$ |
| 1938-39 | 12n,501,795 | 82,971,608 | 42,596,049 | 20,308,797 | 9,603,657 | 5,321,540 | 281,303,446 |
| 1940-41 | 161,252,339 | 115,209,347 | 46.936,189 | 25,283,547 | 11,498,304 | 6,978,129 | 367,157,852 |
| 19+1-42 | 189,469,148 | 140,198,887 | 40,384,62.4 | 33,264,628 | 12,452,275 | 8,300,918 | $433,160,480$ |
| 1942-43 | 207,509,130 | 149,630,126 | 55,063,141 | 36.745,047 | 13,845,868 | 9,826.766 | 472,720,078 |
| 1943-44 | 2-3,603,640 | 154,490,654 | 57,045,796 | 35,730,842 | 15,193,713 | 10,930,4:0 | 498,923,060 |

5. Value of Output.-(i) In Classes of Industry, 1943-44. The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1943-44 is shown in the following table. The figures given represent not only the increase in value due to the process of manufacture, but include also the values of the raw materials and the power, fuel and light used. The difference between the sum of the values of the materials and of the power fuel and light used, and the value of output is the real value of factory production (see par. 6).

FACTORIES : VALUE OF OUTPUT, 1943-44.

| Class of Industry. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Treatment of Non- | E | £ | $\pm$ | £ | $\pm$ | £ | £ |
| ducts.. | 6,596,208 | 2,565,401 | 1,078,709 | 771,837 | 414,110 | 439,078 | 11,865,343 |
| II. Bricks, Pottery, Glass, etc. | 4,442,182 | 2,037,535 | 308,532 | 579,532 | 225,159 | 34,165 | 7,627,104 |
| III. Chemicals, Dyes, Explosives, Paint, Oils and Grease. . | 24,325,551 | 22,779,005 | 1,584,959 | 10, $811,9.55$ | 2,050,368 | 261,075 | 6士,813,913 |
| IV. Industrial Metals, Machines, Implements and Con- |  |  |  |  |  |  |  |
| v veyances meta | 179,798,028 | 86,83+,407 | 7,860,22 | 6,540,420 | 8,737,825 | 6,689,943 | 326,460,849 |
| V. Precious Metals, |  |  |  |  |  |  |  |
| Plate . | 654, $\mathrm{Ir}_{3}{ }^{+}$ | 951,237 | 64,244 | 96,791 | 45,387 | 3.525 | 1,815,297 |
| VI. Textiles and Textile | 21,548,078 | 30,461,302 | 1,364,835! | 3.569,045 | 722,971 | 2,662,34 1 | 60,328,572 |
| VII. Skins and Leather | 7,895,98: | 5,781,860 | 3,108,078. | 383,722 | 492,478 | 395,736 | 18,057,855 |
| VIII. Clothing | 22,068,767, | 25,855,930 | 3, 149,340 | 2,228,565 | 1,519,806 | 326,2,45 | 55, 148,653 |
| IX. Food, Drink and Tohacco | 76,095,151 | 67,351,533 | 49,832,2961 | 15,391,09: | 9,730,34 ${ }^{8}$ | 5,912, 5 I2 | 224,213,235 |
| X. Woodworking and Basketware |  |  |  |  |  |  |  |
| Basketware XI. Furniture, Bedding, cte. | $13,838,985$ $3,786,136$ | $8,785,451$ $2,452,199$ | $5,859,331$ $1,031,365$ | $2,317,177$ 714,832 | $1,947,823$ 438,636 | $1,400,146$ 187,865 | $34,148,913$ $8,611,033$ |
| XII. Paper, Stationery, Printing. Book-1 binding, etc. | $16,048,9831$ | $13,356,139$ | 2,045.822 | 1,685,827 | 1,005,972 | 2,219.515 | 36,362,258 |
| XIII, Rubber .. | 5,504,107 | 5,491,770 | 498.906 | 180,390 | 99,659 | 61,668 | I 1,828,500 |
| XIV. Musical $\underset{\text { ments . Instru- }}{ }$ | 175,090 | 22,768 | 8,453 | 9:592 | 3,0 |  | 218,991 |
| $\begin{array}{cr} \text { XV. Miscellaneous } & \text { Pro- } \\ \text { ducts . } & . \end{array}$ | $4,573,228_{i}$ | $3,841,659$ | 278,960 | 313, $5^{8} 4$ | 159,616 | 103,829 | 9,270,886 |
| $\begin{array}{ccc} \text { Total, Classes I. to } \\ \mathbf{X V} . & . & . \end{array}$ | 387,355,588 | 278,568,206 | 88,066,054 | 5,594,364 | 27,593,247 | 20,597,943 | 867,771,402 |
| XVI. Heat, Light and | $11,786,102 \text { ! }$ | 6,079,708 | 2,252,383 | 1,984,013 | 1,615,34x | 250,267 | 23,967,814 |
| Grand Total | 399,137,690 | 284,647,914 | 90,318,437 | 67,578,377 | 29,208,588 | 20,848,210 | 891,739,216 |

(ii) Total, 1938-39 and 1940-41 to 1943-44. The following table shows the value of output in each State during the years 1940-41 to 1943-44 compared with 1938-39:-

FACTORIES : VALUE OF OUTPUT.

6. Value of Production.-(i) In Classes of Industry, 1943-44. The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production ".

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the "value of output". All these deductions with the exception of depreciation are included in the items "value of materials used " and " value of fuel used " as defined above. On account of the difficulty experienced in securing accurate figures for depreciation, it was subsequently agreed that the particulars obtained should be published but that no deduction should be made on this account for the present. The value of production as given in the following tables is obtained, therefore, by deducting "value of materials used "and "value of fuel used" from the "value of the output".

The figure thus calculated is, however, not the net value of production. The deduction for depreciation, particulars of which are shown in § 8, par. 4, was estimated at $£_{20,806,853}$ for 1943-44. Many miscellaneous expenses, such as insurance and advertising, have not been taken into account. Therefore, it must not be inferred that when wages and salaries are deducted from the value of production, the whole of the " surplus" is available for interest and profit.

The following table shows the value of production in 1943-44 in each State for the various classes of factories :-

FACTORIES : VALUE OF PRODUCTION, 1943-44.

(ii) Total and Averages, 1938-39 and 1940-41 to 1943-44. The value of production and the amount per person engaged and per head of population are shown in the following table for the last four years compared with $193^{8-39}$ :-

FACTORIES : VALUE OF PRODUCTION.


Per Person Engaged.


Per Head of Population.

7. Value of Output and Cost of Production.-As the total value of the output for Australia for 1943-44 was estimated at $£ 891,739,216$, there remained, after payment of $£_{498,923,060}$ for the value of the materials used, of $£ 216,873,819$ for salaries and wages, and of $\mathfrak{£} 26,580,669$ for power, fuel and light, the sum of $£\{49,361,668$ to provide for all other expenditure depreciation, interest and profits. The following table gives corresponding particulars for each State expressed absolutely and as percentages on the total value of the output for the year 1943-44:-

FACTORIES : VALUE OF OUTPUT AND COST OF PRODUCTION, 1943-44.


[^2]FACTORIES: VALUE OF OUTPUT AND COST OF PRODUCTION, 1943-44continued.


Percentage of Costs, etc., on Total Value.

(a) Includes the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.
(b) Includes lubricants and water.

## § 8. Value of Land, Buildings, Plant and Machinery.

1. General.-The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1943-44 :-

FACTORIES : VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY, 1943-44.


The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.
2. Value of Land and Buildings.-(i) Total for Australia, 1938-39 and 1940-41 to 1943-44. The following table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries for 1938-39 and 1940-4I to 1943-44.

FACTORIES : VALUE OF LAND AND BUILDINGS, AUSTRALIA.

(ii) In Classes of Industry in States, 1943-44. The following table gives particulare of the various classes of industry in each State.

FACTORIES : VALUE OF LAND AND BUILDINGS, 1943-44.

(iii) Totals in each State.--The following table shows the value of land and buildings in each State for the years 1938 -39 and 1940-41 to 1943-44 :-

FACTORIES: VALUE OF LAND •AND BUILDINGS.

| Year. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | £ |  | £ | £ | £ | £ | £ |
| 1938-39 | 57,353,625 | 42,026,245 | 12,299,089 | 8,710,700 | 6,813,653 | 3,717,102 | 130,920,4 14 |
| 1940-41 | 61,886,5:8 | 47,092,751 | 12,594,215 | It,480,505 | 6,802,488 | 4,23.7,169 | 144,023,656 |
| 1941-42 | 65,015,509 | 50,091,565 | $13.082,39.4$ | 16,665,829 | 7,093,250 | 4,384,553 | 156,333,100 |
| 1942-43 | 72,622,902 | 52,642,052 | 13,1.59,140 | I 7,473.537 | 6,770,121 | 4,926,195 | 167.593,947 |
| 1943-44 | 78,978,013 | 55,062,932 | 13,262,504 | 17,629,235 | 6,920,80. | 5.2n3,065 | 177.146 .605 |

Prior to 1929-30 the increase in the value of land and buildings was uninterrupted, rising from $£_{23}$ million in 1903 to $£_{11} 8$ million in $1929-30$, a growth of $£_{95}$ million in 27 years. During the three years ending 1932-33, however, there was a decline of $\mathfrak{E}_{12}$ million to $\mathrm{f}_{10} 5.8$ million, but since that year the value has risen to $\mathrm{E}_{177} 7$. m million in 1943-44.
3. Value of Plant and Machinery.--(i) Total for Australia, 1938-39 and 1940-41 to 1943-44. The following table shows for Australia the approximate value of plant and machinery used in factories in 1938-39 and each of the four years ended 1943-44:-

FACTORIES : VALUE OF PLANT AND MACHINERY, AUSTRALIA.

| Class of Industry. | 1938-39. | 1940-4I. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | £ | $\pm$ | $\pm$. | $\pm$ | $\pm$ |
| 1. Treatment of Nonmetalliterous Mine and Quarry Products | 7,028,382 | 6,553,067 | 6,175,931 | 5,624,798 | 5,089,274 |
| II. Bricks, Pottery, Glass, etc. | 3,144,586 | 2,978,633 | 2,975,457 | 2,580,261 | 2,246,369 |
| III. Chemicals, Dyes, Explosives. Paint, Oils and Grease | 6,754,248 | 10,872, 160 | 14,856,820 | 17,083,211 | 17,411,181 |
| IV. Industrial Metals, Machines, Implements and Conveyances | 33,037,801 | 40,711,422 | 45,296,023 | 52,931,958 | 56,9:8,202 |
| V. Precious Metals, Jewellery and Plate | 197,059 | 210,133 | 207,010 | 200,445 | 219,266 |
| VI. Textiles and Textile Goods | 6,657,416 | 7,714,174 | 7,844,986 | $7,915,814$ | 7,600,447 |
| VII. Skins and Leather . . | 973,181 | 1,095,683 | 1,143,210 | 1,160,754 | 1,224,852 |
| VIII. Clothing .- $\quad$ - | 2,557,388 | 2,677,323 | 2,769.587 | 2,855,529 | 3,225,678 |
| IX. Food, Drink and Tobacco | 32,100,675 | 33,022,696 | 32,572,699 | 31,660,416 | 31,904,522 |
| X. Woodworking and Basketware | 3,907,551 | 4.230,650 | 4,388,014 | 4,299,740 | 4,486,081 |
| XI. Furniture, Bedding, etc. | 727,857 | 712,922 | 652:707 | 602,222 | 545,199 |
| XII. Paper, Stationery, Printing, Bookbinding, etc. | 9,188.227 | . 10,840,730 | 10,566,786 | 10,074,510 | 9,531,486 |
| XIII. Rubber .. | 1,367.859 | 1,472,249 | 1.437,977 | 1,220,467 | I, 243,448 |
| XIV. Musical Instruments .. | 11,702 | 15,127 | 19,861 | 13.325 | 14,01 1 |
| XV. Miscellaneous Products | 758.273 | 886,256 | 1,222,140 | 1,384,164 | 1,547,403 |
| Total, Classes I. to XV. | 108,412,205 | 123,993,225 | 132,120,208 | $139.607,623$ | $143,207,419$ |
| XVI. Heat, Light and Power | 35,249,922 | 37.363,009 | 37,050.584 | 37,357,7c3 | 37,785,350 |
| Grand Total | 143,662,127 | 61.356.234 | 169,179,792 | 176,965,326 | 180,992,769 |

