## CHAPTER XXIV.

## MANUFACTURING INDUSTRY.

Nors.-in all tables relating to employees-except where specially mentioned$\rightarrow$ Number of Employees" includes working proprietors.

## § 1. Number and Classification of Factories.

I. Number of Factories in each State.-The following table gives the number of factories in each State for the years specified :-

FACTORIES.--NUMBER.

| Year. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmana. | Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1931-32 | 7,397 | 8,204 | 2,013 | 1,662 | 1,490 | 891 | 21,657 |
| 1932-33 | 7,444 | 8,612 | 2,155 | 1,710 | 1,499 | 910 | 22,330 |
| 1933-34 | 7,818 | 8,896 | 2,345 | 1,733 | 1,606 | 899 | 23,297 |
| 1934-35 | 8,254 | 9,100 | 2,470 | 1.803 | 1,658 | 926 | 24,211 |
| 1935-36 | 8,486 | 9,160 | 2,482 | 1,895 | 1,946 | 925 | 24,89.4 |

2. Classification of Factories, Australia.-The next table shows the number of factories in Australia for the years specified, classified in the industrial groups agreed upon by the Conference of Statisticians in 1930. This classification which was introduced during the year 1930-3I superseded the grouping which had been in use since 1902. The definition of a factory adupted at the Conference of Statisticians in 1902 is, however, atill used, viz., "Any factory, workshop or mill where four or more persons are empluyed or power is used." Details in regard to some of the principal industries included in the sable will be found in § 9 hereinafter.

FACTORIES.-CLASSIFICATION, AUSTRALIA.


The number of factories in operation declined each year from 1928-29 to 1931-32 as the result of the economic depression, but the returns since the last-mentioned year reveal a substantial recovery in every State, the number recorded for Australia in 1935-36 being the highest to date.
3. Classification of Factories, States, 1935-36.-The following table shows the number of factories in each State in 1935-36, classified according to the nature of the industry :-

FACTORIES.-CLASSIFICATION, 1935-36.


## §2. Classification of Factories according to Number of Employees.

1. States, 1935-36.--The following table ahows, for each State, the number of factories classified according to the number of hands employed in 1935-36:-

FACTORIES.-CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1935-36.


Some marked changes have taken place in the distribution of factories according to the number of employees during the past decade. In 1925-26 of a total of 21,242 factories reported, 7,347 or 3459 per cent. emploved less than five persons whereas in 1935-36 the number of such factories had increased to 10,706 representing 43.0 per cent. of a total of 24,894 factories. The increase in th: number of small factories was probably due to the mnltiplication of small repair establishments (boots and shoes, cycles and motors. etc.) which are technically accounted as factories by the installation of some power machine.

In the other groups, the effect of the economic depression during the middle years of the decade is clearly noticeable, but since 1931-32 the improvement has been very steady. Factories employing over 100 hands advanced from 724 in 1925-26 to a new high level of 835 in 1935-36, the hands employed in these factories increasing from 195,543 or 43.37 per cent. of the total number to 230,889 or 46.0 per cent. during the same period.

The relative importance of large and small factories is more conclusively illustrated by a classification of hands employed according to the size of factory in which they work:-

## FACTORIES.-CLASSIFICATION OF EMPLOYEES, ACCORDING TO SIZE OF FACTORY, 1935-36.

| No. of Persons <br> Employed in <br> Group. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Average Number Employed during Period Woreed.

| Under 4 | 5,450 | 6,248 | 1,649 | 996 | 1,779 | 567 | 16,689 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 .. | 2,864 | 3,304 | 968 | 832 | 4.52 | $4^{16}$ | 8,836 |
| 5 to 10 | 15,284 | 15,314 | 4,715 | 4,190 | 3,08i | 2,391 | 44,975 |
| II to 20 | 16,503 | 16,820 | 5,033 | 4,050 | 2.999 | 1,538 | 46,943 |
| 21 to 50 | 31,713 | 31,673 | 7,674 | 7,197 | 4,449 | 1,886 | 84,592 |
| 51 to 100 | 26,591 | 25,297 | 7,267 | 4,682 | 3,701 | 1,473 | 69,011 |
| Over 100 | 98,729 | 86.410 | 18,535 | 17,512 | 5,204 | 4,499 | 1230,889 |
| Total | 197,134 | 185,066 | 45,84í | 39,459 | 21,665 | 12,770 | 501,935 |
| Av. per F'cty | 23.23 | 20.20 | 18.47 | 20.82 | 11.13 | 13.85 | 20.16 |

2. Australia, 1931-32 to 1935-36. -The percentage of employees in factories with more than roo hands on the total for all factories reached its highest level in 1935-36 with 46.0 per cent., which was slightly in excess of the previous maximum of 44.4 per cent. in the previous year.

## factories.-classification according to number of employees, AUSTRALIA.

| Year. | Establishments Employing on the Average-- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20 hands and under. |  | 21 to 100 hands . |  | roi hands and upwards. |  | Total. |  |
|  | Es- tablishments. | Ennployces. | Es-tablishments. | Employees. | Es-tablishments. | Em. ployees. | Establish ments. | Em. ployees. |
| 1931-32- |  |  |  |  |  |  |  |  |
| Number | 18,507 | 98,685 | 2,603 | 105,64 1 | 547 | 145,886 | 21,657 | 350,212 |
| A verage per establishment |  | 5.33 | $\cdots$ | 40.58 | - | 266.70 |  | 16.77 |
| Percentage on total | 85.45 | 28.18 | 12.02 | 30.16 | 2.53 | 41.66 | 100.00 | 100.00 |
| 1932-33- Number | 18,883 | 102,477 | 2,841 | 117,021 | 606 | 163,462 |  | 382,960 |
| A verage per establishmenti | 18,883 | 102,477 5.43 | 2,841 | 117,025 41.19 | .. | 163,462 269.74 | 22,330 | 382,960 17.15 |
| Percentage on total .. \| | 84.57 | 26.76 | 12.72 | 30.56 | 2.71 | 42.68 | 100.00 | 100.00 |
| 1933-34- |  |  |  |  |  |  |  |  |
| Average per establishment | 19.576 | 108,125 5.52 | 3,052 | 127,068, | ${ }^{669}$ | 181,634 271.50 | 23,297 | 416,837 17.89 |
| Percentage on total .. | 84.03 | 25.94 | 13.10 | 30.48 . | 2.87 | 43.58 | 100.00 | 100.00 |
| ${ }^{1934-35-}$ |  |  |  |  |  |  |  |  |
| Average per establishment. ${ }^{\text {N }}$ | 20,012 | 112,708 5.63 | 3,457 | 143,157 141 | 742 | $20.4,502$ 275.61 | 24,211 | 460,367 19.01 |
| Percentage on total .. | 82.66 | 24.48 | 14.28 | 3x.10 | 3.06 | -44.42 | 100.00 | 19.01 100.00 |
| 1935-36-- |  |  |  |  |  |  |  |  |
| Number $\quad . \quad$. | 20,413 | 117,443 | 3,646 | 153,603 | 835 | 230,889 | 24,894 | 501,935 |
| Average per establishment' |  | 5.75 |  | 42.13 |  | 276.51 |  | 20.16 |
| Percentage on total .. | 82.00 | 23.40 | 14.65 | 30.60 | $3 \cdot 35$ | 46.00 ' | 100.00 | 100.00 |

## § 3. Power used in Factories.

1. States, 1935-36. -The following table shows the number of factories ning oteam; gas, oil, electricity, or water power, and the average horse-power used in r935-35:-

FACTORIES.-AVERAGE HORSE-POWER USED, 1935-36.


Factories in Australia include electrio light and power works. Most of the power In these works is, however, used in generating electric power and light, and the power so produced is counted again under the heading of electricity. The actual amount of duplication cannot be given for all States, but a fair measure of the amount of power used in factories (in the common sense) is given by deducting the total of Class XVI., Heat, Light and Power, from the gross total for all factories. This is done in the last column of the table below. It must not be inferred, however, that the whole of the deduction is a duplication, as portion of it represents the production of light for generas purposes, while an appreciable amount of power is ased on farms and in privats housea.

[^0]FACTORIES.-AVERAGE HORSE-POWER USED, AUSTRALIA.

| Year. | Number of Establishments. |  | Average Horse-power Used. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Steam. | Gas. | Oil. | Electricity. | Total (a). |  |  |
|  |  |  |  |  |  |  |  | Lesa |
|  |  |  | Water. |  |  |  |  | Heat, |
|  |  |  |  |  |  |  | Gross. | Light |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | No. | No. |  | H.P. | H.P | H.P. | H.P. | H.P. | H.P. | H.P. |
| 1931-31 |  | 1,522 |  | 976,890 | 41,706 | 102,106 |  |  | 1,852,879 |  |
| 1932-33 | 20,826 | 1,522 |  | 877,164 | 48,970 | 102,106 102,236 | 590,812 608.883 | 140,375 126,465 | 1,851,879 | 824,021 |
| 1933-34 | 21.696 | 1,601 |  | 984,702 | 38,897 | 100,825 | 681,553 | 111,138 | r,917,1xs | 884,094 |
| 1934-35 | 22,588 | 1.623 |  | 083,461 | 36,232 | 110.98 .4 | 730,573 | 134,012 | 1,995,312 | 941.600 |
| 1935-36 | 23,197 | 1,697 |  | 1,086,642 | 35,050 | 119,341 | 777.016 | 128,840 | $2,146,889$ | 999,595 |

(a) See preceding paragraph.

The last column of the above table, which may be called roughly the net power abed in factories, shows an average increase of about 47,000 horse-power per annum or nearly 6 per cent. per annum during the last four yoars. The net horse-power per employee increased from I. 4 in 1924-25 to I. 6 in 1928-29 and continued to increase in each succeeding year until it reached 2.4 in 1931-32. Nuch of the increase in the latter years was due to a more rapid decline in employees than mechanical power during the economic depression, and the figure has since fallen to 2.0 with the recovery in the number -of employees.
3. Classes of Industry.-The next table shows the average horse-power used in factories, by olasses, in each State during the year 1935-36:-

FACTORIES.-AVERAGE HORSE-POWER USED IN EACH CLASS, 1935-36.

\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline Class of Industry. \& N.S.W. \& Victoria. \& Q'land. \& S. Aust. \& W. Aust. \& Tas. \& Aus. tralia. <br>
\hline I. Treatment of Non-metalliferous Mine and Quarry Products \& H.P.

31,166 \& H.P.
17,204 \& H.P.

2,883 \& H.P.
3.03 I \& H.P.
2,534 \& H.P.

-6.658 \& H.P.

04,706 <br>
\hline II. Bricks, Pottery, (ilass, \&c. \& 31,166
18,843 \& 17,204
14,560 \& 2,853
1,887 \& $3,03 \mathrm{I}$
2,971 \& 2,S34
2,319 \& 7,658
509 \& 64,796
41,089 <br>
\hline III. Chemicals, Dyes, Explosives, Paint. Oils and Grease \& 14,452 \& 14,585 \& 1,890 \& 5,389 \& 3,412 \& 358 \& 40,086 <br>
\hline IV. Industrial Metals, Machines, Implements and Conveyances \& 184.298 \& 53:2 \& 12 \& 17,723 \& ,680 \& 53,163 \& <br>
\hline V. Precions Metals, Jewellery and Plate \& 184.298
860 \& $53,-79$
1,688 \& 12,649
101 \& 190 \& 680
46 \& 53,163
20 \& 329,797
2,905 <br>
\hline VI. Textiles and Textile Goods \& 15.397 \& 28,676 \& 2,159 \& 2,864 \& 929 \& 2,760 \& 52,785 <br>
\hline VII. Sking and Leather \& 6,807 \& 6,574 \& 1,870 \& 176 \& 303 \& 154 \& 15.854 <br>
\hline vIII. Clothing \& 6,764 \& 9,236 \& 1,059 \& 793 \& 581 \& 91 \& 18,524 <br>
\hline IX, Food, Drink and Tobacco . \& 79,144 \& 59,725 \& 69,202 \& 16,691 \& 12,856 \& 5,890 \& 243,528 <br>
\hline $X$. Woodworking and Basketware \& 29,470 \& 21,101 \& 10.114 \& 6,906 \& 6,676 \& 5.870 \& 89,137 <br>
\hline XI. Furniture, Hedding, \&c. . . \& -6,861 \& 5,411 \& 1,900 \& 2,199 \& 960 \& 582 \& 17.913 <br>
\hline XII. Paper, Stationery, Printing, \& 15.970 \& 2,47
17,977 \& 3,5c9 \& 1,920 \& 960
2,043 \& 554 \& 42,963 <br>
\hline XIII. Rubber ... \& 18,015 \& 17:092 \& 783 \& 123 \& 68 \& 81 \& 36,162 <br>
\hline XIY. Musical Instruments \& 506 \& \& 8 \& 8 \& 3 \& \& 579 <br>
\hline XV. Miscellaneous Products \& 2,021 \& 1:636 \& 126 \& 27 T \& 157 \& 136 \& 4,347 <br>
\hline Total less Clase XVI. \& 430,574 \& 268,798 \& 110,230 \& 61,260 \& 41,007 \& 77,826 \& 999,595 <br>
\hline XVI. Heat, Light and Power \& 86,959 \& 179,725 \& 73,164 \& 146,110 \& 73,275 \& 88,061 \& 1,147,294 <br>
\hline Grand Total. . \& 1,017,533 \& 448,523 \& 192,394 \& 207,370 \& 115,182 \& 165,887 \& 2,146,889 <br>
\hline
\end{tabular}

## § 4. Employment in Factories.

.1. Total Number Employed.-Each person employed in and about a factory excepting carters engaged entirely in the delivery of manufactured goods is counted as a factory - mployee, and the figures relating to employment include, therefore, proprietors who work in their own business as well as "outworkers" (see paragraph 5 (ii) hereinafter). Employment has been classified as follows:-(i) Working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) engine-drivers 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 employed each week by the number of weeks worked. The figures, therefore, represented the average number employed over the period worked, which,
for many factories, was less than a full year. Commencing with the year 1928-29 the figare ropresents the equivalent average number employed over a full year of fifty-tyo weeks. The classification of factories according to the number of employees (see § 2 ante), however, is still based on the old method, but for all other purposes the average number employed over the full year is used.

The following tablo shows, for each year from 1931-32 to 1935-36 inclusive, (a) the average number of persons (including both sexes of all ages) employed in manufacturing industries in each State; (b) the percentage of the number employed in each State on the total number employed in Australia; and (c) the number employed per ten thousand of the mean population in each State and Australia.

The number of persons employed in factories in Australia reached its highest point before the depression during the years 1926-27 to 1928-29 when the average for those years was slightly in excess of 450,000 . The downward trend in manufacturing operations which began early in 1930 continued with increasing force until the number employed had fallen to 336,658 in 1931-32, a decline of 25 per cent. on the average already quoted. In 1932-33 there was a pronounced upward tendency, and thereafter each succeeding year recorded further improvement with the number eventually. rising in 1935-36 to a new high level of 492,77I. Stated in relation to population, however, the number employed in 1935-36 was still 5,300 less than in 1926-27.

## FACTORIES.-EMPLOYMENT.



Pergentage on Australian Total

| . | $\%$ | \% | \% | \% | \% | \% | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 193I-32 | $37 \cdot 54$ | 38.10 | 10.63 | 7.08 | 3.98 | 2.67 | 100.00 |
| 1932-33 | $37 \cdot 36$ | 38.96 | 10.09 | 7.10 | 4.00 | 2.49 | 100.00 |
| 1933-34 | 37.96 | 38.52 | 9.87 | 7.26 | 3.98 | 2.41 | 100.00 |
| 1934-35 | 38.93 | 37.74 | 9.58 | 7.45 | 3.95 | 2.35 | 100.00 |
| 1935-36 | 39.21 | 37.21 | 9.16 | 7.81 | 4.26 | 2.35 | 100:00 |
| -- | --- | - | - |  |  | - |  |

Per io,ooo of Population.

2. Rates of Increase, 1931-32 to 1935-36.-The percentage of increase or decrease on the average number of persons employed in the preceding year is shown beiow for each State for each of the years specified:-

FACTORY EMPLOYEES.-ANNUAL INCREASE.-PER CENT.


Note. -The minus sign ( - ) denotes decrease.
3. Employees in Classes of Industry, Australia, 1931-32 to 1935-36.-The table tereunder gives the average number of persons employed in factories under each industrial group in Australia in the years 1931-32 to 1935-36 inclusive:-
.

## FACTORY EMPLOYEES.-CLASSES, AUSTRALIA.



An examination of the returns of employment in the various classes reveals only one major elass which has consistently augmented its numbers since 1928-29. Apart from a decline in 1930-31 Class VI. Textiles progressed in numbers each year, rising from 28,117 employees in 1928-29 to 42,031 in 1935-3 5 . or by nearly 50 per cent. during the period. All the other important classes lost heavily during the course of the depression, and the gains of recent years in most cases represent in effect only the re-engagement of those temporarily displaced. In the largest Class.-Industrial Metals, Machines, etc., however. employment reached a new high level in 1935-36, the number recorded being nearly 14,000 in excess of the previous peak in 1920-27.
4. Employees in Classes of Industry, States, 1935-36. -The following table givea \& olassification of employees in manufacturing industries in each State in 1935-36:-

FACTORY EMPLOYEES.-CLASSES, 1935-36.

5. Employees According to Nature of Employment.-(i) General. In the following table the average numbers of persons employed in the States in 1935-36 are classified according to the nature of their employment:-

FACTORY EMPLOYEES.-NATURE OF EMPLOYMENT, 1935-36.

(a) Including Outworkers.
(ii) Outworkers. The term "outworker" or " homeworker" has acquired a special meaning in connexion with manufacturing industries, and technically embraces only those to whom work is given out by factory owners to be done in the employees' own homes. Individuals working for themselves are not included. The following table gives
particulars of the average number of outworkers connected with factories in each State in each of the last five years:-

FACTORIES.-OUTWORKERS.(a)

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

The Factories Acts in each State contain provisions regulating the employment of outworkers. Records of outwork, specifying the names and remuneration of workers, and stating the places where the work is done, must be kept by factory proprietors. Fuller information regarding the operation of the Factories Acts will be found in Official Year Book No. 16, pp. 540 to 566.

## § 5. Sex Distribution in Factories.

1. Employment of Females.-In all the States the employment of female labour in factories is regulated by Acts of Parliament. More extended reference to this matter will be found in Oficial Year Book No. 16, pp. 540 to 566.
2. Distribution of Employees according to Sex.-(i) General. In New South Wales the ratio of the number of females employed in factories to the number of males during 1886 was about one to seven; in 1891 one to six; in 1903 it became about one to four; and is now more than one to three. In Victoria the ratio of females to males during the year 1886 was about one to five. Five years later (1891) it was somewhat less, but in 1896 had increased to about one to three, and at present about one third of the factory employees are females. In the remaining States the ratio was roughly one female employed to every four males, while that for Australia was two to five. The employment of women is, however, mainly confined to a few trades.
(ii) Average Number of Males and Females Employed. 1931-32 to 1935-36. The next table shows the average number of male and female employees in factories in eacb State for the five years ended 1935-36:-

FACTORIES.-MALES AND FEMALES EMPLOYED.

| State. | 1935-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Malers. |  |  |  |  |  |
| Nev South Wales | 90,682 | 99.721 | 111,653 | 127,114 | 140,896 |
| Victoria.. | 81,618 | 91,899 | 100,959 | 110,910 | 121,734 |
| Queensland | 29,149 | 30,099 | 32,248 | 34,596 | 36,4.I |
| Scuth Australia | 18,932 | 20,901 | 23,743 | 27,271 | 31,391 |
| Western Australid | 10,535 | 11,748 | 12,930 | 14,253 | 16,911 |
| Tasmania | 6,999 | 7,147 | 7,716 | 8,321 | 9,211 |
| Australia | 237,915 | 261,515 | 289,249 | 322,465 | 356,554 |

Females.

| New South Wales | $\ldots$ | 35,686 | 38,794 | 42,408 | 47,919 | 52,304 |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Victoria.. | .. | $\ldots$ | 46,647 | 52,529 | 55,375 | 58,781 | 61,656 |
| Queensland | . | $\ldots$ | 6,650 | 7,289 | 7,835 | 8,452 | 8,717 |
| South Australia | . | $\ldots$ | 4,902 | 5,447 | 5,743 | 6,226 | 7,080 |
| Western Australia | $\ldots$ | 2,857 | 3,067 | 3,233 | 3,521 | 4,082 |  |
| Tasmania | $\ldots$ | . | 2,001 | 2,086 | 2,066 | 2,234 | 2,378 |
| Australia | $\ldots$ | $\ldots$ | 98,743 | 109,212 | 116,660 | 127,133 | 136,217 |

3. Rate of Variation for each Sex.-The porcentages of annual increase or decrease in the years indicated on the arerage number of males and females employed in factories are shown below :-

PERCENTAGES of annual increase, mafe and female factory EMPLOYEES.


Note.-The minus sign ( - ) indicates decrease.
4. Masculinity of Employees in Factories.-The extent to which females are employed in the factories of Australia may perhaps be more clearly shown by giving the , masculinity of employees for each State for a series of years. The following table furnishes particulars for the years 1931-32 to 1935-36:-

## MASCULINITY( $a$ ) OF FACTORY EMPLOYEES.


(a) Number of males per 100 females.

For a number of vears prior to 1926-27 there were on the average 100 females emploved in factories for every 300 males, but in that year the proportion of females began to rise with increasing activity in the clothing and textile industries in which the number of females to males is relatively high. As these trades were not as seriously affected by the depression as the heavier industries, comprised largely of male labour, the proportion continued to rise until in 1932-33 there were only 239 males employed to every 100 females. Since that year the proportion has declined to 262 males in 1935-36, and according to the "Index of Factory Employment" published in Part C.Employment, § 2 par. 4 of Chapter XVII. the figure declined still further in 1936-37 to about 274 males to every ioo females.
5. Employment of Females in Particular Industries.-The greater number of females engaged in manufacturing industries is employed in four classes, viz. :-VI., Textiles; VIII., Clothing ; IX., Food and Drink ; and XII., Paper, Stationery, etc. In 1935-36 these industries accounted for 83.77 per cent. of all females employed in factories. In two classes only did the number of females exceed the number of males, viz., in Class VI.,

Textiles, where there were 147 females to every 100 males and in Class VIII., Clothing. with 281 femsles per roo males. The following tables show the average number of males and females employed in each of these classes in 1935-36:-

MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, 1935-36.


The classification of the employment of females in the several industries in Class VIII., Clothing, which is the most important group, and the relation of their number to that of the males so employed, are shown in the following table :-

FEMALES EMPLOYED IN EACH INDUSTRY IN CLASS VIII., 1935-36.

| Industry. | New South Wales. |  |  | Victeria. |  |  | Other States. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Femininity. (a) | Maleg. | Females. | $\begin{aligned} & \text { Femi- } \\ & \text { ninity. } \\ & (a) \end{aligned}$ | Males. | Females. | Femin!nity. <br> (a) |
| Tailoring and Slop Clothing | 3,96r | 8,629 | 440 | 1,980 | 6,56I | 331 | 1,268 | 4,478 | 353 |
| Waterproof and Oilskin Clothing | $\delta$ | 9 | 113 | 72 | 216 | 300 | 6 | If | 183 |
| Dressmaking .. | 39 | 1,356 | 3,477 | 589 | 7,735 । | 1,313 | 62 | 2,055 | 3,315 |
| Millinery | 138 | 1,334 | 967 | 126 | 1,404 | I,114 | 4 I | 80.4 | I,961 |
| Shirts, Collars and Underclothing .. | 334 | 3,913 | 1,172 | 44 I | 4,449 | 1,009 | 171 | 1,906 | I, I I5 |
| Stays and Corsets . . | 56 | 602 | 1,075 | 144 | 813 | 565 | 7 | 61 | 871 |
| Handkerchlefs, Tles and Scarves | 118 | 867 | 735 | 46 | 524 | I,139 | 5 | 9 | 1 So |
| Hats and Caps | 634 | 1,157 | 182 | 710 | 912 | 128 | 44 | 81 | $\mathrm{I}_{4}$ |
| Gloves .. | 14 | 38 | 271 | 39 | 114 | 292 |  |  |  |
| Boots and Shoes . . | 2,556 | 2,581 | 101 | 4,735 | 4,612 | 90 | 1,090 | 868 | 80 |
| Boot Repairing (Including Bespoke Work) |  |  |  |  |  |  |  |  |  |
| Woot Accessorles . . | 99 S ' | 30 | 3 | 710 | 11 | 2 | 388 | 26 | 7 |
| Boot Accessories ${ }^{\text {Umbrellas and Waik- }}$ | 137 | 33 | 24 | 482 | 196 | 41 | .. | - |  |
| Ing Stick 3 . | 40 | 75 | 188 | 2 S | 37 | 132 | 12 | 17 | 142 |
| Dyeworks and Cleanlag (including Re- |  |  |  |  |  |  |  |  |  |
| novating Repairing and |  | 281 | 61 |  | 41 | 107 |  |  |  |
| Other .. | 50 | 130 | 260 | ${ }_{6}{ }^{6}$ | 338 | 537 | 3 | 321 3 | 170 |
| Total | 7,542 | 21,035 | 279 | 10,556 | 28,341 | 268 ! | 3,286 | 10,640 | 324 |

(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. Reference to the legislation regarding the employment of child labour
in factories will be found in Official Year Book No. I6, pp. 540 to 566. The object of the restrictions imposed is to assure amongst other things that a proper period shall be devoted to primary education, and that the early years of toil shall not exhaust the worker before the attainment of full growth.
2. Average Number of Children Employed, 1931-32 to 1935-36.-In the returns for the various States, the term " child" denotes any person under sixteen years of age. The following table shows the arerage number of children of each sex employed in manufacturing industries in the years 1931-32 to 1935-36:-

CHILDREN EMPLOYED IN FACTORIES.

| State. | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. |  |  |  |  |
| New South Wales | 1,924 | 2,366 | 3,040 | 3,990 | 4,887 |
| Victoria.. | 2,615 | 3.441 | 4,248 | 5,194 | 6,118 |
| Queensland | 920 | 903 | 1,135 | 1,146 | 1,543 |
| South Australia | 509 | 611 | 799 | 1,025 | 1,352 |
| Western Australia | 344 | 351 | 427 | 574 | 777 |
| Tasmanis | 185 | 263 | 219 | 255 | 330 |
| Australia | 6,497 | 7,935 | 9,868 | 12,184 | 15,007 |
| Females. |  |  |  |  |  |
| New South Wales | 3,263 | 3,561 | 4,422 | 5,571 | 6,485 |
| Victoria. . | 4.089 | 4,643 | 5,634 | 6,015 | 6,002 |
| Queensland | 631 | 849 | 981 | 1,048 | 1,281 |
| South Australis .. | 453 | 523 | 644 | 738 | 876 |
| Western Australia | 161 | 202 | 235 | 426 | 473 |
| Tasmania | 109 | 209 | 202 | 294 | 310 |
| Australia | 8,766 | 9,987 | 12,118 | 14,092 | 15,427 |
| Total |  |  |  |  |  |
| New South Wales | 5.187 | 5,927 | 7,462 | 9,561 | 11,372 |
| Victoria. . | 6,704 | 8,084 | 9,882 | 11,209 | 12,120 |
| Queensland | 1,551 | 1,752 | 2,116 | 2,194 | 2,824 |
| South Australia | 962 | 1,134 | 1,443 | 1,763 | 2,228 |
| Western Australia | 505 | 553 | 662 | 1,000 | 1,250 |
| Tasmanis | 354 | 472 | 42 I | 549 | 640 |
| Australia | 15.263 | 17,922 | 21,986 | 26,276 | 30,434 |

3. Percentage of Children on Total Number of Employees.-. Iurenile employment in factories reached its maximum in $1935-36$ when the numbers were: Males 15.007 and females 15,427, compared with 12,582 males employed in 1926-27 and 14,092 females in 1934-35, the previous highest points. The increases were general in most of the industries employing child labour, the most notable advance being made by male employees in Class IV.-Industrial Metals, etc.
PERCENTAQE OF CHILDREN ON TOTAL NUMBER OF FACTORY EMPLOYEES.

| State. | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| New South Wales | $\stackrel{\%}{\%}$ | $\begin{gathered} \% \\ 4.28 \end{gathered}$ | $\begin{gathered} \% \\ 4.84 \end{gathered}$ | $\%$ 5.46 | $\begin{gathered} \% \\ 5.89 \end{gathered}$ |
| Victoria. | $5 \cdot 23$ | 5.60 | 6.32 | 6.61 | 6.61 |
| Queensland | 4.33 | 4.69 | 5.28 | 5.10 | 6.26 |
| South Australia | 4.04 | 4.30 | 4.89 | 5.26 | 5.79 |
| Western Australia | 3.77 | 3.73 | 4.10 | 5.63 | 5.95 |
| Tasmania | 3.93 | 5.11 | 4.30 | 5.20 | $5 \cdot 52$ |
| Australis | 4.53 | 4.83 | $5 \cdot 42$ | 5.84 | 6.18 |


#### Abstract

4. Industries Employing Child Labour.-The omployment of children is practically oonfined to a limited numbor of industries, the most important of which are specified in the next table, which shows the average number employed in 1935-36:-


CHILDREN EMPLOYED.-VARIOUS INDUSTRIES, 1935-36.

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 Acto. These Acts, while laying down general principles, leave to the wages tribunals the aotual determination of the conditions under which apprentices may be employed.

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

Note. -In all tables relating to Salaries and Wages paid in Factories the amounte given are exclusive of sums drawn by working proprietors.

1. General.-The importance of the manufacturing industries of Australia is indicated by the fact that the total value of the output for $1935-36$ was $£_{414}, 688,455$, of which amount the sum of $£ 238,974,797$ represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and $£_{13,276,295}$ 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, "viz., $£ 162,437,363$, 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 1935-36 was $£ 82,098,288$. This figure which is exclusive of amounts drawn by working proprietors shows an increase of $£ 9,273,739$, or 12.7 per cent., as compared with the total for the previous year.
2. Salaries and Wages Paid.-(i) Total Amount, 1935-36. The total amount of salaries and wages paid in the year 1935-36 in various classes of factories in each State is shown in the following table:-

SALARIES AND WAGES PAID IN FACTORIES, 1935-36.


- (ii) Totals and Averages, 1931-32 to 1935-36. The following statement shows the total amount of salaries and wages paid, and the avorage amount paid per employee in each State, for the years 1931-32 to 1935-36. The average wage paid is not comparable with that shown in similar tables in Official Year Books issued prior to No. 23, 1930,
on account of the change in the method of computing the aterage number of hands employed as explained earlier. The figures are evclusive of working proprietors and of the amounts drawn by them :-

> SALARIES AND WAGES PAID IN FACTORIES.-TOTAL AND AVERAGE PER ANNUM PER EMPLOYEE.

| Year. | Particulars. | .S.W. \| Victo | S. Aust. W. | Australla. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\pm \quad 1 \begin{aligned} & \text { 1 }\end{aligned}$ | L | £ |
| $193 \mathrm{t}-32$1932-33 |  |  |  |  |
|  | Average per employee | 188.67 160.15 180.57 | 167.95 186.23 166.76 |  |
|  | Total amount paid | 23,782,84821,218,271,6,321,02114, $36,8572,541,42811416,01159,416,436$ |  |  |
| 1932-33 | Average per ermployee | 179.49 1 $154.50^{\prime} \quad \mathbf{1 7 6 . 8 2}$, | 165.24 182,141 162.85 | 168.19 |
| 1933-34 | Total amount paid | $25,748,547,22,851,6496,995,340$ 4, 615,081 |  |  |
|  | A verage per employee | 174.23 153.62 182.82 | 163.98 IS土.03 160.58 | $766.3^{5}$ |
| 1934-35 | Total amount paid . | 29,514,013 $25,275.0147,889,535$ (5, | $5,433,531,3,111,2391$, | 72,824,549 |
|  | Average per employee | $175.22 \quad 156.33 \quad 192.38$ | 169.22 155.05 160.36 | 169.34 |
| 1935-3 | Total anount paid . | 33,314 534 $28.4560285 .39+9096,375.3543 .703 .9951,853468182,098288$ |  |  |
|  | Averare per employce | $\begin{array}{llll}178.66 & 162.28, ~ 194.66\end{array}$ | 172.21. 187.09: 168.33 | 173.65 |

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carriod on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VIII., comprising a heavy percentage of women and children. The highest average wages per employee in 1935-36 were paid in Queensland, followed by Western Australia.

The average rate of salaries and wages reached its maximum in $1927-28$ when it amounted to $£ 212.12$. After that year there was an almost continuous decline to 1933-34 when the average rate dropped to $£ 166.36$. The figure has risen slightly in each of the last two years.
(iii) Earnings of Males and Females, 1935-36. The following table shows the approximate amount paid in salaries and wages to males and females in each class of industry in each State in the year 1935-36:-
salaries and wages.-male and female factory employees, 1935-36.