In 1929-30 the value of plant and machinery was $\mathfrak{X}_{127} 7.6$ million, declining to $£_{120.2}$ million during the next four years, but has since risen to the record figure of $£_{181}$. o million for $1943^{-44}$. The increase of $£_{4} .0$ million recorded during the latter year was due particularly to the development in the heavy industries included in Class IV. Increases also occurred in Chemicals, Dyes, Explosives, etc., industries in Class TII., and in industries included in Class IX.. Food. Drink and Tobacco, as a result of war-time demands on these industries.
(ii) Totals in each State. The following table shows the value of plant and machinery in each State during the years 1940-41 to 1943-44 compared with 1938-39. The chief increase during 1943-44 was recorded in Victoria :-

FACTORIES: VALUE OF PLANT AND MACHINERY.

| Year. | N.S.W. | Victoria. | Qland. | S. Aust. | W. Aust. | Tasmania. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | £ | £ | £ | £ | £ | £ | £ |
| 1938-39 | 62,692,956 | 38,626,743 | 18,095,415 ! | 9,749,679 | 8,095,064 | 6,402,270 | 143,662,127 |
| 1940-41 | 68,533,346 | 44:985,756 | 18,501,758 | 14,391,653 | 7,394,680 | 7,549,041 | 161,356,234 |
| 1941-42 | 70,611,613 | 48,065,80.5 | 18,771,893 | 16,808,122 | 7,309,560 | 7,612,799 | 169,179,792 |
| 1942-43 | 73,121,771 | 51,963,258 | 18,793,878! | 17,848,070 | 7,105,019 | 8,133,330 | 176,965,326 |
| 1943-44 | 73,803,954 | 55,457,719 | 17,886,417 | 18,415,477 | 7,364,909 | 3,064,293 | 180;992,769 |

(iii) Value according to Industry, r943-44. The following table shows the value of plant and machinery used in factories in each State during 1943-44, classified according to industry :-

FACTORIES : VALUE OF PIANT AND MACHINERY, 1943-44.

4. Depreciation of Land and Buildings and Plant and Machinery.-The following table shows the allowance made for the depreciation of land and buildings and plant and machinery used in connexion with the manufacturing industries in each State during the year 1943-44.

## ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, 1943-44.

| Class of Industry. | N.S.W. | Vic. | Q"and. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | £ | £ | £ | $\pm$ | £ | £ | $£$ |
| ducts | 500,972 | 117.838 | 38,687 | 14,870 | 9,742 | 12,965 | 695.074 |
| If. Bricks, Pottery, Glass, | 180,893 | 60,662 | 5.575 | 14,074 | 6,574 | 729 | 26S,507 |
| III. Chemicals, Dyes, Explosives, Paint, Oils and Grease | 538,925 | 1,016.104 | 28,830 | 949,494 | 61,285 | 7,471 | 2,602,109 |
| IV. Industrial Mletals, Machines, Implements and Conveyances | 5,226,739 | 1,894,692 | 300.9 .45 | 587,115 | 126,762 | 237,132 | 8,373,385 |
| v. Precions Metals: Jewellery and Plate | 6,048 | 9,799 | 332 | 2,186 | 287 | 91 | 18,743 |
| VI. Textiles and Textile | 407,045 | 610,685 | 10,303 | 98,734 | 12,458 | 67,635 | 1,206,860 |
| VII. Skins and Leather | 4077,472 | 42,183 | 16,590 | I, 185 | 9,551 | 3,943 | 120,924 |
| VIII. Clothing .. .- | 133,488 | 155,568 | 13,567 | 13,528 | 10,905 | 2,425 | 329,481 |
| IX. Food, Drink and Tobaceo | 876,541 | 793,690 | 691,627 | 190,175 | 128,844 | 58,973 | 2,739,850 |
| X. Woodworking and Basketware .. | 181,624 | 108,152 | 77,856 | 35,979 | 41,746 | 37,978 | $4^{83,335}$ |
| XI. Furniture, Bedding, <br> XII etc. $\ddot{\text { et }}$ er $\ddot{\square}$ | 51,680 | 12,426 | 8,962 | 5,305 | 3,011 | 1,211 | 82,595 |
| Printing, Bookbinding, etc. |  | 472,723 |  |  | 36,678 |  |  |
| XIII. Rubber | 1, 42,841 | 463,696 | 6,076 | 66,327 3,845 | 31,411 | 130,958 852 | 318,721 |
| XIV. Musical Instruments | 1,42I | 137 | 8 | 74 | 17 |  | 1,657 |
| $\begin{array}{cc}\text { XV. Miscellaneous } \\ \text { ducts } & \text { Pro- }\end{array}$ | 85,622 | 98,935 | 1,321 | 3,553 | 1,712 | 459 | 191,602 |
| Total, Classes I. to XV. | 8,785,245 | 5:557,290 | 1,26r,805 | 1,986,444 | 450,983 | 562,822 | 18,604,589 |
| XVI. Heat, Light and Power | 1,437,552 | 205,973 | 186,205 | 214,234 | 84,639 | 73,661 | 2,202,264 |
| Grand Total | 10,222,797 | 5,763,263 | 1,448,010 | 2,200,678 | 535,622 | 636,483 | 20,806,853 |

## § 9. Individual Industries.

1. General.-The preceding pages afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account in respect of each industry, particular industries are dealt with hereunder which are of special importance by reason of the employment which they provide for labour and capital or other features of special interest. Where there are only one or two establishments of a particular industry in a State, details of activities are not published, butare combined with some other factory group so that operations of individual concerns will not be disclosed.
2. Cement and Cement Goods.-(i) Details for each State, 1943-44. The manufactureof cement and cement goods is an important industry included in Class I. and detailsfor each State during 1943-44 are given in the following table :-

CEMENT AND CEMENT GOODS, 1943-44.

(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The next table gives. particulars for the last four years compared with 1938-39:-

CEMENT AND CEMENT GOODS : AUSTRALIA.

3. Chemicals, Drugs and Medicines.-(i) Details for each Stats, 1943-44. This is an important industry in Class III. and details for each State during 1943-44 are shown in the following table:-

CHEMICALS, DRUGS AND MEDICINES, 1943-44.

| Items. | N.S.W. | Victoria. | Qland. | S. Aust. | W.Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 196 | 87 | 13 | 12 | 13 | 5 | 326 |
| Number of persons engaged . | 4,774 | 3,435 | 238 | 896 | 275 | 44 | 9,662 |
| Value of land and buildings $\underset{\sim}{\text { ¢ }}$ | 2,041,277 | 995,101 | 57,328 | 441,115 | 73,523 | 22,660 | 3,631,004 |
| Value of plant and machinery ${ }_{\text {c }}$ | 2,146,185 | 1,220,014 | 26,364 | 702,588 | 147.963 | 9,774 | 4,352,888 |
| Wages paid $\quad$. | 1,308,023 | 1,036,290 | 63,544 | 245,294 | 68.930 | 8.742 | 2,730.823 |
| Value of fuel used $\quad \cdots \quad$ ¢ | 194,901 | 150,722 | 6,897 | 94,990 | 16,076 | 848 | 464,434 |
| Value of materials used $\quad \underset{\text { ¢ }}{ }$ | 4,338,550 | 3.227,154 | 203,740 | 615,210 | 169.786 | 21,24 1 | 8,575,681 |
| Total value of output | 9,033,965 | 6,033 293 | 367.968 | 1,260,823 | 340,121 | 43.515 | 17.079,685 |
| Value of production . . 気 | 4,500,514 | 2,655,417 | 157,331 | 550,623 | 154,259 | 21,426 | 8,039,570 |

(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. Details are given in the following table for each of the four years 1940-4I to 1943-44 compared with 1938-39. Considerable development occurred during the war years, much of the production being for war purposes.

CHEMICALS, DRUGS AND MEDICINES : AUSTRALIA.

| Number of factories |  |  | 238 | 259 | 278 | 298 | 326 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of persons engaged |  |  | 5,346 | 6,707 | 7,571 | 8,834 | 9,662 |
| Value of land and buildings |  | $\pm$ | 1,817,727 | 2,473,39 I | 2,740,283 | 3,156,126 | 3,631,004 |
| Value of plant and machinery | . | £ | 1,253,577 | 2,470,272 | 2,696,899 | 3,586,203 | 4,252,888 |
| Wages paid $\quad .$. |  | $\pm$ | 1,O11,906 | 1,408,919 | I,758,404 | 2,365,229 | 2,730,823 |
| Value of fuel used |  | E | 121,503 | 241,680 | 329.496 | 424,040 | 464,434 |
| Value of materials used |  | £ | 3,403,680 | 4,710,868 | 5,885,296 | 7;436,051 | 8,575,681 |
| Total value of output |  | £ | 7,351,745 | [10,026,247 | 12,408,449 | 14,978,800 | 17,079,685 |
| Value of production | . | £ | 3,826,562 | 1 5,073,699 | 6,193,657 | 7,118,709 | 8,039,570 |

4. White Lead, Paints and Varnish.-(i) Details for each State, 1943-44. The following table shows particulars of this industry for each State during 1943-44 :WHITE LEAD, PAINTS AND VARNISH FACTORIES, 1943-44.

(a) Particulars not available for publication.
(b) Includes Western Australia and Tasmania.
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The next table gives particulars for the years 1940-4I to 1943-44 compared with 1938-39:-

- WHITE LEAD, PAINTS AND VARNISH FACTORIES : AUSTRALIA.


5. Soap and Candle Factories.-(i) Details for each State, 1943-44. The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained. The following table gives particulars of soap and candle factories in each State for 1943-44 :-

SOAP AND CANDLE FACTORIES, 1943-44.

| Items. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W.A. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | - | 33 | 15 | 8 | 5 | 2 | 2 | 65 |
| Number of persons engaged |  | 1,670 | 683 | 327 | 172 | 67 | 19 | 2,938 |
| $V_{\text {alue }}$ of land and buildings | £ | 374,577 | 191,689 | 39,232 | 56,402 | (a) | (a) | (b) 686,091 |
| Value of plant and machinery | £ | 195,082 | 162,651 | 19,089 | 31,556 | (a) | (a) | (b) 422,467 |
| Wages paid | £ | 465.930 | 203,226 | 75:546 | 43,983 | (a) | (a) | (b) 805,919 |
| Value of fuel used | £ | 57,245 | 67.940 | 6,595 | 4,770 | (a) | (a) | (b) 139,713 |
| Value of materials used | £ | 1,591,239 | 739.904 | 244,653 | 113,081 | (a) | (a) | b 2,757,710 |
| Total value of output | £ | 3,135,574 | 1,442,045 | 427,000 | 181,380 | (a) | (a) | b 5,290,607 |
| Value of production | £ | 1,487,090 | 634,201 | 175,752 | 63,529 | (a) | (a) | $\left[\begin{array}{ll}b & 2,393,184\end{array}\right.$ |

(a) Particulars not available for publication.
(b) Includes Western Australia and Tasmanis.
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The next table gives similar particulars for the years 1940-4I to 1943-44 compared with 1938-39:-

SOAP AND CANDLE FACTORIES : AUSTRALIA.

| Items. |  |  | 1938-39. | 1940-41. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | $\ldots$ | 65 | 66 | 68 | 66 | 65 |
| Number of persons engaged |  | $\cdots$ | 2,620 | 2,914 | 3,074 | 3,084 | 2,93 ${ }^{\text {a }}$ |
| Value of land and buildings | . | $\pm$ | 665,546 | 731,098 | 696,2I8 | 691,066 | 685,091 |
| Value of plant and machinery | . | f | 576,732 | 490,993 | 498,970 | 461,918 | 422,467 |
| Wages paid .-. |  | £ | 501,174 | 605,448 | 72,4,737 | 802,011 | 805,919 |
| Value of fuel used |  | ${ }^{\text {f }}$ | 76,283 | 96,283 | 124,6x5 | 147,061 | 139,713 |
| Value of materials ussed |  | ${ }_{\text {f }}$ | 1,567,999 | 1,973,953 | 2,602,943 | 2,979,650 | 2,757,710 |
| Total value of output | . | E | 3,529,723 | 4,407,637 | 5,487,898 | 6,116,396 | 5,290,607 |
| Value of production | . | $\pm$ | 1,885,44 | 2,337,401 | 2,760,340 | 2,989,685 | 2,393,184 |

(iii) Raw Material Used and Production, 1938-39 and 1940-41 to 1943-44. The following statement shows the quantities of certain raw materials used and the production in soap and candle factories in Australia for the years 1940-41 to 1943-44 compared with 1938-39 :-

## SOAP AND CANDLE FACTORIES : RAW MATERIALS USED AND PRODUCTION,

 AUSTRALIA.