## SALARIES AND WAGES.-MALE AND FEMALE FACTORY EMPLOYEES. 1935-36-continued.

| Class of Industry. | N.S.W. | Victoria. , Q'land. | 8. Aust. | W. Aust. | Tas. | Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Females.

(iv) Total and Average Earnings of Males and Females, 1931-32 to 1935-36. Particulars for the last five years are given in the table hereunder :-

SALARIES AND WAGES.-MALE AND FEMALE FACTORY EMPLOYEES.

|  | Particulars. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Males. |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 1932-33. | Armount paid Per cent. on total Average per employee $£$ | $20,099,4561$ 84.51 213.72 | $16,597,017$ 78.19 194.25 | $5,736,126$ 90.75 201.02 | $3,709,236$ 89.66 188.62 | $2,270,9031$ 89.36 208.051 | $1,253,095$ 88.49 188.75 | $\begin{array}{r} 49,665,833 \\ 83.59 \\ 202.51 \end{array}$ |
| 2933-34. | Amount paid Per cent. on total A verage per employee A | $21,885,356$ 85.00 206.98 | $18,009,598$ 78.81 197.45 | $6,353,917$ <br> 90.83 <br> 208.03 | \|r $\begin{array}{r}\text { 4, } 70,047 \\ 90.36 \\ 185.58\end{array}$ | $2,475,698$ 89.1 206.271 | $1,315,417$ 88.79 182.05 | $54,210,033$ 84.12 899.32 |
| 1934-35. | Amount Paid Per cent. on total Average per employee $£$ | $25,215,937$ 85.44 208.57 | 20,036,314 79.27 193.31 | $7,184,443$ 91.06 219.03 | $1,937,285$ 90.87 190.22 | $\left\lvert\, \begin{gathered} 2,806,476 \\ 90.20 \\ 250.66 \end{gathered}\right.$ | $\begin{array}{r} 1,429,620 \\ 89.28 \\ 183.68 \end{array}$ | $\begin{array}{r} 6 x, 610,075 \\ 84.60 \\ 202.48 \end{array}$ |
| 1935-36. | Amount paid Per cent. on total A verage per employce $£$ | 28,576 85 858 212.35 | 22,755111 79.97 198.85 | $7,65+082$ 9 I .18 225.90 | $\begin{array}{r}5,810399 \\ 91.1 \\ 193.56 \\ \hline\end{array}$ | $\begin{array}{r}3.3535261 \\ 90.54 \\ 212.761 \\ \hline\end{array}$ | $\begin{array}{r}1,652851 \\ 89.18 \\ 190.86 \\ \hline\end{array}$ | $\begin{array}{r} 69,802,171 \\ 85.02 \\ 206.55 \end{array}$ |

salaries and wages.-male and female factory employeescontinued.

| Particulars. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FEMALES. |  |  |  |  |  |  |  |
|  | \| ${ }^{\text {a }}$ \| |  |  |  |  |  |  |
| 1931-92. Amount paid ..s | 3,492,044 | 4,348,69I | 536,981 | 392,418 | 259,445 | 164,970 | $\begin{array}{r} 9,194,549 \\ 16.44 \\ 94.18 \end{array}$ |
| Per cent. on total ... | 15.35 | 22.35 | 8.68 | 10.36 | II. II | $11.65$ |  |
| A verage per employee 8 |  | 94.43 | 81.6I | 81.2I, | $92 \cdot 20$ | 83.11 |  |
| 1932-93. Amount paid | 3,683,392 | 4,621,254 | 584,895 | 427,62 1 | 270.525 | 162,916 | $\begin{array}{r} 9.750,603 \\ 16.41 \end{array}$ |
| Per cent. on total ... | 15.49 | 21.81 | 9.25 | 10.34 | 10.64 | 11.51 |  |
| Average ner employee 5 | 95.78 | 89.071 | 81.08 | 79.62 | 89.05 | $79.24$ | 90.27 |
| 1933-34. Amount paid ..E. | 3,863.191 | 4,842,05I | 641,423 | 445,034, | 276.842 | 166,086 | $10,234,627$ |
| Per cent. on total .. | 15.00 | 21.19 | 9.17 | 9.64 | 10.06 | 11.2I | $15.88$ |
| Average per employee | 91. 88 | 88.54. | 82.77 | 78.43 | 86.43 | 8I.41 | 86.69 |
| 1934-35. Amount paid . . | 4,298,076 | 5,238,700 | 705,092 | 496,2.46 | 304,763 | 171,597 | 11,214,474 |
| Per cent. on total .. | 14.56 | 20.731 | 8.94 | 9.13 | 9.80 | 10.72 | 15.40 |
| Average per eraployee $f$ | 90.40 | 90.27 | 84.51 | 80.64 | 87.30 | 77.93 | $89.17$ |
| 1935-36. Amount paid . . | $4.738,33^{2}$ | 5,700,917 | 740,8 27 | $567.955$ | 350,469 | 200,617 | 12,296,117 |
| Per cent. on total $\quad$. | 14.22 | $20.03$ | 8.8= | 8.86 | 9.46 | 10.82 | 14.98 |
| Average pet employee s | 91.30 | $93 \cdot 58$ | 85.8 c | 80.70 | 86.84 | $85 \cdot 33$ | 91.19 |

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

## SALARIES AND WAGES.-MANAGERS, OVERSEERS AND OTHER FACTORY EMPLOYEES, AUSTRALIA, 1935-36.

| Class of Industry. | Salaries and Wages Paid to- |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Managers, Overseers, Accountants and Clerks. |  | All Other Employees. |  | All Employees. |  |  |
|  | Males. | Femaies. | Males. | Females. | Males. | Femalea. | Total. |
| 1. Treatment of Nonmetalliferous Mine and Quarry Products |  | f 15,092 | ¢ 1,304, 837 | \& $\begin{aligned} & \\ & \\ & 565\end{aligned}$ | ( $\begin{gathered}\text { ¢,526,738 } \\ \end{gathered}$ | f 15,657 | 6 1,542,395 |
| II. Bricks, Pottery, Glass, de. | 280,680 | 24,025 | 2,010,888 | 2.1,935 | 2,291,568 | 48,960 | 2,340,528 |
| III. Chemicals, Dyes, Explosives, Paint, Oils and Grease | 616,861 | 10S,524. | 1,877,946 | 339,124 | 2,494,807 | 447,648 | 2,942,455 |
| IV. Industrial Metals, Machines, Implements and Conveyances | 3,220,379 | 332,030 | 23,956,298 | 328,025 | 27,176,677 | 660,055 | 27,836,732 |
| V. Precious Metals, Jewellery and Plate | 44,647 | 9,904 | 392,512 | 25,856 | 437,159 | 35,760 | 472,919 |
| VI. Textiles and Textile Goods |  | 129,797 | 2,417,199 | 2,108,823 | 3,011,893 | 2,238,620 |  |
| vII. Skins and Leather . | 184,553 | 129,797 23,543 | -1,287,192 | 164,477 | 1,475,745 | $2,238,620$ 188,020 | 1,659,765 |
| VIII. Clothing .. | 517.179 | 307,904 | 2,842,369 | 4,899,965 | 3:359,548 | 5,207,869 | 8,567,417 |
| IX. Food, Drink and Tobacco | 2,458,285 | 348,625 | 9,489,850 | 1,471,788 | 11,948, 135 | I, 820,4 13 | $13,768,548$ |
| I. Woodworking and Hasketware .. | $2,45,28$ 504,524 | 52,831 | 4,061,448 | 14,569 | $1,948,135$ $4,565,972$ | 67.400 | 4,633,372 |
| X1. Furniture, Bedding, |  | 37,750 | $4,061,448$ $1,644,7+5$ | 162,562 | 1,813,978 | 200,312 | 2,014,290 |
| XII. Paper, Stationery, Printing, Bookbinding, \&c. | 1,001.501 | 229,333 | $1,644: 74$ <br> $4,612,425$ | 750,895 | 1,813,978 | 980,228 | 6,594,154 |
| XIII. Rubber $\quad$. | 226,870 | 32,519 | 796.228 | 163,691 | 1,023,107 | 196,2 10 | 1,219,317 |
| XIV. Musical Instruments | 12,292 | 2,99I | 55,555 | 3,854 | 67,347 | 6,845. | 74,69 2 |
| XV. Miscellaneous 1roducts | 132,422 | 27,865 | 583,556 | 126,275 | 715,978 | -154,140 | 870, I 18 |
| Power .. | 503,224 | 26.862 | 1,779,869 | I, i 18 | 2,283,093 | 27,980 | 2,311,073 |
| Total | 10,689,254 | 1,709,595 | 59,112,917 | 10,586,522 | 69,802,171 | 12,296,117 | 82,098,288 |
| Average paid per employee | 335.91 | 126.35 | 193.11 | 87.27 | 206.5 | 91.19 | 173.65 |

3. Value of Power, Fuel and Light Used.-(i) Total Amount, 1935-36. The expenditure by factories on power, fuel and light is of considerable importance; in 1935-36 it amounted to $£_{13,276,295}$, an increase of $£ 938,088$ 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 1935-36:-

VALUE OF POWER, FUEL AND LIGHT USED(a) IN FACTORIES, 1935-36.

(a) Including lubricants and water.
(ii) Total Amount according to Sources, 1935-36. The following table shows the value of power, fuel and light used in factories in each State during the year 1935-36 distributed amongst the various sources :-

VALUE OF POWER, FUEL AND LIGHT USED IN FACTORIES, 1935-36.

(a) Including Other.
(b) Not a vailable, included with Coke.
(iii) Total Amount, 1931-32 to 1935-36. The next table gives the sums expended on power, fuel and light during the last five years :-

VALUE OF POWER, FUEL AND LIGHT USED IN FACTORIES.

4. Value of Materials Used.-(i) Total Amount, 1935-36. 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 1935-36 was £238,974,797, representing 57.63 per oent. of the value of the final output. (See par. 5.) The table hereunder shows the value of the materials used in various classes of industry in each State :-

VALUE OF MATERIALS USED IN FACTORIES, 1935-36.

|  | Class of Industry. | N.S.W. | Victoria, | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Treatment of Nonmetalliferous Mine | $£$ | $\pm$ | $\Sigma$ | $£$ | $\pm$ | £ | £ |
|  | and Quarry Products | 1,799,180 | S99,843 | 227,994 | 112,791 | 177,701 | 102,66 ${ }_{\text {i }}$ | 3,320,170 |
|  | Bricks, Pottery, Glass, etc. | 787,142 | 403,060. | 48,799 | 130,459 | 99,8131 | 19,102! | I,488,375 |
|  | Chemicals, Dyes, Explosives, Paint, Oils and Grease . . | 6,357,091 | 4:491,536 | 430,84. | 1,071,929 | 1,101,023 | 105,272 | 13,587,695 |
|  | Industrial Metals, Machines, Implements and Conveyances | 33,149,593 | 141,403. | 472,501 | 7,646,452 | 1,201,486 | 1,130,41S | 55,7+1,853 |
|  | Precious Metals, Jewellery and Plate | 133,008 | 420,311 | 7,659 | 17,631 | 6,785 | 412 | 585,806 |
|  | Textiles and Textile Goods | 4,938,182, | 7,385,533. | 502,686 | 879,038. | 379,131 | 448,314. | $14,532,88_{4}$ |
| VII. | Skins and Leather | 4,042,562, | 2,847,625 | 1,362,751 | 117,629 | Ir 6,097 | 8,530 | 8,495,194 |
| VIII. | Clothing | 5:580,110 | 8,976,122 | 1,014,170 | 463,073 | 392,7521 | 71,548. | 16,497,775 |
|  | Food, Drink and Tobacco | 29,205,968 | I,202,570,2 | 1,605,632 | $6,932,486$ | 4,223,163 | 1,765,937 | 94,935,756 |
|  | Woodworking and Basketware .. | 3,873,225 | 2,126,359 | 1,993,113 | 915,517 | 781,539 | 343,622 | 10,029,375 |
| XI. | Furniture, Bedding, etc. | 1,918,265 | 1,198,327. | 382,390 | 265,924 | 232,548 | 42,403 | 4,039,857 |
| XII. | Paper, Stationery, Printing, Bookbinding, etc. | 3,714,368' | 3.321,062' | 549,213 | 433,037 | 292,669 | 97,060 | 8,407,409 |
| XIII. | Rubber .. | 1,613,619 | 1,572,955 | 89;422 | 30,022, | 15,886 | 6.777 | 3,328,681 |
| XIV. | Musical Instruments | 37,555. | 7,359 | 2,137 | 154 | 642 |  | 47,847 |
|  | Miscellaneous Pro- ducts | 853,713 | 776,629! | 40,530 | 77,039 | 54, 77 | 23,888 | 1,825,973 |
| $\mathbf{X V I} .$ | Heat, Light and Power .. | 956,740 | $723,465 \text {. }$ | 1)1,500 | $172.569$ | 96,796 | 29,077 | 2,110,147 |
|  | Total | '98,950,321'7 | ,494,1593 | ,901, $3 \mathrm{HI}^{\prime}$ | 19,261,750 | 9,172,205 | 4,195,021 | 238,974,797 |

(ii) Total Amount, 193I-32 to 1935-36. The following table gives the value of materisls used in factories for the last five years :-

VALUE OF MATERIALS USED IN FACTORIES.

| Year. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | £ | $\pm$ | £ | $\pm$ | £ | £ | $\pm$ |
| 1931-32 | 63,556,701 | 52,864,198 | 24,015,316 | 11,581,708 | 6,017,750 | 3,163,572 | 161,199,245 |
| 1932-33 | 70,084,956 | 58,081,097 | 24,772,613 | 12,321,268 | 6,667,618 | 3,220,996 | 175,148,548 |
| 1933-34 | 77,330,401 | 61,224,916 | 27,758,597 | 13,450,771 | 6,791,684 | 3,270,895 | 189,827,264 |
| 1934-35 | 87,096,873 | 65,096,374 | 30,346,510 | 15,275,492 | 7,654,382 | 3,577,386 | 209,047,017 |
| 1935-36 | 98,950,32 | 76.494.159 | 30.901 .341 | 10.261,750 | 9,172,205 | 4,195,021 | 238,974,797 |

5. Total Value of Output.-(i) Total, 1935-36. The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1935-36 is shown in the following table. The figures given represent not only the increase in value due to the process of manufacture, but include also the value of the raw materials, and the power, fuel and light used. The difference between the sum of the values of the materials and the fuel and light used, and the toial output (ses par. 6) is the real value of factory production.

## TOTAL VALUE OF OUTPUT OF FACTORIES, 1935-36.

| Class of Industry. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Treatment of Non- | £ | £ | £ | $£$ | £ | $\pm$ | $\pm$ |
| ducts | 3,712,195: | 2,308,109 | 585,218 | 356,260 | 474,885 | 356,945 | 7,793,612 |
| II. Bricks, Pottery, Glass, etc. <br> III. Chemicals, | 3.323,689 | 1,878,773 | 297,804 |  | $3^{82,462^{\prime}}$ | $71,978$ | 6,429,484 |
| Explosives, Paint, <br> Olls and Grease | 11,929,827 | 7,850,28. | 766,351 | 1,685,9:7. | 1,143,549. | 168,721 | 23,544,659 |
| IV. Industrial Metals, Machines, Implements and Conveyances | 57,776,982 | 22,565,640 | $\frac{1}{\stackrel{1}{\prime}}$ | $2,653,502$ | $168,4602$ | $, 658,753$ | $4,905,404$ |
| V. Precious Metals, Jewellery and Plate .. |  | $904,4^{8}$ | $42,619$ | 56,174 | 26,342 |  |  |
| VI. Textiles and Textile |  |  | 2,619. | 1,137,295 | -6,34- | ,514 |  |
| VII. Skins and Leather | 5,402,5861 | $13,087,825$ $4,257,914$ | 1,657,444 | 1,1 203,807 | 190.135 | 15,179 | 11,726.065 |
| VIII. Clothing <br> 1X. Food, Drink and | 10,518,907 | 16,123,208, | 2,016,142 | 1,074.727 | 872,891 | 162,422i | 30,708,297 |
| Tobacco <br> X. Woodworking and | 42,792,046! | 42,817,086 ${ }^{1}$ | 27,860,778. | 9,398,397 | $6,347,980,2$ | 5,56,919 | 1,773,206 |
| Basketware <br> XI. Furniture, Bedding, etc. | 6,339,862 | 4,290,263, | 3,465,351 | 1,399,655 | 1,538,091, |  | $17,789,711$ |
| XII. Paper, © Stationery, Printing, Bookbindiug, etc. | $3,391,256$ $0,011,693$ | 2,448,374 | $768,164!$ $1,676,233$ | +96.246 $1,090,236$ | $435,694$. 883,521 |  | $7,639,430$ $20,768,599$ |
| XIII. Rubler | $9,011,693$ $2,456,666$ | $\begin{gathered} 7,725,011 \\ 3,047,269 \end{gathered}$ | $1,676,233$ 265,045 | $1,090,236$ 66,510 | 883,521 $38,6 \pm 51$ | $\begin{gathered} 411,905 \\ 19,553 \end{gathered}$ | $\begin{array}{r} 20,798,599 \\ 5,803.658 \end{array}$ |
| XIV. Musical Instruments <br> XV. Miscellaneous Pro- | 127,532! | 33,078 | 12,757 | 1,755 | 9,027 | $\ldots$ | 184, 149 |
| XVI. Heat, light and Power .. | $\begin{aligned} & 1,791,976 \\ & 7,432,643 \end{aligned}$ | $\begin{aligned} & 1,522,372 \\ & 3,183,472 \end{aligned}$ | $\begin{array}{r} 106,3 \times 6 \\ 1,308,2 \pm 8 \end{array}$ | $\begin{array}{r} 166,6+3 \\ 1,643,59 \end{array}$ | $\begin{array}{r} 114,498 \\ 1,087,135 \end{array}$ | $\begin{array}{r} 49,435 \\ 558,842 \end{array}$ | $\begin{array}{r} 3,751,245 \\ 15,213,459 \end{array}$ |
| Total | $\mathrm{r} 74,693,76 \mathrm{t} \mid$ | 34,043,170 | 7,664,810,3 | $1,904.09 \mathrm{I} \mathrm{I}$ | $7,5 \geq 8,741,8$ | $, 853,882$ | $414,688,455$ |

(ii) Total $1931-32$ to 1935-36. The following statement shows the value of output of factories in each State in the five years ended 1935-36:-

TOTAL VALUE OF OUTPUT OF FACTORIES.

6. Value of Production.-(i) Total in Classes, 1935-36. The value of production for any industry was defined by the Conference of Statisticians at Sydney in 1925 as " the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production."

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fucl, 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 £8,733,892 for 1935-36. Many miscellaneous expenses, also, such as insurance and advertising, have not been taken into account. Hence, it must not be inferred that when wages and salaries are deducted from value of production, the whole of the "surplus" is available for interest and profit.

The following table shows the value of production in 1935-36 in each State for the various olasses of factories:-

VALUE OF PRODUCTION, 1935-36.

(ii) Total and Averages, 1931-32 to 1935-36. The value of production and the amount per employee and per head of population are shown in the following table for the years specified :-

## FACTORIES.-VALUE OF PRODUCTION.

| Year. | N.S.W. | Vlctoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. | Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value. |  |  |  |  |  |  |
|  | E | E | £ | £ | £ | £ | £ |
| 1931-32 | 46,653,481 | 37,819,628 | 12,133,356 | 6,961,348 | 4,605,134 | 2,808,383 | 110,981,830 |
| 1932-33 | 49,569.430 | 41.081,702 | 12,756,837 | 7,854,500 | 5,061,842 | 2,879,437 | 119,203,148 |
| 1933-34 | 54,042,154 | 44,201,645 | 13,712,508 | 8,641,477 | 5,444,280 | 3,049,851 | 129,091,915 |
| 1934-35 | 61,430,068 | 48,762,591 | 14,623,319 | 9,557,113 | 6,284,923 | 3,158,146 | 143,816,160 |
| 1935-36 | 69,469,955 | 54,043,690 | 15,682,944 | 11,669,705 | 7,504,209 | 4,066,860 | 162,437,363 |

## Per Employee( $a$ )

|  | $\boldsymbol{E}$ | $\pm$ | ¢ | £ | 1 | £ | $\pm$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1931-32 | 369 | 295 | 339 | 292 | 344 | 312 | 330 |
| 1932-33 | 358 | 284 | 34 I | 298 | 342 | 312 | 321 |
| 1933-34 | 351 | 283 | 342 | 293 | 337 | 312 | $3 \times 8$ |
| 1934-35 | 351 | 287 | 340 | 285 | 354 | 299 | 320 |
| 1935-36 | 360 | 295 | 348 | 303 | 357 | 351 | 330 |

Per Head of Population.

|  |  | £ |  | $\pm$ | ! | $\pm$ |  | £ | E | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1931-32 | $\ldots$ | 18.17 |  | 20.96 | 13.04 | 12.07 |  | 10.62 | 12.42 | 16.94 |
| 1932-33 | . | 19.13 |  | 22.64 | 13.56 | 13.55 |  | 11. 59 | 12.63 | 18.05 |
| 1933-34 | . | 20.68 |  | 24.22 | 14.43 | 14.84 |  | 12.36 | 13.32 | 19.40 |
| 1934-35 | . | 23.62 | , | 26.55 | 15.22 | 16.36 |  | 14.18 | 13.78 | 21.46 |
| 1935-36 | . | 26.15 | ; | 29.32 | 16.13 | 19.9. |  | 16.76 | 17.66 | 24.06 |

(a) Including Worblng Proprietors.
7. Value of Output and Cost of Production.-As the total value of the output for Australia for $1935-36$ was estimated at $£_{414,688,455}$, there remained, after payment of $£_{238,974,797}$, the value of the materials used, of $£ 82,098,288$ for salaries and wages, and of $£ 13,276,295$ for fuel, the sum of $£ 80,339,075$ 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 1935-36:-

FACTORIES.-VALUE OF OUTPUT AND COST OF PRODUCTION, 1935-36.


Value and Cost, ett.

|  | £ | £ | £ | £ | f |
| :---: | :---: | :---: | :---: | :---: | :---: |
| New South Wales | 98,950,321 | 6,273,485 | 33,314,534 | 36,155,42I | 174,693,761 |
| Victoria | 76,494,159 | 3,505,32I | 28,456,028 | 25,587,662 | 134,043,170 |
| Queensland | 30,901,341 | 1,080,525 | 8,394,909 | 7,288,035 | 47,664,810 |
| South Australia | 19,261,750 | 972,636 | 6,375,354 | 5,294,351 | 31,904,091 |
| Western Australia | - 9,172,205 | 852,327 | 3,703,995 | 3,800,214 | ${ }^{1} 7,528,741$ |
| Tasmania | 4,195,02I | 592,001 | 1,853,468 | 2,213,392 | 8,853,882 |
| Australis | \|238,974,797 | 13,276,295 | 82,098,288 | 80,339,075 | 414,688,455 |

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

FACTORIES.-VALUE OF OUTPUT AND COST OF PRODUCTION, 1935-36.continued.

| State. | Materials Used. (a) | Power, Fuel and Light. <br> (b) | Salaries and Wages. | All other Expendlture, Interest, Profits, etc. | Total Value of Output. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Peroentage of Costs, efto, on Total Value. |  |  |  |  |  |
|  | \% | \% | \% | $\%$ | \% |
| New Sonth Wales | 56.64 | 3.59 | 19.07 | 20.70 | 100.00 |
| Victoria .. | 57.07 | 2.61 | 21.23 | 19.09 | 100.00 |
| Queensland | 64.83 | 2.27 | 17.61 | 15.29 | 100.00 |
| South Australis | 60.37 | 3.05 | 19.98 | 16.60 | 100.00 |
| Western Australia | 52.33 | 4.86 | 2 L .13 | 21.68 | 100.00 |
| Tasmania . | 47.38 | 6.69 | 20.93 | 25.00 | 100.00 |
| Australia | 57.63 | 3.20 | 19.80 | 19.37 | 10000 |

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

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

r. 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 1935-36 :-

Value of land, buildings, plant and machinery, 1935-36.

| Value of- | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmania. | Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $¢$ | £ | $£$ | $\pm$ | £ | $£$ | $\pm$ |
| Land and bulldings | 49,494,222 | 37,678,298 | 10,514,513 | 8,268,807 | 5,978,111 | 2,675.951 | ${ }_{1}^{1114,609,902}$ |
| Plant and machlnery | 51,964,98z | 34,194,608 | 17,736,543 | 9,280,335 | 6,063,901 | 5,990,722 | 125,231,091 |
| Total | 101,459,204! | 71,872,906 | 28,251,056 | 17,549,142 | 12,042,012 | 8,666,673 | $\left.\right\|_{239,840,993}$ |

The vakues 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 ahown in the table consequently do not represent the actual amount of capital invested in the items specified.
2. Value of Land and Buildings.-(i) Total, Australia, 1931-32 to 1935-36. The appended table showe for Australia as a whole the approximate value of land and buildings occupied in connexion with manafacturing industries from 1931-32 to 1935-36 inclusive :-

## VALUE OF LAND AND BUILDINGS.-AUSTRALIA.

| Class of Industry. | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1435-36. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\varepsilon$ | $\boldsymbol{5}$ | E | $\Sigma$ | $\pm$ |
| 1. Treatment of Nonmetalliferous Mine and |  |  |  |  |  |
| Quarry Products .. | 2,392,522 | 2,396,967 | 2,415,120 | 2,409,200 | $2.412,145$ |
| II. Bricks, Pottery, Glass, | 1,992,755 | 2,214,761 | 2,376,697 | 2,558,793 | 2,706,575 |
| III. Chemicals, Dyes, Explosives, Paint, Oils and Grease | 5,779,483 | 5,832,064 | 5.903,867 | 6,129,52! | 6,398,332 |
| IV. Industrial Metals, Machines, Implements |  |  |  |  |  |
| and Conveyances 0 . | 25,582,740 | 25,632,777 | 25,877,989 | 26,718,722 | 27, 373.26I |
| V. Precious Metals, Jewellery aud Plate | 510,746 | 490,5 I I | 518,293 | 536,745 | 561.735 |
| VI. Textiles and Textile Goods | 4,739,366 | 4,993,710 | 5,106,496 | 5,169,116 | 5.447,503 |
| VII. Bkins and Leather | 1,778,219 | 1,768,577 | 1,789,880 | 1,790,607 | 1,833.335 |
| VIII. Clothing . . . | 9,334,049 | 8,894,673 | 9,059,219 | 9,571,442 | 9,750,233 |
| IX. Fond, Drink and Tobacco | 26,676,269 | 26,645,408 | 27,006,548 | 27,949,38¢ | 28.929.977 |
| X. Woodworking and Basketware | 3,601,684 | 3,506,606 | 3,486,892 | 3, $, 9.94,16 t$ | 3,769,305 |
| XI. Furniture, Bedding, etc. | 1,978,384 | 1,869,195 | 1,963,269 | 2,056,015 | $2,196,78=$ |
| XII. Paper, Stationery, Print- | 9,187,481 | 9,048,534 | 9,093,698 | 9,221,90¢ | 9.564,871 |
| XIII. Rubber . . . | 2,078,335 | 1,853,590 | 1,893,051 | 1,849,49 | 1,892,048 |
| XIY. Musical Instruments . . | 313.313 | 212,112 | 144,215 | 122,88: | 115.948 |
| XV. Miscellaneous Products.. | 1,028,693 | 1,014,793 | 1,063,804 | 1,114,681 | 1.213 .697 |
| XVI. Heat, Light and Power. . | 9,616,285 | 9,462,594 | 9838,768 | 9,947,961 | 9,004,655 |
| Total | 06,590,324 | 105.836 .872 | 7,537,806 | 10,840,65? | $14+600.902$ |

(ii) Value in each Stale, 1935-36. The following table gives similar information for each State for 1935-36:-

VALUE OF LAND AND BUILDINGS, 1935-36.

(iii) Value in each State, 1931-32 to 1935-36. The total value of factory land and buildings for each year from 1931-32 to 193.5-36 is given hereunder :-

Value of land and buildings.


Prior to 1929-30 the increase in the value of land and buildings was uninterrupted, rising from $£ 23$ million in 1903 to frr 8 million in 1929-30, a growth of $£ 95$ million in 27 feare During the three years ending 1932-33, however, there was a decline of £i2 million to $£ 105.8$ million, but during the next three years the value had risen to $£ 114.6$ million.
3. Value of Plant and Machinery.-(i) Total, Australia, 1931-32 to 1935-36. The following table shows for Australia the approximate value of plant and machinery used in faotories in each of the years specified :-

VALUE OF PLANT AND MACHINERY.-AUSTRALIA.

| Class of Industry. | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\Sigma$ | $\varepsilon$ | $\underline{1}$ | £ | £ |
| I. Treatment of Nonmetalliferous Mine and Quarry Products | 5,773,446 | 5,517,010 | 5,373,802 | 5,279,528 | 5,249,528 |
| II. Bricks, Pottery, Glass, etc. | 1,974,507 | 2,291,788 | 2,414,175 | 2,649,482 | 2,865,499 |
| II. Chemicals, Dyeb, Explosives, Paint, Oils and Grease | 5,729,195 | 5.537,025 | 5,356,426 | 5,638,866 | 5,722,327 |
| IV. Industrial Motals, Machines. Implements and Conveyances | 24,665,290 | 24,916,610 | 24,611,820 | 24,976, | 25,604.490 |
| V. Precious Metals, Jewel- |  |  |  |  |  |
| Vi. Textiles and Plate Textile Goods | 139.44 I | 141.446 | 148,402 | 162,129 | $175.88{ }_{4}$ |
| Fi. Textiles and Textile Goods | 5,638,054 | 5,743,596 | 5.751,145 | 5,799,227 | 6,052,307 |
| VII. Skins and Leather . . | 916,685 | 905.709 | 913.723 | 892,370 | 898,508 |
| VIIf. Clothing ${ }^{\text {JX. Food, Drink }}$ and To- | 2,211,284 | 2,054,915 | 2,061,074 | 2,180,610 | 2,256,669 |
| JX. Food, Drink and Tobacco | 28,176,453 | 27,618,639 | 27,305,642 | 29,207,778 | 30,041,612 |
| X. Woodworking and Basketware <br> XI. Furniture, Bedding etc. | $3,498,591$ 672,169 | 3.318,657 | 3.326,466 | 3,490,416 | 3,629.550 |
| Ing, Bookbiuding, etc. | 7,310,058 | -111.322 | 7,139,924 | 7,108,001 | 7.532,292 |
| XIII. Rubber ${ }^{\text {PIV }}$ | 2,029,401 | 1,749.634 | 1,710,597 | 1,639,724 | 1,464,225 |
| XIV. Musical Instruments ${ }^{\text {a }}$ | 162,496 | 93,230 | 33,582 | 24,209 | 18.157 |
| XV. Miscellaneous Products. . | 507,754 | 545,511 | 560,737 | 580,623 | 579,853 |
| IVI. Heat, Light and Power.. | 32,124,553 | 32,359.565 | 32,791,361 | 32,349,553 | 32,461,385 |
| Total .. | 121,529,377 | 120,549,857 | 120,208,128 | 122,640,955 | 125,231,091 |

The maximum amount invested in plant and machinery was $£ 127.6$ million in 1929-30. The amount derlined to $\mathrm{f}_{120.2}$ million during the next fonr years, but has since risen to $\mathrm{E}_{125.2}$ million.
(ii) Value in each State 1931-32 to $1935-36$. The following tablo shows the value of plant and machinery in each State during the last five years. It will be noted that the chief increases during the year $1935-36$ were recorded in New South Wales and Queensland:-

VALUE OF PLANT AND MACHINERY.

(iii) Value according to Industry, 1935-36. The following table shows the value of plant and machinery used in factories in each State during 1935-36, classified according to industry :-

VALUE OF PLANT AND MACHINERY.-1935-36.

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 1935-36. Information in respect of the industries in South Australia is not available and the particulars shown have been estimated from the rates experienced in the other five States.

## allowance for depreciation of land and buildings and plant AND MACHINERY.-1935-36.


(a) See par above,

## § 9. Individual Industries.

1. General.-The preceding pages afford a general view of the magnitude of industries in the sisteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed acoount in respect of all industries, particular industries, which are of special importance by reason of the employment which they provide for labour and capital or other featares of special interest, are dealt with hereunder. Where there are only one or two establishmente of a particular class in any State, returns of output are not published but are combined with some other factory group so that the operations of individual concerns will not be disclosed.

The figures presented hereafter show that practically all the industries reviewed have recovered from the depression of recent years.
2. Chemicals, Drugs and Medicines.-(i) Details for each State, 1935-36. This industry is the most important in Class IIT, and details for each State during the year 1935-36 are shown in the following table:-

CHEMICALS, DRUGS AND MEDICINES, 1935-36.