The output for the year 1943-44 comprised the following quantities of soap :household, $5^{61,512}$ cwt.; toilet, 256,982 cwt. ; sand, 84, IOI cwt.; soft, 20,014 cwt.; and woolscouring, $44,373 \mathrm{cwt}$. This excludes $43,118 \mathrm{cwt}$. of soap made in establishments not classified as Soap and Candle Factories.
6. Chemical Fertilizers.-(i) Details for each State, 1943-44. The following table gives particulars of the factories engaged in the manufacture of chemical fertilizers in each State during 1943-44. Details of the consumption, imports and exports of fertilizers will be found in Chaptẹ XX. "Agricultural Production ".

CHEMICAL FERTILIZERS, 1943-44.

| Items. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 6 | 71 | 6 | 6 | 5 | 6 | 36 |
| Nimmber of persons engaged | 215 | 721 | 71 | 441 | 339 | 31 | 1,818 |
| Value of land and buildings $\mathfrak{E}$ | 112,796 | 463,850 | 69,93I | 251,516 | 514,929 | 41,029 | 1,454,051 |
| Value of bant and machinery $\mathrm{f}_{\text {c }}$ | 98,491 | 676,089 | 80,451 | 642,850 | 727,433 | 19,187 | 2,244,501 |
| Wages paid $\quad .$. | 75,244 | 256,351 | 23,051 | 149.205 | 117,061 | 1.1,203 | 632,115 |
| Value of fuel used f | 9,823 | 33,251 | 1,075 | 25,576 | 16,120 | 1,031 | 86,876 |
| Value of materials used ${ }^{\text {E }}$ | 552,008 | 5,385,739 | 178.194 | 594,317 | 812,696 | 140,222 | 3,659,176 |
| Total value of output | 692,947 | 1,891,433 | 225,813 | 815,820 | 1,087,721 | 153,730 | 4,867,464 |
| Value of, production $£$ | 131,116 | 476,443 | 46,544 | 195,927 | 258,905 | 12,477 | 1,121,412 |

(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The development of this industry since 1938-39 is set out hereunder :-

CHEMICAL FERTILIZERS : AUSTRALIA.

| Items. |  |  | 1938-39. | 1940-41. | 1941-42. | 1942-43. | 1943-44- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | - | 36 | 34 | 35 | 34 | 36 |
| Number of persons engaged |  | $\cdots$ | 2,540 | 2,312 | 2,136 | 1,667 | 1,818 |
| Value of land and buildings |  | $\pm$ | 1,449,157 | 1,513,639 | 1,538,321 | 1,464,411 | 1,454,051 |
| Value of plant and machinery |  | $\pm$ | 2,352,819 | 2,352,793 | 2,295,124 | 2,176,426 | 2,244,561 |
| Wases paid . |  | $\pm$ | 601,477 | 615.085 | 639,791 | 539,955 | 632,115 |
| Yalue of fuel used |  | $\underset{\text { f }}{ }$ | 113,749 | 107,234 | 11 $_{\text {1 }}$, 868 | 75,104 | 86,876 |
| Value of materialy used |  | £ | 3,231.053 | 3,727,369 | 3,821,267. | 2,945.694 | 3.659,176 |
| Total value of output |  | $\pm$ | 4,944,800 | 5,327,996 | 5,219,576 | 3.923 .806 | 4,867,464 |
| Value of production |  | £ | 1,599,993 | I,493,393 | I, 283,44 | 903,008 | I, 121,412 |

7. Smelting, Converting, Refining and Rolling of Iron and Steel.-(i) Details for each State, 1943-44. The extension of the classification referred to in § 1 par. 2 p. 908 has made possible the separate publication of details for the group of industries comprised herein. This grouping includes ironworks, foundries, the making of iron safes and doors, steel castings, iron bedsteads, sash weights, steel window frames and sashes, nuts and bolts, springs, horse-shoes, screws, lifts, tools, brickmakers' implements and oxy-acetylene welding. Particulars for the year 1943-44 are as follows :-

## Smelting, converting, refining and rolling of iron and STEEL, 1943-44.

 -
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The rapid development of this industry during the war years is illustrated in the following table :-

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL: AUSTRALIA.

| Items. |  | 1938-39. | 1940-41. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 363 | 371 | 387 | 407 | 440 |
| Number of persons engaged |  | 19,352 | 25,800 | 31,437 | 32,607 | 30,623 |
| Value of land and huildings | $\ddagger$ | 3,532:471 | 4,246,864 | 4,595,620 | 4,578,206 | 4,702,806 |
| Value of plant and machinery | f | 8,611,122 | 10,223,248 | 10.556,961 | 9,942,087 | 9,170,371 |
| Wages paid | $\ddagger$ | 4,740,444 | 7,005,014 | 9,749,026 | 10,968,634 | 10,408,673 |
| Value of fuel used | $\pm$ | 2,318,248 | 3,082,167 | 3,744.235 | 3,910,628 | 3.731,000 |
| Value of materials used | $\pm$ | 16,502,532 | 24,816,151 | 32,921,370 | 36,697,223 | 35,662,743 |
| Total value of output . | 至 | 29,075,039 | 42,604,932 | 53,062,902 | 58,582,945 | 56,993,186 |
| Value of production | $\pm$ | 10,254,259 | $14,706,614$ | 16,397,297 | 17,975,094 | 17,599.443 |
| Production of-- |  |  |  |  |  |  |
| Pig Iron | tons | 1,104,605 | 1,475,707 | 1,557,641 | 1,399,306 | 1,305,357 |
| Ingot steel . | tons | 1,171,787 | 1,647:108 | 1,699,793 | 1,632,825 | I,527,564 |

8. Engineering Works.-(i) Details for euch State, 1943-44. Formerly, it was impossible to show separate details for the engineering industry owing to the different classifications among the States, but since 1926-27 substantial uniformity has been attained.

The classification of establishments included in the Industrial Metal Group still presents some difficulty. This arises from the fact that some establishments are engaged in two or more distinct types of industrial activity. In such cases factory proprietors are asked to furnish separate returns for each activity, but this is not always practicable and consequently there is no alternative but to classify such factories according to their
predominant activity. This difficulty is most acute in engineering works, but thefollowing figures may be accepted as reasonably representative of the engineering industry, excluding the marine and electrical branches:-

ENGINEERING WORKS,(a) 1943-44.

| Items. | N.S.W. | Victorja. | Q'land. <br> (b) | S. Aust. | W. Aust. | Tas. | Austrajia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 689 | 650 | 116 | 117 | $133 '$ | 37 | 1,742 |
| Number of persons engaged | 24,822 | 24,774 | 4:043 | 4,639 | 2,964 | 663 | 61,905 |
| Value of land and buildingef | 3,530,901 | 3,663,140 | 440,865 | 383,105 | 417,3591 | 105,379 | 8,540,749 |
| Value of plant and machi- nery.. | 3,065,000 | 4,778,920 | 394.251 | 561,908 | 342,564 | 113,312 | 9,255,964 |
| Wages paid . $\quad \pm$ | 8,172,974 | 3,072,56: | 1,173,885 | 1,276,674 | 965,138 | 203,625 | $19,864,857$ |
| Value of fuel used $£$ | 334,324 | 364,682 | 6I,518 | 160,385 | 55,440 | 9,521 | 885,870 |
| Value of materials used $\boldsymbol{f}$ | 9,856,213 | 10,093,176 | 1,112,513 | 1, 162,818 | 806,431 | 107,865 | 23,139,016 |
| Total value of putput | 22,625,723 | 22,881,20c | 2,911,536 | 2,945,283 | 2,167,775 | 389,469 | 53,920,986 |
| Value of production 5 | 12,435,186 | 12,423,342 | 1,737,505 | 1,722,080 | 1,305,904 | 272,083 | 29,896,100 |

(a) Excludes marine and electrical iron and steel.
(b) Includes smelting, converting, refining and rolling of

In addition to engineering works which supply ordinary requirements, many establishments manufacture special classes of machinery and implements. The manufacture of mining, smelting and textile machinery and apparatus forms an important section of this industry.
(ii) Total for Australia, 1938-39 and 1940-4I to 1943-44. The heavy demands. brought about by the war, aggravated by difficulties in obtaining some imports during the war years, resulted in a remarkable development in this industry, as shown in the table set out hereunder:-

## ENGINEERING WORKS: AUSTRALIA.

| Items. | - |  | 1938-39. | 1940-4I. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | . | 1,099 | 1,210 | 1,372 | 1,563 | 1,742 |
| Number of persons engaged |  |  | 26,222 | 34,690 | 47,818 | 59,708 | 61.905 |
| Value of land and buildings |  | £ | 3,894,051 | 4,760,956 | 6,084,788 | 7,457,040 | 8,540,749 |
| Value of plant and machinerv |  | 卦 | 3,646,494 | 4,468,022 | 5,492,563 | 7,202,359 | 9,255,964 |
| Wares paid . . |  | $\ddagger$ | 5,741,985 | 8,637,631 | 14,243.584 | 19,207,546 | 19,864,857 |
| Value of fuel used |  | 8 | 291,409 | 417,304 | 624,314 | 871,157 | - 885,870 |
| Value of materials used |  | $\stackrel{5}{2}$ | 7,339,56.4 | 11,235, 170 | 15,831,976 | 20,773,100 | 23.139,016 |
| Total value of output |  | 1 | 16,879,645 | 24,009,683 | 38,541,353 | 50,145,454 | 53,920,986 |
| V aine of production |  | $\pm$ | 9,248,672 | 13,257,209 | 22,085,063 | -8,501,197 | 29.896,100 |

9. Extracting and Refining of Non-ferrous Metals and Alloys.-(i) Details for each State, 1943-44. The following table gives particulars of metal extraction and ore reduction works, other than those connected with iron and steel. The returns do not include particulars of plants used in mines :-

EXTRACTING AND REFINING OF NON-FERROUS METALS AND ALLOYS, 1943-44.

(a) In Western Australia the majority of the plants are worked on the mines; and are therefore not included. (b) Particulars not available for publication. (c) Includes particulars for Statesmarked ( $b$ ).
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The development of this industry since $193^{8-39}$ is set out hereander :-

## EXTRACTING AND REFINING OF NON-FERROUS METALS AND ALLOYS: AUSTRALIA.


10. Electrical Installations, Cables and Apparatus.-(i) Details for each State, 1943-44. The following table shows particulars of this industry for each State during 1943-44:-

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS, 1943-44.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The increased output of electrical energy in Australia within recent years, referred to in par. 39 below, caused a corresponding demand for electrical equipment. As imports declined heavily during the depression years the local industry was called upon to furnish the bulk of the new meeds and consequently the development in the manufacture of electrical goods in Australia has been considerable.