(a) Includes Explosives.
(ii) Total for Australia, 1931-32 to 1935-36. In the returns for Anstralia shown in the following table it will be seen that the industry has made consistent progress during each of the last four years :-

## CHEMICALS, DRUGS AND MEDICINES.-AUSTRAI.IA.

| Items. | $\dagger$ | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | . | 177 | 182 | 190 | 203 | 214 |
| Number of employees | .. ${ }^{\text {d }}$ | 3,295 | 3,524 | 3,852 | 4,251 | 4,619 |
| Average horse-power of engines used |  | 7.394 | 7,637 | 7,966 | 8,429 | 9,103 |
| Approx. value of land and buildings | £ | 1,300,194 | 1,297,851 | 1,350,0,42 | 1,435,705 | 1,556,254 |
| Approx. value of plant and machinery |  | -842,143 | 820,679 | 832,532 | 929,216 | 986,700 |
| Wages paid .. .. . |  | 501,671 | 613,279 | 651,557 | 713,018 | 786,211 |
| Value of fuel used | $\mathfrak{1}$ | 67,030 | 77,499 | 84,127 | 90,732 | 09.376 |
| Value of materials used |  | 2,045,829 | 2,121,117 | 2,287,226 | 2,441,380 | 2,751,056 |
| Total vaine of output |  | 4,112,452 | 4,251,625 | 4,828,851 | 5,171,339 | 5,723,675 |
| Value of production | $\underline{1}$ | 1,999,593 | 2,083,009 | 2,457,498 | 2,639,227 | 2,873,243 |

3. Soap and Candle Factories.-(i) Details for each State, 1935-36. The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained; the manufacture of soap is, however, the more important. The following table gives particulars of soap and candle factories in each State for the year 1935-36:-

SOAP AND CANDLE FACTORIES, 1935-36.


[^1](ii) Total for Australia, 1931-32 to 1935-36. The next table gives similar particularn for the last five years for Australia :-

SOAP AND CANDLE FACTORIES.-AUSTRALIA.

| Items. |  |  | 1931-32. | 2932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | .. | 68 | 64 | 71 | 67 | 66 |
| Number of employees |  |  | 2,106 | 2,010 | 1,985 | 2,044 | 2,183 |
| Average horse-power of | engines used |  | 2,579 | 2,453 | 2,537 | 2,443 | 3,05 1 |
| Appros. value of land and | d buildings | £ | 667,948 | 656,181 | 640,603 | 626,281 | 613,717 |
| Approx. value of plant a | nd machinery | £ | 617.932 | 618,337 | 373,905 | 530,298 | 514,845 |
| Wages paid .. |  | £ | 38.4,410 | 369,397 | 338,517 | 354,011 | 385.431 |
| Value of fuel ueed | . | £ | 72,439 | 62,545 | 58,741 | 56,774 | 76,340 |
| Value of materials used | . . | $\pm$ | 1,486,457 | 1,408.015 | 1,365,699 | 1, 4 +45.528 | 1,689.835 |
| Total value of output |  | $\pm$ | 2,875,670 | 2,664,778 | 2,696,606 | 2,917,802 | 3,107.553 |
| Value of production |  | $\pm$ | 1,316,774 | 1,194,218 | 1,272,166 | 1,415,500 | 1,341,378 |

(iii) Raw Material Used and Production, 1931-32 to 1935-36. The following statement shows the quantities of cortain raw material used and the production in soap and candle factories in Australia for the last five years :-

SOAP AND CANDLE FACTORIES.-RAW MATERIAL USED AND PRODUCTION, AUSTRALIA.


The output for the year 1935-36 comprised the following quantities of soap :Household, 73.122 ewt.; toilet, 104,709 cwt.; sand, $92,342 \mathrm{cwt}$. ; soft, $15,092 \mathrm{cwt}$; and other, 6,817 ewt.
4. Chemical Fertilizers.-(i) Details for each State, 1935-36. The following table gives particulars of the factories engaged in the manufacture of chemical fertilizers in each State during the year 1935-36. Details of the consumption, imports and exports of fertilizers will be found in Chapter XX.-Agriculture.

## CHEMICAL FERTILIZERS, 1935-36.

| Iteras | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 4 | 5 | 5 | 7 | 5 | 7 | 33 |
| Number of employees | 163 | 799 | 76 | 572 | 353 | 33 | 1,996 |
| A verage horse-power of engines used | 801 | 2,855 | 485 | 3,467 | 2,500 | 174 | 10,282 |
| Approximate vaiue of land and buildings .. £ | 82,210 | 499:199 | 14,053 | 211.957 | 523,924 | 47,293 | 1,378,636 |
| Approximate value of plant | 8,2,0 | 409:499 | 4,0.0 | 21.957 | 523,9-4 | 47,293 | 1, ,7, ${ }^{\text {, }} 36$ |
| and machiuery .. \& | 78,273 | 748,506 | 17,585 | $58 \mathrm{r}, 604$ | 668,796 | 32,349 | 2,127,113 |
| Wages paid $\quad$. | 40,101 | 177,984 | 15,327 | 113.429 | 87,782 | 7,429 | 4.2,052 |
|  | 9,128 | 37,689 | 1,275 | 23.119 | 16,794 | 671 | 88,676 |
| Value of materials used $\quad \underset{\sim}{x}$ | 289.177 | 920,679 | 147,223 | 494,460 | 810.152 | 64,860 | 2,726.551 |
| Total value of outpat | 466.367 | 1,384.582 | 214,347 | 751,630 | 996,958 | 92,157 | 3,906.04 1 |
| Value of production . £ | 168,062 | 426:214 | 65,849 | 234,051 | 170,012 | 26,626 | 1,090,314 |

(ii) Total for Australia, 1931-32 to 1935-36. The development of this industry since 193I-32 is set out hereunder:-

CHEMICAL FERTILIZERS.--AUSTRALIA.

| Items. |  | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 34 | 33 | 34 | 33 | 33 |
| Number of employees | . | 1,477 | 1,702 | 1,706 | 1,801 | 1,990 |
| A verage horse-power of engines used |  | 7,788 | 8,638 | 8,595 | 9,048 | 10,282 |
| Approx. value of land and buildings | £ | 1,325,207 | 1,398,489 | 1,446,410 | 1,365,737 | 1,378,636 |
| Approx. value of plant and machinery | $\boldsymbol{\Sigma}$ | 2,309,658 | 2,199,257 | 2,095,142 | 2,120,628 | 2,127,113 |
| Wages paid .. .. . | £ | 327,996 | 377,116 | 364,726 | 386,277 | 442,052 |
| Valie of frel used | E | 76,486 | 88,949 | 86,137 | 84,028 | 88,676 |
| Value of materials used | £ | 2,143,640 | 2,849,768 | 2,452,106 | 2,370,798 | 2,726,55 1 |
| Total value of output | £ | 3,152,111 | 4,028,984 | 3,577,732 | 3,440,860 | 3,905,041 |
| Value of production | f | 931,985 | 1,090,267 | 1,039,489 | 986,034 | 1,090,81.4 |

5. Agricultural Implement Works.-(i) General. The manufacture of agricultural implements is of particular 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 stripper-harvesters, header harvestere or reaper threshers, strippers, reapers and binders, stump-jump and other ploughs, harrows, disc and other cultivators, winnowers, corn-shellers and baggers, drills, kerosene and petrol engines, and other implements employed in agriculture. The stripper harvester, which combines the stripper with a mechanism for winnowing and bagging grain, is an Australian invention, and is universally employed in the larger wheat-growing areas.
(ii) Details for States, 1935-36. The following table gives details respeoting agricultural implement works in each State for the year 1935-36:-

AGRICULTURAL IMPLEMENT WORKS, 1935-36.

| Items. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. |  | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nuraber of factories |  | 23 |  |  |  | 8 | 2 | 43 |
| Nurmber of employees |  | 919 | 2,8281 | 398 | 828 | 76 | 4 | 5,053 |
| A verage horse-power of engines used |  | 874 | 3,590 | 364 | 1,236 | (a) | (a) $b$ | $b$ 6,142 |
| Approx. value of land and buildings |  | 110,603 | 290,084 | 27,644 | 141,211 | (a) | (a) ${ }^{\text {b }}$ | $b$ 608,679 |
| Approx. value of plant and machinery |  | 76,280 | 290,819 | 4S,833 | 181,435 | (a) | (a) $b$ | b 600,915 |
| Wages paid |  | 168,740 | 550,001 | 75,697 | 1125,274 | (a) | (a) | $b$ 936,350 |
| Value of fuel used | £ | 8,376 | 44,272 | 4,945 | 8,655 | (a) | (a) | $b$ 66,515 |
| Value of materials used | $\pm$ | 212,607 | 644,920 | 108,427 | 152,484 | (a) |  | b1,121,478 |
| Total value of output | £ | 484,309 | 1,445,497 | 242,670 | 327,830 | (a) |  | b2,528,088 |
| Value of production |  | 263,326 | 756,305 | 129,298 | 166,697 | (a) | (a) ${ }^{\text {a }}$ | b1,340,092 |

(a) Particulars not available for publication.
(b) Including Western Australia and Tasmania.
(iii) Total for Australia, 1931-32 to 1935-36. This industry declined considerably during the war years, but great progress was made thereafter. The fall in world prices of agricultural products resulted, however, in a considerable slackening in employment and output during the three years ended 1931-32. Despite the continuance of the low prices the industry has made progress during the past four years. Details for each of the last five years are as follows:-

## AGRICULTURAL IMPLEMENT WORKS.-AUSTRALIA.


6. Engineering Works.-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, and with one or two duplications of minor importance, the following figures may bo accepted as reasonably accurato for the engineering industry, excluding the marine and electrical branches :-

ENGINEERING WORKS, (a) 1935-36.

(a) Excluding marine and electrical.

In addition to engineering works which supply ordinary requirements, many ostablishments manufacture special classes of machinery and implements. The manufacture of mining, smelting and textile machinery and apparatus forms an important section of this industry.
7. Smelting, Converting, Refining and Rolling of Iron and Steel.-The extension of the classification noted in the preceding paragraph 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, springe, horseshoes, screws, lifts, tools, brickmakers' implements and oxy-acetylene welding. Partioulars for the year 1935-36 are as follows :-

## SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND <br> STEEL, 1935-36.


8. Extracting and Refining of Non-ferrous Metals and Alloys.-The following table gives particulars of metal extraction and ore reduction works, other than those connected with iron and steel. The classification of these works is not uniform throughout the

States, and the tabulation is somewhat unsatisfactory. The returns do not inolude particulars of plants used on mines :-
EXTRACTING AND REFINING OF NON-FERROUS METALS AND ALLOYS, 1935-86.


[^2]9. Railway and Tramway Workshops.-(i) Details for each State, 1935-36. The railway and tramway workshops which form an important item in Class IV. are chiefly State-owned institutions. The following table giving details concerning them includes, in addition, municipal establishments for manufacturing and repairing rolling-stock. Private institutions to the number of 7 in 1935-36 have, however, been excluded :-
TRAMCARS, RAILWAY ROLIING-STOCK AND CARRIAGES, ETC., (a) 1935-36.

(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 thia establishment are not included in any of the tables in this chapter.
(ii) Total for Australia, 1931-32 to 1935-35. The following table shows the development of railway and tramway workshops in Australia since 1931-32 :-

(a) Goverment and Municipal only.

The growth of the railway and tramway systems resulted in corresponding activity in workshops engaged in the manufacture or repair of rolling-stock, etc. The economic depression practically restricted the industry to repair work during recent years, but there was considerable expansion in 1935-36.
10. Motor Vehicles and Cycles.-The industries catering for the motor trade are tncluded in Class IV.-Industrial Metals, Machines, Implements and Conveyances. Retarns in regard to assembling and repairing are shown hereunder for the year 1935-36:-
ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1935-36.


Partioulars in regard to motor body building for the year 1935-36 are as follows :MOTOR BODY BUILDING, 1935-36.

| Items. | - N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Anatralia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sumber of factories | 48 | 73 | 25 | 12 | 22 | . | 180 |
| Sumber of employres ... | 1,23- | 3,671 | 370 | 6,474 | 256 | . | 12,005 |
| Average horse-jower of engines used | 666 | 1,941 | 222 | 3,652 | 160 | . | 6,64 I |
| approximate value of land and buildings | 201,208 | 50\%,700 | 57,232 | 349:502 | 60,502 |  | 1, 170,144 |
| Approximate value of plant and |  |  |  |  |  |  |  |
| machinery .. fi | 27,914 | 194,843 | 9,086 | 128,4 1 C | 14.356 | . | 374,575 |
| Fages paid | 218,679 | 735,419 | 63,702 | 1,215,049 | 43,919 |  | 2,276,768 |
| Failue of fuel used . . $\mathcal{E}$ | 4:367 | 16.56 I | I, 358 | 42,386 | 1,371 |  | 66,043 |
| Falue of materials used ¢ | 246,859 | 1,0.42,327 | 73:418 | 1,931,09: | 56,397 |  | 3,350,095 |
| Total value of output | 545,807 | 2,106.803 | 172,253 | 4,091,374 | 124,53.4 |  | 7,040,77 |
| Falue of production .. | $29+5$ SI | 1.047.913 | 97,477 | 12,117,90c | 66,766 | . | 3,624,637 |

The output of motor bodies for Australia is shown in the next table :-
MOTOR BODIES PRODUCED IN AUSTRALIA.

(a) Excluding Queensland.

The masimum number of moter bodies manufactured in Austrata was 88,876 recorded in 1926-27.
11. Electrical Installations, Cables and Apparatus.--(i) Details for each State, 1935-36. The following table shows particulars of this industry for each State during. the year 1935-36 :-

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS, 1935-36.

| Items. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 108 | 119 | 13 | 23 | 26 | 5 |  |
| Number of employees |  | 4,791 | 2,657 | 135 | 418 | III | 25 | 8,137 |
| Average horse-power of gines used | en- | 4,970 | 1,706 | 6.4 | 373 |  | 11 | 7,236 |
| Approx. value of land |  | 732,278 | 353,870 | 34,396 | 64,336 | 54,147 | 6,850 | 1,245,877 |
| Approx. value of plant | and | 443,524 | 170,484 | 6,469 | 28.74 I | $10,3^{85}$ | 901 | 660,507 |
| Wages paid | $\mathfrak{f}$ | 820,472 | 396,157 | 2S,077 | 59,480 | 18,222 | 3.358 | 1,325,736 |
| Value of fuel used | $\pm$ | 47,547 | 19,241 | 562 | 4,728 | 1,476 | 226 | 73,780 |
| Value of materials used | £ | 1,268,560 | 595.625 | 31,31r | 138,426 | 22.267 | 3.313 | 2,059,502 |
| Total value of out put | $\pm$ | 2,635,235 | 1,309,047 | 68,771 | 245,258 | 60,329 | 10,010 | 4,329,150 |
| Value of production | $\pm$ | 1,319,128 | 694,181 | 36,898 | 102, 101 | 37,086 | 6,471 | 2,195,868 |

(ii) Total for Australia, 1931-32 to 1935-36. The increased output of electrical energy in Australia during the past five years, referred to in par. 36 below, necessitated 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 supplies, and the result of its operations has been a remarkable development in the manufacture of electrical goods in Australia.

## ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS.-AUSTRALIA.

| Items. |  | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - - .- |  |  |  |  |  |  |
| Number of factorics |  | 2.48 | 246 | 275 | 230 | 294 |
| Number of emplovees |  | 4,356 | 5,005 | 5,774 | 7,098 | 8,137 |
| A verage horsc-power of engines used | $\cdots$ | 4,540 | 6,208 | 6,604 | 6,620 | 7,236 |
| Approx. value of land and buildings | £ | 1,082,892 | 1,063,843 | 1,122,33x | 1,168,474 | 1,245,877 |
| approx. value of plant and machinery | $\pm$ | 610,023 | 677,566 | 665,988 | 659,005 | 660,504 |
| Wages paid | £ | 701,213 | 847,839 | 931,727 | 1,130,683 | 1,325,736 |
| $V$ alue of fuel used | f | 49,083 | 54,62 5 | 63,881 | 67,565 | 73,780 |
| Value of materials used | $\pm$ | 1,057,189 | 1,145,850 | 1,383,137 | 1,716,974 | 2,059,502 |
| Total value of output | £ | 2,332,130 | 2,562,034 | 3,135,080 | 3,822,333 | 4,329,150 |
| Value of production | $\pm$ | 1,225,858 | 1,361,563 | 1,684,062 | 2,037,794 | 2,195,868 |

12. 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, however, a new classification of factories was adopted and "Wireless' Apparatus" was shown as a separate industry. The industry is confined, almost entirely, to the States of New South Wales and Victoria. The number of broadcast listeners' licences has increased from $33 \mathrm{I}, \mathrm{I} 28$ in 1930-3I to 938,297 in 1936-37, and this increase is reflected in the advancement of the industry during that period:-

| Items. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| Number of factories | $\cdots$ | 35 | 46 | 57 | $5{ }^{\text {n }}$ | 67 |
| Sumber of employees |  | 1,677 | 2,263 | 2,625 | 3,366 | 3,943 |
| Average horse-power of engines used |  | 396 | 467 | 498 | 89 | 1,336 |
| Approx. value of land and buildings | $\pm$ | 204,349 | 218,931 | 238,940 | 292,594 | 378,103 |
| Approx. value of plant and machinery | $\pm$ | 88,627 | 95,534 | 97,587 | 135,20 ${ }^{\text {d }}$ | 185,626 |
| Wages paid | $\pm$ | 200,759 | 271,710 | 295,792 | 400,78. | 493,314 |
| Value of fuel used | $\pm$ | 7,697 | 9,230 | 10,969 | 12,50: | 17.670 |
| Value of materials used | $\pm$ | 637,268 | 829,452 | 958,400 | 1,172,66: | 1,398,137 |
| Total value of output | $£$ | 1,023,916 | 1,357,822 | 1,589,093 | 1,859.05t | 2,243,159 |
| Value of production | £ | 378,951 | 519,140 | 619,724 | 673,88. | 827,352 |

13. Woollen and Tweed Mills.-(i) Details for each State, 1935-36. The manafacture of woollons 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 I 80I, when a few blankets were made by convicts, while manufacture in Victoria datee from 1867. The following table gives particulars for the year 1935-36:-

WOOLLEN AND TWEED (INCLUDING W00LSCOURING) MILLS, 1935-36.

| Items. |  | $\begin{gathered} \text { N.S.W. } \\ (a) \\ \hline \end{gathered}$ | Victoria. | Q'land. | S. Aust. (b) | W.A. | Tas. | Australls. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 20 |  | 3 | 9 | 6 |  |  |
| Number of employees |  | 6,494 | 10,085 | 472 | 899 |  | 1,534 | 19,693 |
| Average horse-power of | engines used | 9,233 | 18;927 | 739 | 2,447 | 6751 | 2,715 | 34,736 |
| Approx. value of buildings | land and | 712,624 | , 840 |  |  | 52,141 |  |  |
| Approx. value ' of | plant and | 712,624 | ,840 | 654 | 4 | $1{ }^{1}$ | 238,888 | 14 T |
| machinery .. | .. | 1,008,659 | 1,711,725 | 83,904 | 178,586 | 95,849 | 265,245 | 3,343,968 |
| Wages paid | £ | 847,160 | 1,351,049 | 56,212. | 116,219 | 33,383 | 208,700 | 2,612,723 |
| Value of fuel used | $\pm$ | 120,894: | 193,053 | 6,001. | 20,558 | 8,652 | 44,617 | 393,775 |
| Value of materials used | $\pm$ | 2,599,140 | 3,554,744 | 68,84 ${ }^{\text {I }}$ | 641,561 | 255,804 | 428,032 | 7,548,122 |
| Total value of ontput | $\pm$ | 4,3.43,383 | 5,936,927 | 167,298 | 836,133 | 332,688 | 928,638 | 12,545,067 |
| Value of production | $£$ | I,623,349 | 2,189,130 | 92,4561 | 174,014 | 68,232 | 455,989 | 4,603,170 |

(a) Woolscouring not included.
(b) Includes Fellmongery.
(ii) Total for Ausiralia, 1931-32 to 1935-36. The extent of the woollen and tweed milling industry in Australia during the last five years is shown in the following table :-
WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING).-AUSTRALIA.

| Items. |  |  | $\begin{gathered} 193 \mathrm{r}-32 . \\ (a) \\ \hline \end{gathered}$ | $1932-33 .$ (a) | $\underset{(a)}{1933-34 .}$ | 1934-35. <br> (a) | $\begin{gathered} 1935-36 . \\ (a) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  |  | 8 I | 89 | 98 | 103 | $94^{\circ}$ |
| Number of employees |  | $\cdots$ | 13,607 | 16,206 | 17,546 | 17,486 | 19,693 |
| A verage horse-power of | engines used | $\cdot$ | 30,298 | 31,586 | 31,423 | 31,919 | 34,736 |
| Approx, value of land a | d buildings | $\underline{1}$ | 2,232,015 | 2,273,954 | 2,359,997 | 2,335,913 | 2,455,14 1 |
| Approx. value of plant | d machinery | £ | 3,381,308 | 3,354,724 | 3,306,464 | 3,239,780 | 3,343,968 |
| Wages paid |  | $\pm$ | 1,945,879 | 2,196,162 | 2,233,024 | 2,234,513 | 2,612,723 |
| Value of fuel used |  | $\pm$ | 322,532 | 426,33I | 398,192 | 380,134 | 393,775 |
| Falue of materials used |  | $\pm$ | 4,893,757 | 6,084,638 | 7,401,246 | 6,504,841 | 7,548,122 |
| Total value of output |  | $\pm$ | 8,452.029 | 10.307,925 | 11,635,920 | 10,712,076 | 12,545,067 |
| Value of production | - . | E | 3,235,740 | 3,796,956 | 3,836,482 | 3,827,101 | 4,603:170 |

(a) Excluding Woolscouring in New South Wales.
(iii) Quantity and Value of Production. The production consists chiefly of tweed oloths, flannels, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. Detailed particulars for the several States are not available for publication. The total length of tweed and cloth manufactured in Australia in 1935-36 was $24,435,598$ square yards. In New South Wales 8,299,745 square yards, and in Victoria $\mathbf{1}_{4}, 571,067$ square yards of tweed and cloth were manufactured. The production of flannel amounted to $8,265,212$ yards, while blankets, shawls and rugs to the number of $1,447,241$ were made. The output of yarn reported was $12,608,34 \mathrm{I} \mathrm{lb}$., most of which was produced in Victoria and New South Wales.

Cotton ginning has been carried on intermittently in the Northern States, and the recent development in cotton growing has led to the establishment of modern ginning plants at convenient centres in Queensland. In New South Wales the first establishment for the manufacture of cotton goods was erected in 1923-24. There were thirty-two estabiishments treating cotton in Australia in 1935-36, and these employed 2,658 hands, while the value of the output was $\mathfrak{£ x}, 900,561$.
14. Hosiery and Other Knitted Goods.-(i) Details for each State, 1935-36. In addition to the woollen and tweed factories, there were 314 hosiery and knitting mills operating in Australia during the year 1935-36. The total number of hands employed
by these establishments was 15,692, of which II,IJ5 were females. Details for eath State are shown hereunder :-

HOSIERY AND OTHER KNITTED GOODS, 1935-36.

(a) Particulars not available for publication.
(b) Including Queensland and Tasmania.
(ii) Total for Australia, 1931-32 to 1935-36. Comparative statistics for the five years are shown in the following table:-

HOSIERY AND OTHER KNITTED GOODS.-AUSTRALIA.

| Items. |  |  | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  |  | 290 | 312 | 320 | 310 | 314 |
| Number of employees |  | $\cdots$ | 12,470 | 13,884 | 13.950 | 14,493 | 15,692 |
| Average horse-power of | engines used |  | 5,518 | 5,49+ | 5.832 | 5,905 | 6,34 ${ }^{\text {c }}$ |
| Approx. value of land and | and huildingrs | £ | 上,543,664 | 1,708,066 | 1,668,748 | 1,676,89\% | 1.791,583 |
| Approx. valie of plant | d machinery | $\Sigma$ | 1,560,616 | $1,603,813$ | 1,620,528 | 1,654,979 | 1,711,536 |
| Wages paid | . . . | $\underline{1}$ | 1,419,591 | 1,579,623 | 1,592,378 | 1,624, ${ }^{1} \mathbf{1 4}_{4}$ | 1,319,265 |
| Value of fuel used |  | £ | 92,197 | 101,822 | 100,989 | 107,812 | 113.773 |
| Value of materials used |  | $\pm$ | 3,051,74I | 3,321,222 | 3,420,858 | 3,506,654 | 3.768 .336 |
| Total value of output |  | £ | 5,803,011 | 6,272,318 | 6,651,293 | 6,56r, 114 | 7.327,363 |
| Value of production |  | $\pm$ | 2,659,073 | 2,849,274 | 3,129,446 | 2,946,64 | 3,445:254 |

(iii) Raw Material used and Production, 1935-36. The main raw materials consumed in establishments manufacturing hosiery and knitted goods during the year 193.-36 consisted of woollen yarn, $6,208,966 \mathrm{lb}$. ; cotton yarn, $5,243,807 \mathrm{lb}$.; silk, $833,753 \mathrm{lb}$; and artificial silk, $5,241,966 \mathrm{lb}$. Production comprised $28,806,000$ garments, valued at $\mathfrak{£}_{3,758,972}$; 1,663,296 dozen pairs of stockings, valued at $£ 2,114,779$; and $1,532,884$ dozen pairs of soeks valued at $£ 555,201$.
15. Tanning, Currying and Leather Dressing.-(i) Details for each Slate, 1935-36. In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australa 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 varietier.

TANNING, CURRYING AND LEATHER DRESSING, 1935-36.


[^3](ii) Total for Australia, 1931-32 to 1935-36. The development of the tanning industry during the years stated is shown in the following table:-

TANNING, CURRYING AND LEATHER DRESSING.-AUSTRALIA.

| Items. |  | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 146 | 147 | 153 | 143 | 135 |
| Number of employees |  | 3,336 | 3,766 | 4,039 | 4,142 | 4,733 |
| A verage horse-power of engines used |  | 8,312 | 8,945 | 9,583 | 9,475 | 9,5.40 |
| Approx. value of hand and buildings | $\pm$ | -63,950 | 756.532 | 766,014 | 774.393 | 748,897 |
| Approx. value of plant and machinery | $\pm$ | 519.579 | 506,920 | 504,314 | 506,190 | 513,872 |
| Wages paid .. | £ | 609.305 | 652,574 | 659,870 | 723,711 | 810,742 |
| Value of fuel used | f | 74,653 | 81,116 | 81,615 | 82,244 | 84,652 |
| Value of materials used | $\pm$ | 2,359,8. 2 | 2,451,725 | 2,818,42I | 2,764,343 | 3.099,679 |
| Total value of output |  | 3,509,078 | 3,688,550 | 4,110,056 | 4,080,442 | 4,632,562. |
| Value of proxuction | £ | $1.074,583$ | 1.155,709 | 1,210,020 | 1,233,855 | 1,448.301 |

It should be noted that in order to conceal confidential information particulars of cone fellmongering establishment have been included in the figures for Tasmania.
(iii) Raw Material Used and Production, 1935-36. The quantities of raw material used and leather produced in tanneries in each State are shown in the following table :-TANNERIES.-RAW MATERIAL USED AND PRODUCTION, 1935-36.

(a) Not available for publication.
(b) Including particulars for states marked (a).
(c) Number.
16. Boot Factories.-(i) Boot and Shoe Factories, 1935-36. The boot and shoe industry holds an important place in regard to employment afforded and extent of output. The operations of these factories have been rather obscured in recent years by the inclusion of a large number of repair establishments in the returns, but this difficulty has been overcome by the collection of separate statistics for each industry, and in the following table the details relate to boot and shoe factories as distinct from those devoted to repairing and bespoke work :-

BOOT AND SHOE FACTORIES, 1935-36.

(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 1935-36 the number amounted to 1,275 , in which 2,163 hands were employed. The sum of $£_{I 1} 6,8_{32}$ was distributed in salaries and wages, and the output was valued at $£ 667.217$.
(iii) Quantity and Value of Production. The number and value of boots, shoes and olippers made at factories in each State are shown in the following table :-

BOOT AND SHOE FACTORIES.-OUTPUT, 1935-36.

(a) Made for other than factory use.
17. Talloring and Slop Clothing Factories.-(i) Details for each State, 1935-36. The importance of this industry in the several States is shown in the following table :-

TAILORING AND SLOP CLOTHING FACTORIES, 1935-36.

(ii) Total for Australia, 1931-32 to 1935-36. Details for the last five years are as follows :-

TAILORING AND SLOP CLOTHING FACTORIES.-AUSTRALIA.

| Items. |  | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 1,006 | 1,019 | 1,040 | 1,115 | 1,157 |
| Number of employees |  | 17,470 | 18,681 | 20,95 1 | 23,579 | 24,877 |
| A verage horse-power of engines used | - | 17,647 | 1,847 | 1,833 | 2,110 | 2,277 |
| Approx. value of land and buildings | $\pm$ | 2,654,382 | 2,493,180 | 2,516,492 | 2,776,968 | 2,885,076 |
| Approx. value of plant and machinery | $\pm$ | -56,976 | 257,416 | 273,000 | 316,908 | 327,333 |
| Wages paid ... | $\pm$ | 1,859,268 | 1,895,349 | 2,126,826 | 2,446,429 | 2,578,597 |
| Value of tuel used | $\pm$ | 47,798 | 48,831 | 51,887 | 56,857 | 58,556 |
| Value of materials used | £ | 3,258,800 | 3,635,773 | 4,112,707 | 4,573,477 | 4,826,010 |
| Total value of output | £ | 6,158,633 | 6,693,256 | 7,627,067 | 8,407,294 | 8,939,837 |
| Value of production | £ | 2,852,035 | 2,968.652 | 3.462,473 | 3,776,960 | 4,055,271 |

18. Dressmaking and Millinery Establishments.-(i) Details for each State, 1935-36. Particulars of dreasmaking and millinery establishments are given separately in the following tables:-

## DRESSMAKING ESTABLISHMENTS, 1935-36.


(a) Includes Millinery.

MILLINERY ESTABLISHMENTS, 1935-36.

(ii) Total for Australia, 1931-32 to 1935-36. Particulars of dressmaking and millinery establishments in Australia for the last five years are shown in the following table :-

DRESSMAKING AND MILLINERY ESTABLISHMENTS.-AUSTRALIA.

| 1 i i |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Items. |  | 1931-32. | 1932-3.3. | 1933-34. | 1934-35 | 1935-36. |
| -. -- ... |  |  |  |  |  |  |
| Number of factories |  | 731 | 764 | 812 | 85. | 863 |
| Number of employees .. | $\cdots$ | 11,347 | 13,455 |  | 15,166 | 15,683 |
| Average horse-power of engines used | $\cdots$ | 1,049 | 1,139 | 1,195 | 1,35* | 1,453 |
| Approx. value of land and buildings | £ | 1,667,55.5 | 1,710,482 | 1,795.265 | 1,898,295 | 1 1,897:903 |
| Approx. value of plant and machinery | $\underline{\text { E }}$ | 163,200 | 171,217 | 176,845 | 177,241 | 180,934 |
| Wages paid .. | f | 1,045,554 | 1.187,375 | 1,237,581 | 1,316,645 | 1 $1,391,3.48$ |
| Value of fuel used ${ }^{\text {Value of materials used. }}$ | £ | 22.508 $2,061,912$ | 24,717 $2,354,141$ | 27,205 $2,327,141$ | 28,225 $\mathbf{2 , 4 3 9 , 0 3 4}$ | 30,245 $2,559,119$ |
| Total value of output | £ | 3,770,217 | 4,238,509 | 4,208,099 | 4,534,050 | 4.869 .311 |
| Value of production .. .. | $\pm$ | 1,685,797 | 1,859:651 | 1,944.653 | 2,066.800 | 2,279.947 |

19. Shirts, Collars and Underclothing.-(i) Details for each State, 1935-36. Particulars of this industry are shown in the subjoined table :-

SHIRTS, COLLARS AND UNDERCLOTHING, 1935-36.

(a) Particulars not a vailahle for publication
(b) Including Western Australia and Tammanala. (c) Includes Handkerchiefs, Ties and Scarves.
(ii) Total for Australia, 193I-32 to 1935-30. The following table shows the progressof the industry since 1931-32:-

SHIRTS, COLLARS AND UNDERCLOTHING.-AUSTRALIA.

20. Bacon-curing Factories.-(i) Details for each State, 1935-36. The table hereunder gives particulars of factories engaged in bacon-curing in each State for the year 1935-36:-

BACON-CURING FACTORIES, 1935-36.