ElECTRICAL INSTALLATIONS, CABLES AND APPARATUS : AUSTRALIA.

| Items. |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |

I I. Railway and Tramway Workshops.-(i) Details for each State, 1943-44. The sailway and tramway workshops which form an important item in Class IV. are chiefly :State-owned institutions and their development is a reflection of the growth of the railway
and tramway systems of Australia. The following table includes, in addition, municipal establishments for manufacturing and repairing rolling stock. Private institutions numbering 9 in 1943-44 have been excluded :-

TRAMCARS, RAILWAY ROLLING STOCK AND CARRIAGES, ETC.(a), 1943.44.

| Items. |  | Victoria. I | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 36 | 25 | 11 | 15 | 22 | 7 | 116 |
| Number of persons engaged.. | 14,119 | 8,734 | 5,198 | 7,288 | 2,780 | 889 | 39,058 |
| Value of land and buildings $\boldsymbol{x}$ | 3,181,338 | 1,495,896 | 563,723 | 1,050,943 | 515,617 | 94,747 | 6,902,264 |
| Value of plant and machinery | 2,692,238 | 1,166,077 | 443,848 | 915,714 | 436,952 | 52,979 | 5,707,808 |
| Wages paid . ¢ | 4,872,735 | 2,869,230 | 2,093,020 | 2,362,096 | 874,085 | 336,765 | 13,407,931 |
| Value of fuel used. . | 152,291 | 74,105 | 48,615 | 113,166 | 46,796 | 19,161 | +454,130 |
| Value of materials used $\quad \underset{\mathbf{s}}{ }$ | 3,419,000 | 1,624,842 | 1,305,467 | 1,669,450 | 520,167 | 51,277 | 8,590,203 |
| Total value of output $\quad \underset{\text { ¢ }}{ }$ | 9,287,869 | [5,008,368 | 3,314,846 | 4,560,185 | 1,828,366 | 447,923 | 24,947,557 |
| Value of production $\mathcal{E}$ | 5,716,578 | 3,309,421 | 2,460,768 | 2,777,569 | 1,261,403 | 377,485 | 15,903,224 |

(a) Government and Municipal only.

A railway workshop in the Northern Territory is chiefly engaged in making repairs to rolling stock, etc., no new goods being manufactured. Particulars in regard to this establishment are not included in any of the tables in this chapter.
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The following table shows the development of railway and tramway workshops in Australia since 1938-39:-

TRAMCARS, RAILWAY ROLLING STOCK AND CARRIAGES, ETC. (a) : AUSTRALIA.

| Items. |  |  | 1938-39. | 1940-41. | 194I-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  |  | 117 | 115 | II4 | 114 | 116 |
| Number of persons engaged |  | $\cdots$ | 27,310 | 30,178 | 35,020 | 38,721 | 39,058 |
| Value of land and buildings | . | $\pm$ | 6,736,924 | 6,619,976 | 6,682,491 | 6,765,186 | 6,902,264 |
| Value oi plant and machinery |  |  | 5,390,179 | 5,476,44,6 | 5,519,669 | $5,684,696$ | 5.707,808 |
| Wages paid .- .. |  | $\pm$ | 6,720,990 | 8,014,441 | 10,936,517 | 12,943,437 | 13,407,93 1 |
| Value of fuel used |  | $\pm$ | 226,108 | 281,726 | 367,45I | 451,527 | 454,130 |
| Value of materials used |  | £ | 4,976,353 | 5,116,944 | 6,774,775 | 7,731,445 | 8,590,203 |
| Total value of output |  | $\pm$ | 13,223,114 | 14,867,940 | ,20,086,070 | 23,490,587 | 24,947,557 |
| Value of production |  | $\pm$ | \| 8,020,653 | 9,469,270 | 12,943,844 | 15,307,615 | 15,903,224 |

(a) Government and Municipal only.
12. Motor Vehicles and Cycles.-The industries catering for the motor trade areincluded in Class IV. "Industrial Metals, Machines, Implements and Conveyances" Returns in regard to assembling and repairing are shown hereunder for 1943-44 :-

## ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1943-44.



Particulars in regard to motor body building for 1943-44 are as follows :-
MOTOR BODY BUILDING, 1943-44.

(a) Includes horse-drawn vehicles.

The output of motor bodies together with the number imported into Australia for 1931-32, 1938-39 and the years 1940-41 to 1943-44 are shown in the next table :-

MOTOR BODIES : PRODUCTION AND IMPORTS, AUSTRALIA.

| Ttems. |  | 193I-32. | 1938-39. | 1940-41. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Motor Budies- |  |  |  |  |  |  |  |
| Number made | No. | 6,323 | 79,436 | 49.130 | 62,731 | 44,286 | 29,309 |
| Value $\quad$. | £ | 450,510 | 6,421,142 | 3,337,346 | 4,32 1,988 | 4,652,771 | 2,582,912 |
| Number imported | No. |  | 532 | 50 | $16$ | -270 | $694$ |
| Value .. | £ | 7,360 | 56,64 | 4,057 | 1,805 | 57,010 | 52,834 |

13. Agricultural Implement Works.-(i) General. The manufacture of agricultural implements is of partioular interest, owing to the extensive agricultural activities and to the fact that it was one of the first to which it was sought to apply the so-called "New Protection ". The articles manufactured include a wide range of agricultural implements for tillage, seeding and planting and the harvesting of crops. Other farm machinery made includes oil engines, windmills, chaff-cutters and machinery used in the dairying industry.
(ii) Details for States, 1943-44. The following table gives details respecting agricultural implement works in each State for 1943-44 :-

AGRICULTURAL IMPLEMENT WORKS, 1943-44.

(iii) Total for Australia, 1938-39 and 1940-41 to 1943-44. Following the mobilization of man-power in Australia on Japan's entry into the war in 1941, the area under crops declined by about 20 per cent. and the output of agricultural implements was materially reduced. Later, however, in order to satisfy the need for increased output of food for Services, civilians and exports, it was necessary to divert agricultural implement establishments from production of war material to their normal production
of agricultural implements with the result that a rise in the production of the latter commenced in 1942-43 and continued during 1943-44. Details for each of the last four years compared with 1938-39 are as follows :-

AGRICULTURAL IMPLEMENT WORKS : AUSTRALIA.

14. Wireless Apparatus.-The introduction of wireless broadcasting in 1923 gave rise to a new industry in Australia. Early statistical details of the industry are not available as they were grouped together with other electrical apparatus. In 1930-31, a new classification of factories was adopted and "Wireless Apparatus" was shown as a separate industry. The industry is confined, almost entirely, to New South Wales and Victoria. The number of broadcast listeners' licences increased from 331,128 in 1930-31 to $1,454.302$ in 1943-44, and this increase reflects the advancement of the industry during that period. During the war years considerable expansion took place in the industry to meet the requirements of the fighting services.

WIRELESS APPARATUS : AUSTRALIA.

| Items. |  | 1938-39. | 3940-41. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 72 | 77 | $\dot{7}_{4}$ | 73 | 85 |
| Number of persons engaged | - | 4,828 | 6,165 | 8,429 | 9,554 | 11,020 |
| Falue of land and buildings | £ | 557,953 | 573,171 | 661,706 | 754,977 | 895,642 |
| Value of plant and machinery | £ | 305,468 | 335,735 | 415,736 | 544,023 | 613,088 |
| Wages paid . . . - | ¢ | 754,302 | 1,121,252 | 1,977,294 | 2,429,430 | 2,959,291 |
| Value of fuel used | $\cdots \quad \leq$ | 23,525 | 133,473 | 44,623 | 58,517 | 68,553 |
| Value of materials naed | $\cdots$ | 1,355,683 | 1,907,840 | 2,680,753 | 2,944,653 | 3,379,511 |
| Total yalue of output | $\cdots$ ¢ | 2,502,338 | -3,566,280 | 5,323,681 | 6,180,276 | 7,190;028 |
| Value of production | £ | 1,123,130 | 1,624,967 | 2,598,305 | 3,177,106 | 3,74 1,964 |

The number of domestic receiving sets assembled in $1943-44$ was 10,615 and the number of domestic chassis made was 17,621 compared with 163,821 and 123,655 respectively in 1938-39.
15. Cotton.-(i) General. Cotton has been grown in Australia since 1860, but never on a very large scale. The average annual quantity of unginned cotton produced during the five years ended $1938-39$ was 18 million lb . and slightly under 14 million lb. in the next five years. Arising out of the development in the local manufacture of cotton materials and the further expansion following the outbreak of war in 1939, plans were completed for an extension of the area devoted to the cultivation of this crop, but since the commencement of the Pacific War there has been a definite downward trend. The growing of cotton is restricted to Queensland and is referred to in some detail in Chapter XX. "Agricultural Production".
(ii) Ginning. The ginning and marketing of cotton is controlled by the Queensland Cotton Board. The Board operates ginneries and processes by-products. The production of raw cotton is insufficient for local factory requirements and is supplemented by imports from overseas, chiefly from India and the United States of America.
(iii) Spinning and Weaving. The recent expansion in the spinning and weaving section of the cotton industry marks an important event in its development. New factories have been established and Australia is now producing an extensive range of
cotton goods, including duck and canvas from cotton or flax, denims, drill, etc., tyre cord and tyre cord fabric. The number of establishments engaged in cotton spinning and weaving in Australia is given in the following table for the four years ended 1943-44 in comparison with 1938-39.

## COTTON SPINNING AND WEAVING: AUSTRALIA.

| Items. |  | 1938-39. | $1940-41$. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factorits |  | 33 | 49 | 65 | 69 | 70 |
| Number of persons engaged |  | 3,589 | 6,184 | 7,245 | 7.868 | 7,908 |
| Value of land and luildings | $\pm$ | 703.790 | :,081,586 | 1,311,94 1 | 1.396, 30.4 | 1,427,401 |
| Value of plant and machinery | $\pm$ | 735,529 | 1,733:441 | 1,981,101 | 2,177,698 | 2,080,785 |
| Wages paid | $\leq$ | 493,109 | 1, 032,809 | 1,391,800 | 1,655,233 | 1,768,268 |
| Value of fuel used | $\pm$ | 50,011 | 83,828 | 122,765 | 133,138 | 142,534 |
| Value of materials used | $\pm$ | 1,357,280 | 3,218,359 | 3,730,144 | 4,547,556 | 5,375,438 |
| Total value of output | $\pm$ | 2,385,990 | 5,303,013 | 6,401,011 | 7,691,120 | 8,930,3-4 |
| Value of production | $\pm$ | 978,699 | 1,992,156 | 2,548,102 | 3:010.426 | 3,412,352 |

16. Woollen and Tweed Mills.-(i) Details for each State, 1943-44. The manufacture of woollens and tweeds was established at an early period in Australian history and was under Government control, the first record in New South Wales dating back to 18or, when a few blankets were made by convicts, while manufacture in Victoria dates from 1867. The following table gives particulars for 1943-44:-