(ii) Quantily and Value of Production. The number of pigs killed and the quantity and value of the production of bacon-curing factories in each State for the year 193.5-36 are given hereafter :-

BACON-CURING FACTORIES.-PIGS KILLED, AND PRODUCTION. 1935-36.

| Particulars. |  | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. ${ }_{-}$ | Tasmania. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pigs Killed. |  |  |  |  |  |  |  |  |
| Number - |  | 251,647 | $19^{8,148}$ | 384,027 | 75,739 | 62,527 | 18,643 | 990,73 |
| Pbobucts. |  |  |  |  |  |  |  |  |
| Bacon and ham . <br> Lard | '000 lb. | $\begin{array}{r}21,156 \\ 863 \\ \hline\end{array}$ | $\begin{array}{r}17,099 \\ 830 \\ \hline\end{array}$ | 23,017 1,303 | $\begin{array}{r}6,274 \\ 213 \\ \hline\end{array}$ | $\begin{array}{r}5,316 \\ 275 \\ \hline\end{array}$ | $\begin{array}{r}1,417 \\ 85 \\ \hline\end{array}$ | $\begin{array}{r}74,279 \\ 3,569 \\ \hline\end{array}$ |
| Value. |  |  |  |  |  |  |  |  |
| Bacon and ham Lard Other products | £ E | 783,819 17,950 124,728 | 715,774 22,147 136,74 | 889,112 32,660 526,140 | 252,209 6,040 138,9361 | $\begin{array}{r} 193,412 \\ 6,8,8, \\ 20,419 \end{array}$ | 52,578 2,487 16,703 | $\begin{array}{r} 2,886,904 \\ 88,138 \\ 963,6,40 \end{array}$ |

Bacon and ham and other pig products are dealt with more fully in Chapter XXI.Farmyard, Dairy and Bee Products.
21. Butter, Cheese and Condensed Milk Factories.-(i) Details for each State, 1935-36. The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1935-36:-

BUTTER, CHEESE AND CONDENSED MILK FACTORIES, 1935-36.

| Items. | N.S.W. | Victoria. | Qland. | S. Aust. | W.A. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 130 | 176 | 98 | , | 24 | 47 | 517 |
| Number of employces. | 1,425 | 2,680 | 1,096 | 4 I 3 | 215 | 233 | 6,062 |
| Average horse-pover of engines used | 11,327 | 9,086 | 8,560 | 1.360 | 1,015 | 732 | 32,080 |
| Approximate value of land and buildings .. | 641,615 | 1,080,580 | 576.035 | 162,435 | 86,942 | 88,256 | 2,635,863 |
| Approximate value of plant and marlinery | 770,428 | 1,082,783 | 717,310 |  | 85,580 | 71.117 | 2,849,645 |
| Wager paid . | 327.317 | 551,217 | 243,011 | 70, 2, | 42,233 | 32,077 | $2,849,645$ $\mathbf{I}, 265,898$ |
| Value of fuel used $\quad \therefore \quad$ ¢ | $8_{4,915}$ | 131,5+5 | - 52,605 | 16,244 | 10,518 | $14,+30$ | $1,265,260$ 310,200 |
| Value of materials used f | 6,162,192 | 8,653,908 | 5,727,640 | 1,044,395 | 653,085 | 386.228 | 22,627,448 |
| Total value of out put. . $£$ | 6,835,470 | 10,251,289 | 6,229,006 | 1,264,412 | 801,237 | 487.675 | 25,869,080 |
| Valua of production .. for | 588,363 | 1,465,836 | 448,758 | 203.773 | 137,634 | 87,017 | 2,931,385 |

(ii) Total for Australia, 1931-32 to 1935-36. The progress of this industry during the last five years is set out hereunder :-
bUTTER, CHEESE AND CONDENSED MILK FACTORIES.-AUSTRALIA.

| Items. |  | 1931-32. | 1932-33. | , 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  |  | 520 | 531 | 544 | 517 |
| Number oi employees |  | 5,488 | 5,703 | 5,967 | 6,151 | 6,002 |
| A verage horse-power of engines used |  | 29,131 | 29,02R | 29,911 | 32,815 | 32,080 |
| Approx. value of land and buildings | E | 2,545,245 | 2,533.470 | 2,577,138 | 2,616,769 | 2,635,863 |
| Approx. value of plant and machiuery | 5 | 2,715,729 | 2.749,228 | 2,775,355 | 2,779,468 | 2,849,645 |
| Wages pait Value of fuel uged | £ | 1,202,209 | 1,174,007 | 1,202,397 | 1,251,418 | 1, 265,898 |
| Value of fitel used | ${ }_{5}$ | 303,547 | 311.254 | 311,261 | 320,073 | 310.260 |
| Value of materials used | £ | 19,920,816 | 17,996,224 | $17,387,974$ | 20,182,321 | 22,627,44 ${ }^{8}$ |
| Total value of ontput | £ | 22,743,620 | 21,035,968 | [20,809,673 | 23,376,685 | 25,869,089 |
| Value of production | $\underline{1}$ | 2,519,257 | 2,728,490 | 3,110,443 | 2,874,291 | 2,931,381 |

(iii) Quantity and Falue of Production. The next table shows the quantity and value of butter, cheese and condensed milk produced, and the quantity of milk used in butter, cheese and condensed milk factories in each State for the year 1935-36:BUTTER, CHEESE AND CONDENSED MILK FACTORIES.-PRODUCTION, 1935-36.


The butter, cheese and condensed milk industries are dealt with more fully in Chapter XXI.-Farmyard, Dairy and Bee Products.
22. 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 frozen beef, lamb and mutton for export, while insulated space for the carriage of frozen produce is provided by steamship companies trading between Australia and other parts of the world. The substitution of the export of chilled for frozen meat has already been referred to in Chapter XIX.-Pastoral Production.

MEAT AND FISH PRESERVING WORKS, (a) 1935-36.


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.
23. Bakeries.-Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1935-36 is given in the table below. It should be noted, however, that, as explained in § 1 , par. 2 above the details refer to establishments coming within the definition of a factory. For that reason there are a large number of bakebouses 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 desirable.

BAKERIES (INCLUDING CAKES AND PASTRY), 1935-36.

| Items. | N.S.W. | Victoria. | Qiland. | S. Aust. | W. Aust. | Tas. <br> (a) | Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | $5 \pm 7$ | 537 | 205 | 117 | 113 | 74 | 1,563 |
| Number of employees | 3,561 | 3,135 | 1,242 | 794 | $49^{2}$ | 1,214 | 10,434 |
| Average horse-power of engines used | 3,209 | 2,138 | 931 | 733 | 32 I | 836 | 8,168 |
| Approximate value of land and buildings | 1,736,306 | 1,132,603 | 416,319 | 250,337 | 159,465 | 343,523 | 4,038,553 |
| Approximate value of plant and machinery | 502,977 | 365,988 |  | 76.1 |  | 58,279 | 1,183,689 |
| Wages paid $\quad$ - | 632,074 | 461,593 | 180,542 |  | 74,240 | 154,228 | 1,616,798 |
| Value of fuel used ... £ | 96,992 | 83,664 | 25,701 | 15,902 | 12,210 | 18,674 | 253,143 |
| Value of materials used | 2,036,156 | 1,780,510 | 69x,559 | 420.383 | 277,679 | 431,079 | 5,637,366 |
| Total value of output £ | 3,361,600 | 2,842,227 | 1,122,168 | 668,157 | 481,729 | 680,045 | 9,155,926 |
| Value of production . . £ | $\mid \mathrm{I}, 228.452$ | 978,053 | 404,908 | 231,872 | 191,840 | 230,292 | 3,265,417 |

(a) Includes Biscuits and Confectionery.
24. Jam and Fruit Preserving, Pickles, Sauces and Vinegar Factories.-(i) Details for each State, 1935-36. The subjoined table gives particulars of factories included in this class for the year 1935-36. One establishment engaged in meat preserving has been included in the details shown for Tasmania in order that confidential information may not be disclosed.

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1935-36.

(ii) Total for Australia, 1931-32 to 1935-36. Particulars in connexion with these establishments in Australia for the last five years are given hereunder :-

## JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES.-AUSTRALIA.

| Items. |  | 1935-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | $\cdots$ | 121 | 115 | 20 | 122 | 25 |
| Number of employees | $\cdots$ | 4,130 | 4,786 | 4,895 | 5,213 | 5,773 |
| Average horse-power of engines used | c | 5,711 | 5,730 | 5,493 | 5,802 | 5,995 |
| Approx. value of land and buildings | $\mathcal{L}$ | 1,037,911 | 1,025,310 | 1,032,409 | 1,103,291 | 1, 125,20+ |
| Approx. value of plant and machinery | $\pm$ | 548,062 | 525,057 | 525,199 | 521,800 | $5+9,4{ }^{1}$ |
| Wages paid . | £ | 617,912 | 709,572 | 722,265 | 795,621 | 929,792 |
| Value of fuel used | £ | 61,832 | 66,231 | 65,724 | 78,144 | 89.227 |
| Velue of materials used | £ | 2,785,669 | 3,185,285 | 2,831,602 | 3,312,257 | 3.965,336 |
| Total value of output | $\pm$ | 4,210,988 | 4,919,037 | 4,634,959 | 5,428,876 | 0,276, 112 |
| Value of production | E | 1,363,487 | 1,667,52I | 1:737.633 | 2,038,475 | $2,2 \pm 1.547$ |

The progreas of the jam-making industry was very marked during the war years, when large quantities were exported overseas for the supply of army requirements. In the year 1918-19 the production amounted to $142,290,000 \mathrm{lb}$. but, with the termination of the war, the quantity declined to $90,140,000 \mathrm{lb}$. in $1920-21$. During the succeeding years the production of jam varied considerably falling to $66,120,000 \mathrm{lb}$. in $1930-31$ and subsequently improving to $90,302,000 \mathrm{lb}$. in 1935-36. In 1935-36 the output of preserved fruit reached the record figure of $116,697,000 \mathrm{lb}$, nearly 19 million lb , in excess of the previous year and more than 12 million lb. greater than the previous maximum in 1932-33. 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 1935-36:-

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES.-OUTPUT, 1935-36.

(a) Particulars not available for publication. (b) Including Westera Australia and Tasmania.
25. Confectionery Factories.-(i) Details for each State, 1935-36. At the close of the year 1900 there were in New South Wales 16 establishments, with 706 employees, and in Victoria 16 establishments, employing 731 persons, the plant and machinery in the former State boing valued at $£_{2}, 815$, and in the latter at $\mathfrak{f i g , o 7 0}$. The figures for the year 1935-36 given hereunder show the remarkable development since 1900 :-

SUGAR CONFECTIONERY FACTORIES,(b) 1935-36.

| Items. | N.S.W. | Victoria. | Qland. | S. Aust. | W. Aust. | Tas. <br> (a) | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of tacteries | 66 | 100 | 15 | 18 | 14 | 4 | 217 |
| Number of employees . | 3.326 | 3.050 | 501 | 371 | 265 | 7 | 7.516 |
| Average horse-power of engines used | 5,593 | 6,370 | 1,280 | 735 | 345 | 44 | 14,363 |
| Approximate value of land and buildings | 947,137 | 502.033 | 179,457 | S1, $8_{49}$ | 60,426 | 3.520 | 1,774,452 |
| Approximate value of plant and machinery | 042,321 | 548,318 | 38,045 | 60,496 | 69:4.57 | 3.526 | 1,712,163 |
| Wrges paid - . E | 452,023 | 426,870 | 64, 39 | 31,675 | 34,217 | 1,151 | 1,010,775 |
| Value of fuel used ... $\quad$ ¢ | 50,078 | 44,064 | 8,227 | 9,273 | 4,427 | 372 | 117,041 |
| Value of materials used $\quad \mathbf{£}$ | 1,463:839 | 1,172,396 | 190,950 | 113,126 | So,1wo | 3,225 | 3,023,696 |
| Total value of output $\quad \mathfrak{i}$ | 2,909,999 | 2,021,124 | 345,467 | 174,25.4 | 204,786 | 0.516 | 5,653, 146 |
| Value of production .. ${ }_{\text {e }}$ | 1,396,082 | So4,064 | 1,46,290 | 51,855 | 120,199 | 2.919 | 2,521.409 |

(a) Ice Cream factories-Other Confectionery Included in Rakeries.
(b) Including Cheveolate and lee C'renn.
(ii) Total for A ustralia, 1931-32 to 1935-36. Particulars of the confectionery industry during the last five years are shown in the following table:-

## SUGAR CONFECTIONERY FACTORIES.-AUSTRALIA.


(a) See notes to previous table.

The confectionery industry expanded rapidly during the war years largely as a result of the stimulus afforded by the embargo placed on the importation of luxuries during that period. The industry, however, was seriously affected by the business depression but has now regained its former position. Confectionery establishments in Tasmania have been combined with bakeries in order to conceal confidential information. Production is sufficient to supply local requirements, and an export trade is being developed. Several large British manufacturers of confectionery have established branch works in Australia.
26. Grain Milling.-(i) Details for States, 1935-36. The following table shows the position of the Hour-milling industry in each State in 1935-36:-

|  | GR | N MI | Ni. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Items. | N.S.W. | Victoria. | Q'iand. | S. Aust <br> (a) | W. A inst. | Tas. (a) | Australia. |
| Number of factories |  | $38$ | 10 | 35 |  | 9 |  |
| Number of employees | 1,299 | 1,113 | 352 | 419 | 389 | 113 | - 3,685 |
| A verage horse-power engines used | 8,111 | 0.151 | 1,683 | 3,025 | 3,007 | 548 | 22,525 |
| Approximate valuc of land and buildings | 794,766 | 553,578 | 193,592 | 162,254 | 231,140 | 66,622 | 2,001,952 |
| Approximate value of plint and marbinery .. | 741,293 | 543,396 | 191,198 | 221,596 | 224,218 | 31,467. | 1,953,168 |
| Wages paid - i | 309,594 | 246,078 | 79,701 | 81,867 | 81,712 | -4,246 | 823,198 |
| Value of fuel used .. $f$ | 82,676 | $!63,814$ | 14,160 | 25,325 | 21,902 | 4,275 | 213,152 |
| Value of materials used | 1,480,690 | 3,756,614 | 899,450 | 1,088,720 | 1,085,856 | 236,693 | 11,548,032 |
| Total valie of out put $\mathfrak{f}$ | 5,327,808 | 4,411,691 | 1,118,142 | 1,275.65? | 1,175,212 | 255,817 | 13,894,323 |
| Value of production $\mathbf{E}$ | 764,433 | \| 591,263 | 204,532 | 160,608 | 367,454 | 44,849 | 2,133,139 |

(a) The manufacture of cornflour, oatmeal. etc., was also carried on in some of these establishments.
(ii) Production of Flour and By-products, 1931-32 to 1935-36. The production of flour by the mills in each State for the years indicated was as follows :-

GRAIN MILLING.-PRODUCTION OF FI.OUR.

| Year. |  | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tasmanis. | Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Tons.(a) | Tons.(a) | Tons.(a) | Tons.(a) | Tons.(a) | Tons.(a) | Tons.(a) |
| 1931-32 |  | 490,662 | 396,257 | 77,376 | I 55,2 I 5 | 131,165 | 19,540 | 1,270,215 |
| 1932-33 |  | 525.651 | 425,930 | 91,498 | 129,225 | 127,574 | 19,372 | 1,319,250 |
| 1933-34 |  | 495.779 | 395,566 | 84,159 | 121,8II | 122,000 | 19,253 | 1,238,568 |
| 1934-35 |  | 555,173 | 437,262 | 86.246 | 136,716 | 124,130 | 19,260 | 1,358,787 |
| I935-36 |  | 523,281 | $435.34^{\circ}$ | 86, 142 | 124,02 | 118,340 | 20,492 | $1,307,616$ |

(a) Tons of 2,000 lb .

The production of flour in Australia for the last year, $1,307,616$ tons, was valued at $£ 50,600,278$. In addition, 570,059 tons of bran and pollard, valued at $£_{3}, 064,788$, were made. The quantity of wheat ground was $62,724,779$ bushels.
27. Sugar Mills.-(i) Details for 1935-36. The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queansland in 1935-36. Sugar-cane is not grown in the other States. Dotails regarding the area, yield, etc., of sugar-cane will be found in Chapter XX.-Agricultural Production.