## W00LLEN AND TWEED (INCLUDING W00LSCOURING) MILLS, 1943-44.

| Items. | $\begin{gathered} \text { N.S.W. } \\ (a) \\ \hline \end{gathered}$ | Victoria. | Q'land. (a) | S. Aust. <br> (b) | W.A. <br> (a) | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  |  |  |  | 1 | 4 | 16 |
| Number of persons engaged | 8,165 | 11.8341 | 818 | 1,478 | 163 | 2,400 | 24,858 |
| Yalue of land and buildings $£$ | 925,017 | 1,517,095: | (r) | 138,778 | (c) | 219.251 | d 2,867,297 |
| Value of plant and machinery $\dot{ \pm}$ | 1,072,008 | 1,468,274 | (c) | 186,290 | (c) | ${ }^{139,857}$ | d 2,995,835 |
| Wages paid . . . . | 1,876,702 | 2,912.626, | (c) $\cdot$ | 404.314 | (r) | 536,390 | d 5,896,320 |
| Value of fuel used | 168,179 | 36. ${ }^{\text {3 }} 873$ | (c) | 66,911 | (c) | 40.647 | d 658,800 |
| Value of materials used $£$ | 4,763,430 | 7,646,800 | (c) | 1,328.583 | (c) | 1,393,580 | d15,455,106 |
| Total value of output. . £ |  | 12,534:481 | (c) | 1,977.594 | (c) | 2,443,470 | d25.433.289 |
| Value of production .. 妾 | 2,960,100 | 4,526,808 | (c) | 582,100 | (c) | 1,009.243 | d $9,319,3: 3$ |

(a) Excludes Woolscouring.
(b) Includes Fellmongery.
(c) Particulars not available for publication.
(d) Includes Queensland and Western Australia.
(ii) Total for Australia, 1938-39 and I940-4I to 1943-44. The extent of the woollen and tweed milling industry in Australia in the years 1940-41 to 1943-44 compared with $193^{8-39}$ is shown in the following table. The production consists chiefly of tweed cloths, flannels, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. Detailed particulars for the several States are not available for publication.
WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING) : AUSTRALIA. (a)

| Items. |  |  |  |
| :---: | :--- | :--- | ---: | ---: | ---: | ---: | ---: |

(a) Excludes Woolscouring in New South Wales, Queensland and Western Australin but includes Fellmongery in South Australia.
17. Hosiery and Other Knitted Goods.-(i) Details for each State, 1943-44. In addition to the woollen and tweed factories, there were 341 hosiery and knitting mills operating in Australia during 1943-44. The total number of persons engaged in these establishments was 16,017 of whom 12,547 were females. Details for each State are shown in the following table:-

HOSIERY AND OTHER KNITTED G00DS, 1943-44.

(a) Particulars not a vailable for publication.
(b) Includes Queensland and South Australia.
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. Comparative statistics for 1938-39 and the years 1940-41 to 1943-44 are shown in the following table :-

HOSIERY AND OTHER KNITTED GOODS : AUSTRALIA.

| Jtems. |  |  | 1938-39. | 1940-41. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  |  | 313 | 328 | 328 | 326 | 341 |
| Number of persons engazed |  | . | 18,159 | 19,408 | 17,711 | 1 15,654 | 16,017 |
| Value of land and buildings |  | 2 | 1,962 336 | 2,007,062 | 2,066,723 | 2,172,979 | 2,243,181 |
| Value of plant and machinery |  | £ | 1,930,564 | 1,629,917 | 1,576,301 | 1,455,583 | 1,367,754 |
| Wages paid |  | $\pm$ | 2,331,536 | 2,889,267 | 3,049,560 | 2,930,842 | 3,187,545 |
| Value of fuel used |  | £ | 133,154 | 151,146 | 151,716 | 164,534 | 168,218 |
| Value of materials used |  | $\Sigma$ | 4,284,216 | 5,986,405 | 7,931,884 | 7,599,088 | 7,873,375 |
| Total value of output |  | £ | 8,226,468 | [2,188,378 | 13,838,471 | 13,095,997 | 13.771 .177 |
| Value of production |  | £ | 3,809,098 | 5,050,827 | 5,764,871 | 5,332,375 | 5,729,584 |

(iii) Raw Materials used and Production, 1943-44. The main raw materials consumed in establishments manufacturing hosiery and other knitted goods during 1943-44 consisted of woollen yarn, $12,319,678 \mathrm{lb}$; cotton yarn, $7,417,510 \mathrm{lb}$; silk yarn, 2,250 lb . ; and artificial silk yarn, $5,340,737 \mathrm{lb}$. Production comprised $35,424,084$ garments, valued at $£ 7,208,768 ; 1,323,808$ dozen pairs of stockings, valued at $£ 2,150,567$; and $\mathbf{2 , 1 0 4 , 7 4 6}$ dozen pairs of socks, valued at $\boldsymbol{£ 2 , 1 9 5 , 9 5 6}$.
18. Tanning, Currying and Leather Dressing.-(i) Details for each State, 1943-44. In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser sorts of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

TANNING, CURRYING AND LEATHER DRESSING, 1943-44.

(a) Putticulars not available for publication.
(b) Includes South Australia and Tasmania.
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The development of the tanning industry during the years stated is shown in the following table :-

TANNING, CURRYING AND LEATHER DRESSING: AUSTRALIA.

| Items. |  |  | 1938-39. | 1940-41. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factorles |  | . | 132 | 137 | 139 | 138 | 142 |
| Number of persons engaged | . | $\cdots$ | 4,375 | 4,473 | 4,844 | 4,647 | 4,631 |
| Value of land and buildings | . | $\pm$ | 813,713 | 865,759 | 894,260 | 906,896 | 919,016 |
| Value of plant and machinery | . | £ | 523,538 | 544,890 | 548,288 | 531,661 | 543,796 |
| Wages paid | . | £ | 919,781 | 1,030,495 | 1,347,934 | 1,453,026 | I,495,549 |
| Value of fuel used |  | $\pm$ | 87,670 | 100,944 | 116,914 | 124,261 | 135,568 |
| Value of materials used |  | £ | 2,983 041 | 4,043,285 | 4,969,830 | 5,001,880 | 5,007,149 |
| Total value of output |  | $\underline{5}$ | 4,592,642 | 5,942,320 | 7,405,634 | 7,461,144 | 7,569,327 |
| Value of production |  | £ | 1,521,931 | 1,798,091 | 2,318,890 | 2,335,003 | 2,426,610 |

(iii) Raw Material Used and Production, 1943-44. The quantities of raw material used and leather produced in tanneries in each State are shown in the following table. Some leather is also produced in works other than tanneries, but this is excluded :-

TANNERIES : RAW MATERIAL USED AND PRODUCTION, 1943-44.

| Particulars. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australis. <br> (b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hides. . . . No. | 842,934 | 1,000,017 | 261,198 | (a) | 87,465 | (a) | 2,254,189 |
| Sking- |  |  |  |  |  |  |  |
| Calf | 623,064 | 557,206 | 133,702 | 1,600 | 572 |  | 1,316,144 |
| Goat | 722,518 | 96,240 | (a) | (a) |  |  | 819,079 |
| Sheep | 1,626,478 | 827,856 | (a) |  |  | (a) | 2,757,596 |
| Marsupial | 18,499 | 47,676 | 35,305 | 2,540 | 1,4+3 |  | 105,463 |
| Pelts treated | 2,044,266 | 383,617 |  |  | 1,000 |  | 2,428,883 |
| Bark used- |  |  |  |  |  |  |  |
| Wattle .. tons | 4,185 | 4,517 | 1,427 | 650 | (a) | (a) | 11,000 |
| Other | 498 | 1,511 | (a) |  | (a) |  | 2,423 |
| Tanning extract used lb. | 12,720,484 | 7,221,745 | 2,897,758 | (a) | 2,033,880 | (a) | 25,029,507 |
| Leather made- |  |  |  |  |  |  |  |
| Sole and Belting ", | 12,780,088 | 14,217.619 | 5,991,801 | (a) | 2,106,168 | (a) | 36,062,471 |
| Harness .. | 1,013,64 I | 723,233 | 559,880 | 91,389 | 45,122 | . | 2,433,265 |
| Upholstery .i sq. ft. | (a) | (a) |  | (a) |  | . | 5,482,651 |
| Dressed and Upper from Hides- |  |  |  |  |  |  |  |
| Sold by Measure- |  |  |  |  |  |  |  |
| ment- |  |  |  |  |  |  |  |
| Patent sq, ft . | 274,019 | 1,309,891 |  |  |  |  | 1,583,910 |
| Sold All Other We." | 10,166,389 | 16,285,373 | (a) | 1,175,604 | 658,663 | (a) | 30,338,589 |
| Sold by Weight- |  |  |  |  |  |  |  |
| Waxed Kip lb. | (a) | 50,380 | (a) | 29,423 | 2,388 | (a) | 111,325 |
| All Other .. ${ }^{\text {a }}$ | 838,981 | 856,956 | (a) | 37,790 | (a) |  | 2,921,905 |
| Dressed from skins- |  |  |  |  |  |  |  |
| Calf $\quad . \quad$ sq.ft. | 6,336,781 | 3,841,579 | 1,125,45 3 | $\ldots$ | 2,434 |  | 11,306,252 |
| Goat | 3,298,441 | (a) | (a) |  |  |  | 3,735,343 |
| Sheep . ${ }^{\text {- }}$ | 12,190,510 | (a) | (a) |  |  |  | 15,526,268 |
| Marsupial. . , | 173,096 | 248,844 | 166,041 | 20,000 | 6,901 | . | 514,882 |

(a) Not available for publication.
(b) Inchudes particulars for States marked (a).
19. Tailoring and Ready-made Clothing Factories.-(i) Details for each State, 1943-44. The importance of this industry in each State is shown in the following table :-

TAILORING AND READY-MADE CLOTHING FACTORIES, 1943-44.

| Items. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 520 | 348 | 106 | 100 | 66 | 20 | 1,160 |
| Number of persons engaged | 12,621 | 7,581 | 2,672 | 1,720 | 854 | 424 | 25,872 |
| Value of land and buildings $£$ | 1,847,410 | 934, ${ }^{1} 14$ | 240,704 | 234,985 | 131,422 | 64,744 | 3,453,279 |
| Value of plant and machinery $£$ | 281,071 | 198,222 | 40,748 | 24,475 | 13,964 | 9,320 | 567,800 |
| Wages paid $\quad \cdots$ | 2,249,674 | 1,429,015 | 415,026 | 254,928 | 129,125 | 65,259 | 4,543,027 |
| Value of fuel used ... | 44,817 | 37,495 | 7,418 | 5.738 | 2,565 | 882 | 98.915 |
| Value of materials used $f$ | 4,329,794 | 3,323,293 | 690,604 | 233,892 | 199,557 | 65,924 | 8, $\mathbf{4}_{43,064}$ |
| Total value of output | 7,986,246 | 5,613,438 | 1,367,746 | 640,321 | 420,219 | 161,557 | 15,189,527 |
| Value of production . . £ | 3,611,635 | 2,252,650, | 669,724 | 400,691 | 218,097 | 94,75 | 7,247,548 |

4193.-31
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. Details for the four years I940-41 to 1943-44 compared with 1938-39 are as follows :-

TAILORING AND READY-MADE CLOTHING FACTORIES: AUSTRALIA.

| Items. |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |

20. Dressmaking and Millinery Establishments.-(i) Details for each State, 1943-44. Particulars of dressmaking and millinery establishments are given separately in the following tables :-

DRESSMAKING ESTABLISHMENTS, 1943-44.

| Items. |  | N.S.W. | Victoria, | Q'land. | S. Aust. | W. Aust. ${ }^{\text {. }}$ | Tar. <br> (a) | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 125 | 432 | 40 | 47 | 35 | 9 | 688 |
| Number of persons engaged |  | 1,451 | 7,658 | 748 | 843 | 751 | 93 | I 1,544 |
| Falue of land and buildings | £ | 201,026 | 1,300,807 | 70,327 | 73,536 | 74,207 | 9,768 | 1,729,671 |
| Value of plant and machinery | £ | 20,33 1 | 143,491 | 12,173 | I1,320 | 11,211 | 1,535 | 200,061 |
| Wages paid | £. | 189,895 | 1,267,28I | 101,185 | 108,734 | 85,071 | 9,025 | 1,761,187 |
| Value of fuel used | £ | 2,457 | 22,243 | 1,483 | 2,137 | 1,333 | 205 | 29,888 |
| Value of materials used | £ | 221,115 | 2,888,755 | 101,353 | 121,506 | 165,612 | 7,105 | 3,505,446 |
| Total value of output | £ | 524,639 | 5,105,782 | 259,320 | 302,834 | 319,971 | 22,520 | 6,535,066 |
| Falue of production. | £ | 301,037 | 2,194,784 | 156,484 | 179,191 | 153,026 | 15,210 | 2,999,732 |

(a) Includes Billinery.

MILLINERY ESTABLISHMENTS, 1943-44.

| Items. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust | Tas. <br> (a) | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories . . | 65 | 54 | 13 | II | 7 |  | 150 |
| Number of persons engaged .- | 996 | 723 | 322 | 192 | 45 | $\cdots$ | 2,278 |
| Yalue of land and buildings $£$ | 221,746 | 128,405 | 38,706 | 26,415 | 4,315 | $\ldots$ | 419,587 |
| Value of plant and machinery 5 | 15,011 | 14,153 | 7,178 | 1,210 | 196 | . | 37,748 |
| Wages paid - . £ | 167,104 | 124,372 | 50,251 | 26,385 | 4.958 | . | 373,070 |
| Value of fuel used . . | 4,407 | 3,462 | 1,178 | 668 | 96 | $\cdots$ | 9,811 |
| Value of materials used | 266,520 | 201935 | 72.555 | 38,715 | 8,567 |  | 588,292 |
| Total value of output | 628,746 | 453,171 | 162,079 | 79,053 | 16,364 |  | 1,339,413 |
| Value of production .. | 357,819 | 247,774 | 88,346 | 39,670 | 7,701 | . | 741,310 |

(a) Included in Dressmaking.
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. Particulars of dressmaking and millinery establishments in Australia for the four years ended 1943-44 compared with 1938-39 are shown in the following table :-

DRESSMAKING AND MILLINERY ESTABLISHMENTS : AUSTRALIA.

| Items. |  |  | 1938-39. | 1940-41. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | $\cdots$ | 869 | 848 | 837 | 814 | 838 |
| Number of persons engaged | $\cdots$ | $\cdots$ | 16,398 | 16,087 | 15,264 | 13,398 | 13,822 |
| Falue of land and buildings | . | £ | 2,051,611 | 2,125,668 | 2,062,562 | 2,029,915 | 2,149,258 |
| Value of plant and machinery | . | £ | 189,263 | 197,836 | 200,947 | 212,289 | 237,809 |
| Weges paid .- | .. | $\stackrel{1}{\text { ¢ }}$ | 1,652,808 | 1,817,518 | 1,926,568 | 1,913,297 | 2,134,257 |
| Value of fuel used | . | £ | 33,067 | 35,974 | 37,34 1 | 36,320 | 39,699 |
| Value of materials used | . | $\mathcal{E}$ | 2,609,363 | 3,205,274 | 3,510,770 | 3,563,197 | 4,093,738 |
| Total value of output | - | $\mathcal{£}$ | 5,234,727 | 6,149,563 | 6,872,862 | 6,869,242 | 7,874,479 |
| Value of production |  | £ | 2,592,297 | 2,908,315 | 3,324,75 | 3,269,725 | 3,741,042 |

21. Shirts, Collars and Underclothing.-(i) Details for each State, 1943-44. Partioulars of this industry are shown in the following table:-

## SHIRTS, COLLARS AND UNDERCLOTHING, 1943-44.


(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The following table shows the progress of the industry since 1938-39:-

SHIRTS, COLLARS AND UNDERCLOTHING: AUSTRALIA.

| Items. |  |  | 1938 -39. | 1940-41. | 194 1042. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | $\ldots$ | $\cdots$ | 283 | 282 | 238 | 293 | 298 |
| Number of persons engaged | . | $\cdots$ | 11.081 | 11,078 | 10,740 | 9,851 | 9,716 |
| Falue of land and buildings | . | £ | 945,972 | 962,681 | 1,009,714 | 1,028,651 | 1,079,603 |
| Value of plant and machinery | . | $\pm$ | 230,579 | 244,640 | 244,730 | 259,913 | 275,596 |
| Wages paid .- |  | E | 1,142,855 | 1,264,067 | 1,432,992 | 1,143,680 | 1,574,283 |
| Value of fuel used |  | £ | 23,639 | 25,611 | 26,626 | 25,858 | 26,162 |
| Value of materials used | $\cdots$ | $\underline{1}$ | 2,650,779 | 3,497,898 | 4,205,433 | 4,353,022 | 4,874,577 |
| Total value of output |  | f | 4,435,209 | 5,559,702 | 6,623,001 | 6,605,309 | 7,339,928 |
| Value of production |  | £ | 1,760,791 | 2,036,193 | 2,390,942 | 2,226,429 | 2,439,189 |

22. Boot and Shoe Making and Repairing.-(i) Boot and Shoe Factories, 1943-44. The boot and shoe factories hold an important place both in regard to employment afforded and extent of output. The following table relates to boot and shoe factories as distinct from those devoted to repairing and bespoke work :-

BOOT AND SHOE FACTORIES, 1943-44.

| Itemb. | N.S.W. | Victoria. | Q'lend. | S. Aust. | W .Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 109 | 177 | 23 | 17 | 8 | 3 | 337 |
| Number of persons engaged | 5,779 | 8,423 | 859 | 931 | 424 | 82 | 16,498 |
| Value of land and buildings $f$ | 596,873 | 680,856 | 40,316 | 63,747 | 47,136 | 5,020 | 1,433,948 |
| Value of plant and machinery $f$ | 290,703 | 522,158 | 72,520 | 149,745 | 51,706 | 1,870 | 1.088,702 |
| Wages paid $\quad$ - | 1,306,389 | 2,044,636 | 182,128 | 195,000 | 90, 160 | 14,632 | 3,832,945 |
| Falue of fuel used . . | 21.556 | 38,458 | 2,557 | 3,694 | 1,907 | 274 | 68,446 |
| Value of materials uged | 2,487,840 | 4,191,603 | 376,950 | 369,869 | 185,356 | 47,839 | 7,659,457 |
| Total value of output | 4,404,285 | 7,376,946 | 645,044 | 622,834 | 302,666 | 74,49 | 13,426,266 |
| Falue of production . . | 1,894,889 | 3,146,885 | 265,537 | 249,271 | 115,403 | 26,378 | 5,698,363 |

(ii) Boot Repairing, including Bespoke Work. The introduction of small power plants in repairing shops has brought this class of establishment within the meaning of a factory for statistical purposes. Shops using small power plants have spread rapidly throughout Australia, and in 1943-44 numbered 1,340, employing 2,61I persons. The sum of $£ 279,571$ was distributed in salaries and wages, and the output was valued at £i,296,436.
(iii) Quantity and Value of Production. The number and value of boots, shoes and slippers made at factories in each State are shown in the following table :-

BOOT AND SHOE FACTORIES : OUTPUT, 1943-44.

(a) Not a vailable for publication
(b) Includes particulars for States marked (a)
(c) Made for other than factory use.
23. Grain-milling.-(i) Details for States, 1943-44. The following table shows the position of the grain-milling industry in each State :-

GRAIN-MILLING, 1943-44.

Items.

Number of factories . Number of persons engaged Value of land and buildings Value of plant and machinery Wages paid
Value of fuel used
Value of materials used Total value of output Value of production.

(a) The manufacture of cornflour, oatmeal, etc., was also carried on in some of these establishments.
(ii) Production of Flour and By-products, 1938-39 and 1940-41 to 1943-44. The production of flour by the mills in each State for the years indicated was as follows :-

GRAIN-MILLING : PRODUCTION OF FLOUR.

(a) Tons of $2,000 \mathrm{lb}$.

The 1943-44 production of $1,358,490$ tons of flour in Australia was valued at
 made. The quantity of wheat ground was $69.559,014$ bushels.
24. Bakeries.-Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1943-44 is given in the table below. It should be noted, however, that, as explained in § 1 , par. 2, p. 908 the details refer only to establishments coming within the definition of a factory. For that reason there are a large number of bakehouses omitted and consequently the table does not give complete details of the industry. This is true of all other industries covered by the statistics of manufacturing production but, in view of the omission of such a large number of establishments in this instance, special mention of this fact is deemed necessary.

BAKERIES (INCLUDING CAKES AND PASTRY), 1943-44.

| Items. |  | N.8.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas.(a) | Australis. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 857 | 728 | 270 | 156 | 148 | 88 | 2,247 |
| Number of persons engaged |  | 4,649 | 3,647 | 1,627 | 1,006 | 540 | 1,144 | 12,613 |
| Value of land and buildings | £ | 2,692,609 | 1,490,583 | 476,854 | 302,397 | 203,977 | 347,992 | 5,514,4 ${ }^{12}$ |
| Value of plant and machinery | E | 650,189. | 464,268 | 155,529 | 150,632 | 61,165 | 110,904 | 1,592,687 |
| Wages paid | f | 1,057,207 | 781,467 | 323.916 | 227,120 | I 10,961 | 238,537 | 2,739,208 |
| Value of fuel used | £ | 215,428 | 141 ,030 | 57,335 | 39,745 | 22,781 | 32,630 | 508,949 |
| Value of materials used | £ | 3,665,141 | 2,884,84 | 1,316,748 | 759,505 | 438,020 | 797,861 | 9,862,116 |
| Total value of output | E | 6,200,274 | 4,887,909 | 2,177,069 | 1,271,176 | 746,937 | 1,201,592 | 16,484,957 |
| Value of production .. | £ | 2,319,705 | 1,862,038 | 802,986 | 471,926 | 286,136 | 371,101 | 6,113,892 |

(a) Includes Confectionery.
25. Sugar-mills.-(i) Dztails for 19ł3-44. The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queensland in 1943-44. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XX. "Agricultural Production ".

SUGAR-MILLS, 1943-44.


The products of the sugar-mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Part of the molasses produced is used for distillation, part is prepared for human consumption, part is turned into food-cake for cattle, part is used for manuring land, and the balance is either burnt as fuel or is allowed to run to waste. The latter, however, is a diminishing quantity.
(ii) Progress of Industry. (a) New. South Wales. The following table gives details of this industry in New South Wales since rgII:-

SUGAR-MILLS : NEW SOUTH WALES.


The concentration of cane-crushing in establishments fitted with modern machinery has caused the closing of the small home mill and thereby reduced the number of mills operating. The Government assistance, referred to in Chapter XX. "Agricultural Production ', has resulted in considerable progress in the cultivation of sugar-cane and increased activity in milling. Particulars regarding cane crushed and sugar produced embodied in these tables refer to the quantities treated during the years ended 3oth June, irrespective of the season in which the cane was grown; consequently the figures relating to cane crushed and sugar produced may differ slightly from those given in Chapter XX. " Agricultural Production " which relate to harvest years.
(b) Queensland. Details for Queensland for 1911, 1938-39 and the three years 1941-42 to 1943-44 are given hereunder :-

SUGAR-MILLS: QUEENSLAND.

| Items. |  | 1911. | 1938-39. | 1941-42. | 1942-43. | 1943-44. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of tactories |  | 49 | 33 | 33 | 32 | 33 |
| Number of persons | engaged | 4,295 | 4,419 | 4,100 | 4, II4 | 3,834 |
| Cane crushed | tons | 1,534,45 | 5,432,193 | 4,794,237 | 4,353,488 | 3,397.617 |
| Sugar produced |  | 173,296 | 775,064 | 697,644 | 605,609 | 486,423 |
| Molasses- |  |  |  |  |  |  |
| Sold to distillers and others | gals. | 2,393,669 | 8,275,887 | 12,882,397 | 10,457.747 | 7,345,596 |
| Used as fodder. . | , | 789,564 | 4,237,196 | 3,490,937 | 3,071,918 | 3,055,728 |
| Used as manure |  | 223,000 | 3,293,543 | 1,510,650 | 1,857,300 | 2,122,220 |
| Run to waste |  | 847,333\{ | 498,926 | 55,237 | 31,153 | 97,643 |
| Burnt as fuel .. |  | 1,847,333 | 3,748,590 | 1,232,338 | 3,024,370 | 2,176,926 |
| Sold or used for other purposes | " |  | 232,049 | I58,821 | 303,240 | 441,522 |
| In stock | " | 1,197,626 |  |  |  |  |
| Total molasses | $\cdots$ | 6,451,192 | 20,286,191 | 19,330,38o | 18,745,723 | 15,239,635 |

26. Sugar Refineries.-The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated on in the earlier years coming chiefly from Mauritius and the East. In 1943-44 there were two sugar refineries in each of the States of Victoria and Queensland, and one in each of the States of New South Wales, South Australia and Western Australia. The quantity of raw sugar treated amounted to 436,656 tons, for a yield of 418,584 tons of refined sugar, valued at $£ 13,391$, oro.
27. Confectionery Factories.-(i) Details for each State, 1943-44. The figures for 1943-44 are given hereunder :-

SUOAR CONFECTIONERY FACTORIES,(a) 1943-44.