SUGAR MILLS, 1935-36.

| Items. |  |  | N.S.W. | Queensland. | Australia. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | .- |  | -. -- |  |  |  |
| Number of factories |  |  | 3 | 33 | 1 | 36 |
| Number of employees |  | . | 198 | 4,176 |  | 4,374 |
| Average horse-power of e | gines usrd |  | 2,970 | 40,218 |  | 43,188 |
| Approximate value of lan | and buildings | £ | 230,000 | 1,019,066 | $1^{\prime}$ | 1,2,49,066 |
| Approximate value of pla | and machinery | £ | 932,053 | 7,688,522 |  | 8,620,575 |
| Wages paid . |  | £ | 76,073 | $1,146,178$ | ' | 1,222,251 |
| Value of fuel used |  | $\underline{1}$ | 14,998 | 91,744 | ! | 106,742 |
| Value of materials used |  | £ | 437,3 50 | 7,456,224 |  | 7,893,534 |
| Total value of output |  | $\pm$ | 663.975 | 9,699,025 | + | 10,363,000 |
| Value of production |  | f | 211,667 | 2,151,057 | I | 2,362,724 |

The products of the sugar mill are raw sugar and molasses, the former being sent to the rofineries in different parts of Australia for further treatment. Part of the molasses produced is used for distillation, purt is prepered for human consumption, part is tarned into food-cake for cattle, part is used for manuring land, and the balance is either burnt as fuel or is allowed to run to waste. This latter quantity, however, is being soduced aach year.
(ii) Progress of Industry. (a) Ney South Wales. The following table showe the progress which has been made in this industry in New South Wales since 1911:-

SUGAR MILLS.-NEW SOUTH WALES.


The concentration of cane-crushing in establishments fitted with modern machinery hes caused the closing of the simall home mill and thereby reduced the number of mills operating. The Government assistance, referred to in the chapter lealing with Agriculture, has resulted in considerable progress in the cultivation of sugar-cane and increased activity in milling. Particulars regarding cane crushed and sugar produced embodied in these tables refer to the quantities treated during the twelve months ending 3oth June in each year, irrespective of the season in which the cane was grown; consequently the figures relating to cane crushed and sugar produced differ slightly from those given in Chapter XX.-Agriculture, which relate to harvest years.
(b) Queenstand. Details for Queensland for 1911 and the last four years are given tereunder:-

| Items. |  | 1911. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 49 | 33 | 33 | 33 | 33 |
| Number of employees |  | 4,295 | 4,916 | 5,132 | 4,436 | 4,176 |
| Cane crushed | tons | 1,534,451 | 3,546,373 | 4,667,122 | 4,271,380 | 4,220,435 |
| Sugar produced | " | 173,296 | 512,781 | 638,559 | 611,161 | 610,030 |
| Molasses- |  |  |  |  |  |  |
| Sold to distillers and others |  | 9 | 2,904,242 |  |  | 4,792,950 |
| Used as fodder | ," | 789,564 | 2,988,005 | 2,902,188 | 5,017,717 | 4,792,950 |
|  |  | 223,000 | 1,414,338 | 1,793,101 | 2,227,905 | 2,559,528 |
| Run to waste |  | 847,333 | 1,402,483 | 1,747,365 | 1,162,715 | 1,214,678 |
| Burnt as fuel |  | ,847,333 | 6,182,769 | 7,348,015 | 5,339,489 | 1,103,475 |
| In stock | , | 1,197,626 | 898,524 | 634,022 | 1,673,507 |  |
| Total molasses | " | 6,451,192 | 15,791,261 | 18,873,185 | 18,457,031 | 16,488,386 |

28. 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 1935-36 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 Aastralia. The quantity of raw sugar treated amounted to 331,127 tons, for a yield of 323,843 tons of refined sugar, valued at $£_{10} 0,381,222$.
29. Breweries.-(i) Details for each State, 1935-36. The following table gives particulars concerning breweries in each State:-

BREWERIES, 1935-36.

| Items. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. <br> (a) | Australis. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of breweries. |  | 5 |  | 7 | 6 | 6 |  | 37 |
| Number of employees |  | 873 | 1,258 | 362 | 242 | 403 |  | 3,228 |
| Average horse-power of engines |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 2,426,415 |
| Approximate value of plant and |  |  |  |  |  |  |  |  |
| machinery -. | c | 769,194 | 853,072 | 306,357 | 197,322 | 206,822 | 105,933 | 2,440,700 |
| Wages paid |  | 249,828 | 423,316 | 107,572 | 77,282 | 136,477 | 24,510 | 1,018,985 |
| Value of fuel used | $\pm$ | 67,745 | 65,987 | 26,535 | 14,817 | 18,634 | 8,649 | 202,367 |
| Value of miterials used | ${ }_{\text {¢ }}$ | 715,143 | 1,028,292 | 22S,435 | ! 162,835 | 345,246 | 72,546 | 2,552,497 |
| Total value of outpat | E | 12,586,272 | 2,417,226 | 693,388 | 416,132 | 807,184 | 201,744 | 7,121,946 |
| Value of production. | £ | $1_{15,803 \cdot 384}$ | 1,322,947 | $438,4 \mathrm{~T} 8$ | 238,180 | 413.304 | 120,549 | 4,367,082 |

(a) Includes Malt Works.
(ii) Total for Australia, 1931-32 to 1935-36. The next table shows the extent of this industry for the last five years :-

## BREWERIES.-AUSTRALIA.

| Items. |  | $\begin{gathered} 193 x-32 . \\ (a) \end{gathered}$ | 1932-33. $(a)$ | $\underset{(a)}{193-34 .}$ | $\begin{gathered} 1934-35 . \\ (a) \end{gathered}$ | $\begin{gathered} 1935-36 . \\ (a) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of breweries |  | ${ }_{2} 8^{41}$ | 41 | 42 | 41 | 37 |
| Number of employees |  | 2,832 | 2,888 | 2,995 | 3,097 | 3,223 |
| A verage horse-power of encines used | $\cdots$ | 15,347 | 15,315 | 15;537 | 16,020 | 15,919 |
| Approx. value of land and buildings | £ | 2,400,715 | 2,378,417 | 2,423,574 | 2,411,446 | 2,425,415 |
| Approx. value of plant and machinery | £ | 2,639,383 | 2,535,431 | 2,507,559 | 2,476,600 | 2,440,700 |
| Wages paid .. | £ | 889,639 | 858,371 | 886.597 | 952,127 | 1,018,935 |
| Value of fuel used | £ | 187,452 | 183.428 | 189,902 | 194,863 | 202,367 |
| Value of materials used | £ | 1,889,923 | 1,905,147 | 2,011,957 | 2,262,174 | 2,552,497 |
| Total value of output | $\pm$ | 5,133,025 | 5,235,923 | 5,625,876 | 6,439,227 | 7,121,046 |
| Value of production | ¢ | 3,05:.650 | 3,1.77.348 | 3,424,017 | 3,892,190 | 4,367,082 |

(a) Includes Malt Works in Tasmania.

The quantity of ale and stout brewed fell from 73.7 million gallons in 1928 -29 to 49.5 million gallons in 1931-32, but thereafter the: production increased each year to $70,110,615$ gallons in $1035-36$. Fur a number of years prior to the depression the consumption of ale aud stout exceeded 11 gallons per bead of the population ; it. dropped to 7.32 gallons in 1931-32, but has now advanced to 9.60 gallons.
(iii) Materials Used and Production. The table below shows the quantity of raw material used and the quantity and value of ale and stout brewed in each State as furnished by the Excise Branch of the Department of Trade and Customs during the year 1935-36.

BREWERIES.-MATERIALS USED AND PRODUCTION, 1935-36.
Raw Material Used.

Raw Material Used per i,ooo Gallons of Ale and Stout Produced.

30. Distilleries.-Distilleries are located in all the States with the exception of Western Australia and Tasmania. The following information, which has been extracted from returns furnished by the Excise Branch of the Department of Trade and Customs, shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the year 1935-36:--Materials usef : barley 82,479 bushels; barley malt 87,669 bushels ; mohases $\mathrm{I}, 11$, OI 7 cwt. ; wine $10,891,628$ gallons: raisins and curants 28,238 cwt. ; grapes 87,689 cwt. The quantities of eririts distilled from barley, malt and grain were 434,825 gallons; from molasses $5,363,659$ gallons; and from wine 2,448,634 gallons; total 8,247,118 gallons. The quantity of spirits denatured during the year was $3,377,127$ gallons.
31. Tobacco, etc., Factories.-(i) Details for each State, 1935-36. During the year 1935-36 there were thirty-one establishments in which the manufacture of tobacco, digars, or cigarettos was carried on. There were no tobacco factories in Tasmania.

TOBACCO, CIGAR AND CIGARETTE FACTORIES, 1935-36.

(ii) Total for Australia. This industry was among the first to br established in Australia. In 1861 New South Wales had 11 factories, producing 177,744 lb . of manufactured tobacco: in the same year there was one factory in Victoria. but the quantity of tobacco manufactured is not arailable. The Austratian market has for many years been largely supplied with local manufactures from the impurted leaf. Imports during 1535-36 comprised-manufactured tobacco 212,980 lb., cigars 9,802 lb ., and cigarettes $126,648 \mathrm{lb}$., while the quantities manufactured in Australian factorics were respectively $15,277,099 \mathrm{lb}, 283,097 \mathrm{lb}$., and $5,304,632 \mathrm{lb}$. The following tables show the extent of the industry in Australia for the last five years :-

## TOBACCO, CIGAR AND CIGARETTE FACTORIES.-AUSTRALIA.



Leaf Used and Production.


The production of locally-grown leaf for many years was comparatively small, and manufacturers were dependent on imported leaf for the sapply of their raw material. Increased duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 million lb . in 1929-30 to over 3 million lb . in 1930-31; in 1932-33 the quantity of local leaf used fell to 2.7 million lb., but it has since increased to 3.7 million lb. In this connexion, see item "Tobacco" in Chapter XX.-Agricultural Production.
32. Saw-mills, etc.-(i) Details for States, 1935-36. The most important industry in Class X. is that of eaw-milling. As separate particulars of forest saw-mills are not available for some of the States, both forest and other saw-mills, as well as plywood and bark mills, have been combined in the following table :-

SAW-MILLS, FOREST AND OTHER ; PLYW00D AND BARK MILLS, 1935-ī.

(ii) Total for Australia, 1931-32 to 1935-30. The development of forest and other saw-mills, ete., since 1931-32 is shown in the following table :-

SAW MILLS, FOREST AND OTHER ; PLYWOOD AND BARK MILLS.-AUSTRALIA.

| Items, |  | 1931-32. | 1932-33. | 1933-34. | 1934-35. | 1935-36. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Number of establishments |  | 1,16I | 1,229 | 1,276 | 1,405 | 1,443 |
| Number of employes |  | 8,338 | 10,102 | 12,298 | 15,333 | 17,297 |
| A verage horse-power of engines used | . | 42,557 | 45:100 | 49,064 | 56,842 | 62,038 |
| Approx. value of hand and buildings | $£$ | 1,902,367 | 1,897,933 | 1,899,729 | 2,010,001 | 1,974,918 |
| Approx. value of plant and machinery | £ | 2,611,864 | 2,449,90S | 2,460,647 | 2,595,995 | 2,702,063 |
| Warres paid . . | $\pm$ | 1,358,35 ${ }^{\text {I }}$ | 1,643,210 | 1,926,400 | 2,519,745 | 2,927,960 |
| Vahue of fuel used | £ | 95,573 | 103,361 | 115,438 | 139,572 | 170,705 |
| Value of materials used | $\pm$ | 2,651,895 | 3,285,202 | 4,022,263 | 5,604,875 | 6,663,907 |
| Total value of output | $\pm$ | 4,820,557 | 5,968,080 | 7,211,573 | 9,814,197 | 11,515,591 |
| Value of production | £ | 2,073,089 | 2,579,517 | 3,073,872 | 4,069,780 | 4,680,979 |

The table furnishes evidence of marked improvement during the past four years. The saw-mill 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 height of the depression, had recovered to 563 million super. feet in 1935-36. Indications point to further increases as a result of developments in the building industry. Further reference is made to the saw-milling industry in Chapter XXII.-Forestry.
33. Furniture, Cabinet Making and Upholstery.-These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State:-

FURNITURE, CABINET MAKING AND UPHOLSTERY FACTORIES, 1935-36.

34. Printing and Bookbinding Works.-Printing and bookbinding works rank high in importance among the industries of Australia, and in 1935-36 afforded employment for about 25, IS6 employees, and paid more than $£_{5}, 000,000$ in salaries and wages, while the value of output amounted to $\boldsymbol{f}_{13} 3,957,000$. The following table gives particulars of establishments engaged in general printing and bookbinding in each State for the year 1935-36. Government printing works are included, but establishments producing newspapers and periodicals are shown separately in the next table :-
general printing and b00Kbinding establishments, 1935-36.

Items.

(a) Includes Newspapers and Periodicals.

(a) Included in General Printing and Bookbinding.
35. Tyres, Motor and Cycle.-(i) Details for each State, 1935-36. During the lastdecade, the number of motor car and cycle users has shown a considerable advance and this necessarily has had a stimulating effect on the industry engaged in the manufacture of motor and cycle tyres. Particulars for each State during 1935-36 are shown hereunder :-

TYRES, MOTOR AND CYCLE, 1935-36.

Items. ${ }^{\prime}$ N.S.W. Victoria. ${ }^{\prime}$ Q'land. S. Aust. W. Aust.' Tas. 'Australia.
N.S.W. Victoria. ${ }_{\text {; }}$ Qiand. S. Aust. W.Aust. $\underset{\text { (a) }}{\text { as. }}$


Number of factories
Number of employees
A verage horse-power of engines used
A pproximate value of land an buildings
Approximate value of plant and machinery
Value of fuel used
Value of materials used
Trotal value of ontput
Value of production


| (a) |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 27 | 25 | 10 | 260 |
| 146 | 64 | 52 | 4,098 |
| 123 | 68 | 81 | 23,659 |
| 53,730 | 34,377 | 11,720 | 1,257,800 |
| 12,208 | 7,673 | 5,229 | 841,8I5 |
| 16,678 | 7,039 | 5,042 | 786.713 |
| 2,154 | 1,206 | 825 | 136,542 |
| 30,022 | 15,886 | 6.777 | 2,269,954 |
| 66,5 5 | $3^{8,615}$ | 19,553 | 3,788,333 |
| 34,334 | 21,523 | 1:951 | 1,381,837 |

(a) Includes Boots and Shoes and Other Rubber Goods.
(ii) Total for Australia, 1931-32 to 1935-36. Prior to 1930-31 particulars regarding this industry were included with Rubber Goods but separate details are now available and are shown in the following table for the last fire years :-

TYRES, MOTOR AND CYCLE.-AUSTRALIA.

(a) Includes Boots and Shoes and Other Rubber Goods for Tasmania.

It will be noted that the value of output for the year 1935-36 is the greatest recorded since the manufacture of motor and cycle tyres was shown as a separate industry.
36. Electric Light and Power Works.-(i) Details for each State, 1935-36. The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1931-32 the production of electric light and power has increased from 2,507 to 3,528 million British units, or by more than 40 per cent. Particulars for the year 1935-36 are as follows :-

ELECTRIC LIGHT AND POWER WORKS, 1935-36.

(ii) Production 193I-32 to 1935-36. The increase in the production of electric light and power in each of the States during the five years is clearly shown in the following table :-

## ELECTRIC LIGHT AND POWER WORKS.-PRODUCTION.


37. Gas Works.-(i) Details for each Slate, 1935-36. Gas works are in operation in the majority of important towns in Australia. New South Wales returned seven coke factories and Queensland three, working as separate industries, but under the new classification these are included in Class I.-Treatment of Non-metalliferous Mine and Quarry Products. The subjoined table gives particulars of gas works in each State for the year 1935-36:-

GAS WORKS, 1935-36.

(a) Iucludes Hydraulic Power.
(ii) Coal Used and Production, 1935-36. The following table gives details for the year 1935-36:-


The maximum output of gas was $20,929,569$ thousand cubic feet in 1929-30. The production declined to an average of $17,800,000$ thousand cubic feet during the three years ended June, 1934, but in the past two years made notable gains to 19,437,670thousand cubic feet in 1935-36.


[^0]:    2. Australls, 1931-32 to 1935-36.-The following table shows the average horse. power used in factories in Australia in each of the last five years :-
[^1]:    (a) Particulars not avallable for publication.
    (b) Including Western Australia and Tasmania.

[^2]:    (a) In Western Australis all the plants are worked on the mincs, and are therefore not included (b) Information not available for publicution. (c) Inclnding Sonth Australia and Tafmania.

[^3]:    Western Australia and Tasmania.