[^3](ii) Total for Australia, 1938-39 and 1940-4I to 1943-44. Particulars of the confectionery industry during the last four years are compared with 1938-39 in the following table:-

## SUGAR CONFECTIONERY FACTORIES( $a$ ) : AUSTRALIA.


(a) See notes to previous table.

Confectionery establishments in Tasmania have been combined with bakeries in order to conceal confidential information. Production in Australia is more than sufficient to supply local requirements.
28. Jam and Fruit Preserving, Pickles, Sauces and Vinegar Factories.-(i) Details for each State, 1943-44. The following table gives particulars of factories included in this class for 1943-44:-

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1943-44.

| Items. | N.S.W. | Victoria. | Q'land. | S. Aust. | W.Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factorles | 53 | 51 | 13 | 14 | II | $10^{1}$ | 152 |
| Number of persons engaged | 3,549 | 5,005 | 489 | 835 | 306 | 1,232 | 11,416 |
| Value of land and buildings $\mathfrak{f}$ | 653,028 | 965,492 | 57,441 | 121,895 | 54,528 | 202, 466 | 2,055,850 |
| Value of plant and machinery $£$ | 452,911 | 514,836 | 58,362 | 50,989 | 51,482 | 67,374 | I, 195,954 |
| Wages paid | 893,097 | 1,231,150 | 104,708 | 157,730 | 55,785 | 298,245 | 2,740,715 |
| Value of fuel used . . £ | 82,908 | 119,665 | 8,084 | 17,699 | 7,591 | 34,049 | 269,996 |
| Valne of materials ased | 3,588,315 | 5,727,610 | 556,435 | 628,961 | 225,989 | I, 159,325 | I $1,886,635$ |
| Total value of output $\quad$ £ | 5,179,193 | 3,238,373 | 765,817 | 915,344 | 328,244 | I,558,535 | 16,985,506 |
| Value of production . . £ | 1,507,970 | 2,391,098 | 201,298 | 268,684 | 94,664 | 365,161 | 4,828,875 |

(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. Particulars in connexion with these establishments in Australia for the four years 1940-41 to 1943-44 compared with 1938 - 39 are given hereunder :-

Jam and fruit preserving, pickles, etc., factories : australia.


The progress of the jam-making industry was very marked during the war years of 1914-19, and a peak of 142 million lb. was reached in 1918-19. During the succeeding years the production varied considerably, falling to $66,120,000 \mathrm{lb}$. in 1930-31. During the 1939-45 War production again expanded and a record output of 171 million lb . was attained in 1943-44. The output of preserved fruit reached the record dintensions of $157,761,000 \mathrm{lb}$. in 1937-38. Production in 1943-44 was lower at $120,861,000 \mathrm{lb}$. The production of pickles and sauces again showed a satisfactory improvement.
(iii) Production. The following table shows the quantity and value of jams, pickles and sauces manufactured in each State in 1943-44:-

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES : OUTPUT, 1943-44.

| Particulars. | N.S.W. | Victoria. | Q'land. | S. Aust. | F. Aust. | Tas. | Anstralia. <br> (b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | Quant | ity. |  |  |  |  |
| Jams and Jellies .. 'ooo lb. | 54,667 | 70,740 | 8,781 | 10,960 | 1,347 | 24,458 | 170,953 |
| Pruit Pulp- in own |  |  |  |  |  |  |  |
| works $\quad$ cowt. | 37,255 | 31,737 | (a) | 87,275 | 4,380 | (a) | b168,861 |
| For sale or addition to stock cowt. | 28,949 | 51,799 | (a) | 4,521 | 85,620 | (a) | ¢ 6383.075 |
| Tomato Pulp- |  |  |  |  |  |  |  |
| $\begin{array}{ccc}\begin{array}{c}\text { Consumed } \\ \text { works }\end{array} & \text { in } & \text { own } \\ \text { cwt. }\end{array}$ | 10,527 | 99,805 | 665 | 20,945 | 3,089 |  | 135,031 |
| For sale or addition to stock .. ewt. | 44,538 | 99,805 373,864 |  | 20,945 $5: 160$ |  |  | 45,031 466,038 |
| Fruit, preserved $\cdots$, 'ooo Ib. | 19,211 | -80,375 | 10,190 | 5,944 |  | 30,040 4,893 | 120,861 |
| Pickles .. ..'ooo pints | 4,843 | 3,556 | (a) | 5,384 | (a) |  | 13 9,992 |
| Sauces .. .. , " | 14,571 | 19,258! | 1,162 | 3,159 | (a) | (a) | $\\|^{b} 39,306$ |

## Valur.

Jams and Jellies .
Fruit, preserved
Pickles
Sauces

| $£$ | $1,432,527$, | $1,883,360$ |  |
| :---: | :---: | :---: | :---: |
| $\mathbf{£}$ | 199,720 | $1,780,293$ |  |
| £ | 249,443 | 142,895 |  |


| $284,165:$ | 283,6981 | 36,170 |
| :---: | :---: | :---: |
| 260,775 | 128,113 | 5,035 |
| $(a)$ | 65,777 | $(a)$ |
| 57,359 | 105,916 | $(a)$ |

(b) Includes particulars for States marked (a).
29. Bacon-curing Factories.-(i) Details for each State, 1943-44. The table hereunder gives particulars of factories engaged in bacon-curing in each State for 1943-44 : -

BACON-CURING FACTORIES, 1943-44.

(ii) Quantity and Value of Production. The number of pigs cured and the quantity and value of the production of factories in each State for 1943-44 are given in the following table :-

BACON-CURING FACTORIES : PIGS CURED AND PRODUCTION, 1943-44.

(a) Partly estimated.

Bacon and ham and other pig products are dealt with more fully in Chapter XXI. "Farmyard, Dairy and Bee Products".
30. Butter, Cheese and Condensed Milk Factories.-(i) Details for each State, 1943-44. The following table gives particulars of butter, cheese and condensed milk factories in each State :-

BUTTER, CHEESE AND CONDENSED MILK FACTORIES, 1943-44.

| Items. | N.S.W. | Victoria. | Q'land. | Aust. | W.A. | Tas. | Australis. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 117 | $152{ }^{\circ}$ | 99 | 47 | 17 | $40^{\prime}$ | 2 |
| Number of persons engaged | 1,937 | 3,811 | 1,710 | 714 | 265 | 275 | 8,712 |
| Value of land and buildings | 733,815 | 1,448,699 | 753,91\% | 212,849. | 79,001 | 132,222 | 3,360,498 |
| Value of plant and machinery | 921,990 | 1,367,977 | 859,570 | 152,513 | 81,998 | 115,017 | 3,499,065 |
| Waues paid | 558,102 | 1,160,789 | 476,398 | 184,194 | 74,094 | 72,440 | 2,526,017 |
| Value of fuel used | 183,005 | 329,981 | $1 \pm 4,699$ | 43,555 | 22,153 | 14,818 ${ }^{\text {\| }}$ | 708,211 |
| Value of materials used | 8,781,359 | 11,936,8721 | 0,736,31311 | 1,989,682, | 1,127,105 | 729,499 | 35,300,830 |
| Total value of output | 9,802,228 | 14,475,120'1 | $1,815,26312$ | 2,389,273 | $\mathrm{T}, 317,95 \mathrm{I}$ | 903,469 | 40,703,304 |
| Value of production | 837,864 | 2,208,267' | 964,251 | 356,036, | 168,693 | 159,152 | 4,694,263 |

(ii) Total for Australia, 1938-39 and 1940-4I to 1943-44. The progress during the four years 1940-4I to 1943-44 of industries included in this group is compared with 1938-39 in the following table :-

## bUTTER, CHEESE AND CONDENSED MILK FACTORIES : AUSTRALIA.


(iii) Quantity and Value of Production. The next table shows the quantities and values of butter, cheese and condensed milk produced and the quantities of milk used in their production during 1943-44. These details are restricted to factory production and therefore exclude farm output.

BUTTER, CHEESE AND CONDENSED MILK FACTORIES : PRODUCTION, 1943-44.

(a) Not available for publication. (b) Includes particulars for States marked (a). (c) Includes $1,720,440 \mathrm{lb}$. of cheese, valued at $£ 69,846$, made in establishments not classified as factories.

The butter, cheese and condensed milk industries are dealt with more fully in Chapter XXI. "Farmyard, Dairy and Bee Products".
31. Meat and Fish Preserving Works.-The industries included in this group are ongaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by steamship companies trading between Australia and other parts of the world. The substitution of chilled for frozen meat exported has already been referred to in Chapter XIX. " Pastoral Production ".

## MEAT AND FISH PRESERVING WORKS,(a) 1943-44.

| Items. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 14 | 12 |  | 3 | 6 | 3 |  |
| Number of persons engaged | 1,171 | 1,127 | 5,691 | 282 | 61 | 45 | 8,377 |
| Value of land and buildings $f$ | 151,063 | 143,325 | 1,563,516 | 18,912 | 21,798 | 18,930 | 1,917,544 |
| Value of plant and machinery $\mathbf{E}^{\text {d }}$ | 134,582 | 86,162 | 932,150 | 9,166 | 23,887 | 16,293 | 1,202,240 |
| Wages paid.. $\quad$. | 329.312 | 327,416 | 2,017,517 | 60,457 | 20,602 | 11,215 | 2,766,519 |
| Value of fuel used ... $\quad$ ¢ | 53,178 | 31,222 | 203,232 | 4,099 | 4,031 | 2,106 | 297,868 |
| Valne of materials used $\quad \leq$ | 2,038,126 | 2,320,668 | 9,690,938 | 461,485 | 74.869 | 19,922 | 14,606,008 |
| Total value of output $\quad £$ | 2,828,833 | 3,311,797 | I2,499,OI3 | 574,334 | 108,28I | 51,014 | 19,373,272 |
| Value of production . . $\boldsymbol{x}$ | 737,529 | 959,907 | 2,604,843\| | 108,750 | 29,381 | 28,986 | - 4,469,396 |

(a) Includes meat extracts.

Particulars regarding the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in Chapter XIX. " Pastoral Production".
32. Breweries.-(i) Details for each State, 1943-44. The following table gives particulars relating to breweries in each State :-

BREWERIES, 1943-44.

| Items. |  | N.S.W. | Victeria. | Q'land. | S. Aust. | W. Aust. | Tas, |  | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 6 | 8 | 6 | 5 | 6 | 2 |  | 33 |
| Number of persons engaged |  | 1,065 | 1,374 | 478 | 305 | 548 | 103 |  | 3,873 |
| Value of lavd and buildings | $\underline{1}$ | 1,168,014 | 756,689 | 502,028 | (a) | 282,962 | (a) |  | 3,196,938 |
| Value of plant and machinery | £ | 705,568 | 830,740 | 384,367 | (a) | 270,259 | (a) |  | 2,595,508 |
| Wages paid | $\pm$ | 362,744 | 556,889 | 168,508 | (a) | 209,055, | (a) | $b$ | 1,444,363 |
| Value of fuel used | $\underline{5}$ | 99,543 | -98,086 | 50,576 | (a) | 48,248 | (a) | $b$ | 339,482 |
| Value of matcrials used | £ | 1,292,586 | :1,383,450 | 424,041 | (a) | 478,900 | (a) |  | 4,015,503 |
| Total value of output | E | 3,784,024 | 2,621,378 | 1,369,34 8 | (a) | [1,214,680 | (a) |  | 9,969,828 |
| Value of production.. | £ | 2,391,895 | \|1,139,842 | 894.731 | (a) | 687,532. | (a) |  | 5,614,843 |

(a) Not a vailable for publication. (b) Includes particulars for States marked (a).
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44 The next table showe the extent of this industry for $193^{8-39}$ and the four years 1940-4I to 1943-44 :-

BREWERIES : AUSTRALIA.


The quantity of ale, stout and beer brewed fell from 73.7 million gallons in 1928-29 to 49.8 million gallons in 1931-32, but thereafter increased each year to $109,155,107$ gallons in 194I-42. The average annual consumption of ale, stout and beer prior to the economic depression of the early thirties exceeded II gallons per head of the population ; it dropped to 7.32 gallons in 1931-32, increased to 13.76 gallons in 1941-42 and declined again to 12.94 gallons in 1944-45.
(iii) Materials Used and Production. The table below shows the quantities of raw materials used and the quantity and value of ale, stout and beer brewed in each State during 1943-44.

BREWERIES : MATERIALS USED AND PRODUCTION, 1943-44.

| Particulars. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Raw Material Used. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Malt | bushels | 1,098,320 | 956,171 | 397.212 | (b) | 345,345 | (b) | (c)3,146,215 |
| Hops | lb. | 839,366 | 798,410 | 304,764 | (b) | 216,727 | (b) | $\text { (c) } 2,413,458$ |
| Sugar | cwt. | 168,220 | 121,580 | 46,5 $=0$ | (b) | 27,980 | (b) | (c) 402,240 |


| Malt .. bushels | 28.73 | 31.26 |  | 34.97 | 35.71 | 38.41 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hops .. lb. | 21.96 | 26.10 | 23.78 | 29.93 | 22.41 | 20.65 | 23.88 |
| Sugar . ${ }^{\text {cwt. }}$ | 4.40 | 3.97 | 3.63 | 4.28 | 2.89 | 2.48 | 3.98 |

Ale, Stout and Beer Brewed.

(a) Excludes Excise duty.
(b) Not available for publication.
(c) Includes particulars for Stater marked (b).
33. Distilleries.-Distilleries are located in all the States except Western Australia and Tasmania. The following table, which has been compiled from returns of the Excise Branch of the Department of Trade and Customs, shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the years 1940-4I to 1943-44 compared with the year $193^{8}-39$.

DISTILLERIES: AUSTRALIA.

34. Tobacco, etc., Factories.-(i) Details for each State, 1943-44. During 1943-44 there were 25 establishments in which the manufacture of tobacco, cigars or cigarettes was carried on. There are no such factories in Tasmania.

TOBACCO, CIGAR AND CIGARETTE FACTORIES, 1943-44.


> (a) Not available for publication. (b) Includes particulars for States marked (a).
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. This industry was among the first to be established in Australia. In 1861 New South Wales had eleven factories, producing $177,744 \mathrm{lb}$. of manufactured tobacco ; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1943-44 comprised-manufactured tobacco 328,030 lb., cigars 4 I lb ., and cigarettes $74,143 \mathrm{lb}$., and the quantities manufactured in Australian
factories were respectively $18,186,936 \mathrm{lb} ., 134,498 \mathrm{lb}$., and $8,929,100 \mathrm{lb}$. The following tables show the extent of the industry in Australia for the four years 1940-4I to 1943-44 compared with 1938-39:-

TOBACCO, CIGAR AND CIGARETTE FACTORIES : AUSTRALIA.


For many years the production of locally-grown leaf was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw material. Increased duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 midion lb . in 1929-30 to over 3 million lb . in 1930-31; in 1932-33 the quantity of local leaf used fell to 2.7 million lb., but it has since risen to 4.95 million lb. in 1943-44. In this connexion, see Chapter XX. "Agricultural Production ".
35. Sawmills, etc.-(i) Details for States, 1943-44. The most important industry in Class X. is that of sawmilling. As separate particulars of forest sawmills are not available for some of the States, both forest and town sawmills, as well as plywood and bark mills, have been combined in the following table :-

SAWMILLS, FOREST AND TOWN PLYWOOD AND BARK MILLS, 1943-44.

| Items. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 606 | 296 | 334 | 50 | 114 | 222 | 1,622 |
| Number of persons engaged | 5,849 | 3,670 | 5,557 | 1,229 | 2,095 | 1,623 | 20,023 |
| Falue of land and buildings $£$ | 810,223 | 402,522 | 392,450 | 239,265 | 196,690 | 122.249 | 2,163,399 |
| Faiue of plant and machinery | 822,888 | 741 ,080 | 663,421 | 193,587 | 422,652 | 319,133 | 3,162,761 |
| Wages paid . $\mathbf{E}^{\text {P }}$ | 1,465,750 | 991,165 | 1,405,117 | 314,764 | 542,984 | 367,403 | 5,087,183 |
| Value of fuel used | ,96,702 | 71.170 | 66,626 | 18,849 | 41,908 | 29,957 | 325,212 |
| Value of materials used $£$ | 3,881,526 | 2,143,743 | 2,523,423 | 1,024,468 | 722,569 | 575,439 | 10,871,168 |
| Total value of output $\mathcal{E}$ | 6,323,086 | 3,942,106 | 4,746,595 | r,591,819 | 1,526.759 | 1.147,749 | 19,278,114 |
| Falue of production $£$ | 2,344,858 | 1,727,193 | 2,156,546 | 548,502 | 762,282 | 542,353 | 8,081,734 |

(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The development of forest and other sawmills, etc., since $193^{8-39}$ is shown in the following table :-
SAWMILLS, FOREST AND TOWN ; PLYWOOD AND BARK MILLS : AUSTRALIA.

| Items. |  |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |

The sawmill output of native timber, which declined from 740 million super. feet in 1925-26 to the abnormally low figure of 237 million super. feet during the depth of the depression, recovered to 717 million super. feet in $193^{8-39}$ and stood at 850 million super. feet in 1943-44. Further reference is made to the sawmilling industry in Chapter XXII. "Forestry".
36. Furniture, Cabinet-making, and Upholstery.-These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State in 1943-44:-

FURNITURE, CABINET-MAKING AND UPHOLSTERY FACTORIES, 1943-44.

37. Printing Works.-Printing and bookbinding works rank high in importance among the industries of Australia, and in 1943-44 afforded employment for about 21,600 employees, and paid nearly $£_{5}, 821,000$ in salaries and wages, while the value of output amounted to $£ 18,187,000$. The first table below gives particulars of establishments engaged in general printing in each State for 1943-44. These establishments include those engaged in lithographic printing, the printing of periodicals, excepting those which may be produced by newspapers, bookbinding, paper ruling and linotyping. Govermment printing works are included, but establishments producing newspapers and weekly publications are shown separately in the second table to follow:-

GOVERNMENT AND GENERAL PRINTING WORKS, 1943-44.


## ESTABLISHMENTS PRODUCING NEWSPAPERS (INCLUDING WEEKLY PUBLICATIONS), 1943-44.


38. Tyres, Motor and Cycle.-(i) Details for each State, 1943-44. The following table gives particulars of this industry for each State during 1943-44 :-

TYRES, MOTOR AND CYCLE, 1943-44.

(a) Includes Rubber Boots and Shoes and Other Rubber Goods.
(ii) Total for Australia, 1938-39 and 1940-41 to 1943-44. The development of this industry since 1938 -39 is shown in the following table :-

## TYRES, MOTOR AND CYCLE( $a$ ) : AUSTRALIA.


(a) Tncludes Rubber Boots and shoes and Other Rubber Goods for Tasmania.
39. Electric Light and Power Works.-(i) Details for each State, 1943-44. The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1938-39 the production of eleotric light and power has increased from 4,688 to 6,656 million K.W.H., or by 42 per cent. Particulars for the year 1943-44 are as follows :-

ELECTRIC LIGHT AND POWER WORKS, 1943-44.


Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on p. 913.
(ii) Production, 1938-39 and 1940-41 to 1943-44 The increase in the production of electric light and power in each of the States since $1938-39$ is shown in the following table :-

## ELECTRIC LIGHT AND POWER WORKS : PRODUCTION.

Year. i N.S.W. Victoria. Q'land. S. Aust. W. Aust. Tasmadia. Australia.

40. Gas-works.-(i) Detsils for each State, 1943-44. Gas-works are in operation in the majority of important towns in Australia. New South Wales returned eight coke factories and Queensland two, working as separate industries, but under the present classification these are included in Class I.-Treatment of Non-metalliferous Mine and Quarry Products. The following table gives particulars of gas-works in each State for the year 1943-44:-

GAS-WORKS, 1943-44.

Items. N.S.W. Victoria. Q'land. S. Aust. W. Aust. Tas. Australia.

| Number of factories |  | 42 | 39 | 16 | 4 |  | 4 |  | 2. | 107 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of persons engaged |  | 1,185 | 1,109 | 308 | 373 |  |  |  | 52 | 3,181 |
| Value of land and buildings | £ | So3,176 | 438,037 | 187.730 | 25.340, | (a) |  | (a) |  | b1, 5 fi, 1,25 |
| Value of plant and machinery | £ | 3,191,316 | 3,223,975. | 579,33: | 1,20<6,5,0' | (a) | 1 | (a) |  | 68,53:,815 |
| Wages paid | £ | 420,632 | 379,566 | 105,232 | 125,168 | (a) |  | (a) |  | $b 1,098,904$ |
| Value of fuel used | £ | 325,232 | 36,338 | 7,529 | 2,495 | (a) |  | (a) |  | $b$ +01,067 |
| Value of materials used | $\mathfrak{£}$ | 1,449,844 | 1,470,004 | 283,383 | 300,74 ${ }^{\circ}$. | (:) |  | (a) |  | $b_{3,725,871}$ |
| Total value of output | £ | 3,577,340 | 2,299,945 | 686,832 | $490,280^{\circ}$ | (a) |  | (a) |  | 37,454,649 |
| Value of production. | £ | 1,802,264, | 793,603 | 395,920 | 187,045 | (a) | , | (a) |  | b3,327,711 |

(a) Not available for publication. (b) Inchudes particulars for States marked (a).
(ii) Coal Used and Production, 1943-44. The following table gives details for 1943-44:-

GAS-WORKS : COAL USED AND PRODUCTION, 1943-44.
Particulars. N.S.W. Victoria. ' Q'land. S. Aust. W. Aust. Tas. Australia.

(a) Not avallable for publication.
(b) Includes particulars for States marked (a).

Since 1938-39, when the output of gas was 21 thousand million cubic feet, production has increased each year and reached almost 30 thousand million cubic feet in 1943-44.


[^0]:    (a) Excludes Central Electric Stations.

[^1]:    (a) Includes outworkers.

[^2]:    (a) Includes the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.
    (b) Includes lubricauts and water.

[^3]:    (a) Includes Chocolate and Ice Cream.
    (b) Ice Cream factory-Other Confectionery included In Bakeries.
    (c) Not available for publication.
    (d) Includes particulars oi states marked (c).

