## CHAPTER VI.

## MANUFACTURING INDUSTRY.

## § 1. General.

1. Introduction.-A complete statistical account of the growth of the manufacturing industry in Australia cannot be given as the necessary statistics were not collected by the several States on a definite and uniform basis prior to 1906. A standard classification of manufacturing industries was formulated at a conference of Australian statisticians in 1902 and adopted by all States in 1906 and figures on this basis were prepared for 1907 and subsequent years.

Prior to the federation of the Australian States in 1901, the manufacturing industry in Australia was engaged primarily in the production of goods for local use, mainly food commodities, furniture, bricks, clothing made from imported materials, printing, the repair rather than the manufacture of machinery, and the preliminary treatment of primary products, such as wool-scouring and sawmilling.

After federation, steady expansion of the manufacturing industry resulted from the removal of interstate trade barriers and the operation of a uniform protective tariff. This expansion was quickened as a result of the demands created by the 1914-18 War, the curtailment of imports, and the rapid growth of spending power within the community. New and more advanced development took place, iron and steel works and many related and subsidiary industries were established, extensive manufacture of machinery was begun, and a wide range of high-grade products-textiles, metal manufactures, electrical goods, etc.-was added to the list of commodities made in Australia.

This expansion was checked by the world-wide economic depression of 1929-33, but in 1933 returning general prosperity and the opportunities opened to local manufacturers by import restrictions, together with depreciation of Australian currency, gave renewed stimulus to manufacturing enterprise. As economic conditions improved, the tariff, revenue duties, and primage were reduced, but without materially prejudicing the progress of local manufactures.

When war broke out in September, 1939, Australia became a major source of supply for British countries east of Suez and in meeting their demands, as well as those arising locally because of interruption of oversea importations, existing manufacturing industries expanded, and new enterprises were developed rapidly for the production of all classes of munitions, aircraft, ships, many new kinds of machinery and metal manufactures, scientific equipment, textiles, chemicals, etc. The outbreak of war with Japan, the basing of Allied armed forces in Australia, and Australian responsibilities for supplies in the South-west Pacific Area, gave added impetus to these developments, and manufacturing in Australia outstripped all previous levels.

The cessation of war production and the transition of industry to a peace-time basis temporarily retarded progress, but from 1945-46 onward there was renewed expansion of the manufacturing industries to which an inflow of capital from overseas contributed.
2. Decentralization of Manufacturing Industries.-Following upon a report by the Secondary Industries Commission, the Commonwealth Government called a conference of Commonwealth and State Ministers in August, 1945, to formulate a national policy for the decentralization of secondary industries. It was agreed that the State Governments should seek to promote decentralization along the lines appropriate to each, providing necessary services, assistance and concessions to the full extent of State resources. The Commonwealth undertook to collaborate in all matters of Commonwealth industrial policy
affecting the development and location of industry, to investigate in association with the States the prospects of developing secondary industries in selected areas, to advise the States of developments desirable for defence purposes, and to provide financial assistance for proiects of national importance where the cost would be great relative to the State's resources.

The Commonwealth has assisted decentralization by allocating to private industry munitions and other defence buildings in decentralized areas and accommodating migrants in provincial centres with prospects of development. Oversea firms contemplating establishment in Australia are encouraged to select locations in rural areas or the less industrialized States.
3. Commonwealth Division of Industrial Development.-The functions of the Division of Industrial Development include the encouragement of industrial development, the exercising of Commonwealth responsibilities for the decentralization of industry, the promotion of industrial efficiency (especially the study of technical, production and managerial problems and the dissemination and application of new knowledge and methods), the encouragement of the development of technological institutes and the publication of studies of the structure and operation of Australian manufacturing industries. The Division was attached to the Ministry of National Development when formed in March, 1950, to plan the development of national resources and to promote decentralization and regional development in conjunction with the States, but was transferred to the Department of Trade in January, 1956.
4. Customs and Excise Tariffs and Bounties on Manufactures.--Particulars of Australian customs and excise tariffs, and the constitution and functions of the Australian Tariff Board in relation to matters affecting the industrial development of Ausiralia, are given in Chapter XIII.-Trade.

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable. and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards.
5. Scientific Research and Standardization.-(i) The Commonwealth Scientific and Industrial Research Organization. The function of this Organization, reference to which also appears in Chapter XXX., is to initiate and conduct research in connexion with industries in Australia, to train research workers, to establish industrial research studentships and fellowships, to make grants in aid of pure scientific research, to establish industrial research associations in various industries. to provide for testing and standardization of scientific equipment, to conduct an information service relatirg to scientific and industrial matters, and to act for Australia in liaison with other countries in matters of scientific research.
(ii) The Standards Association of Australia. This Association, which is referred to also in Chapter XXX., acts as the national standardizing organization of Australia and issues standard specifications for materials and codes of practice. Specifications and codes are prepared and revised periodically in accordance with the needs of industry, and standards are evolved and accepted by general consent.
(iii) The National Association of Testing Authorities. The National Association of Testing Authorities organizes national testing facilities throughout Australia to serve private and governmental needs. Laboratories may register voluntarily in respect of tests within their competence and the Association ensures the maintenance of their standards of testing. It is expected that there will be general acceptance of certificates of tests issued in the name of the Association by the registered laboratories.
6. Definitions in Factory Statistics.-The statistics relating to factories have been compiled from tabulations made by the Deputy Commonwealth Statisticians of the several States from returns supplied to them annually by manufacturers in accordance with the Statistical Acts of the States and the Commonwealth. A return must be supplied in respect of every factory, which is defined for this purpose as an establishment where four or more persons are employed or where power (other than manual) is used in any manufacturing process. This definition includes factories in educational and charitable institutions, reformatories, and other public institutions (except penitentiaries) but does not cover smallgoods makers, laundries, farriers, photography studios, florists and seedsmen, or most abattoirs. It should be noted that details relating to small establishments not classified for statistical purposes as factories are not included in the figures contained in this chapter.

If a manufacturing business is conducted in conjunction with any other activity, particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment, a separate return is obtained for each industry if practicable.

Manufacturers are requested to state in their returns particulars as to the number, age, wages, etc., of their employees, the value of premises and equipment, the horse-power of machinery, the value, and in most cases the quantities, of raw materials and fuel used, and quantities and values of principal materials and articles produced. The returns obtained from manufacturers are not intended to show a complete record of the income and expenditure of factories nor to show the profits or losses of factories collectively or individually.

The average number of persons employed is quoted on two different bases: the average during the period of operation and the average over the whole year. Of these, the former is simply the aggregate of the average number of persons employed in each factory during its period of operation (whether the whole or only part of the year). This average is used only in respect of details relating to classification according to the number of persons employed. The latter, which is used in all other instances, is calculated by reducing the average number working in the factories (irrespective of period of operation) to the equivalent number working for a full year.

Working proprietors are included in all employment figures other than those relating. to monthly employment and age dissections, but salaries and wages paid in all cases exclude drawings by working proprietors.

The value of factory output is the value of the goods manufactured or their value afterpassing through the particular process of manufacture and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis. of valuation of the output is the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments. to the manufacturer of the finished article.

The value of production is the value added to raw materials by the process of manufac-ture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools. replaced, and materials used in repairs to plant (but not depreciation charges).

In the process of manufacture, many goods are treated in several industries, the output. of one becoming the raw materials of another, so that such commodities are counted more: than once in the aggregate value of output and of raw materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become raw materials. in establishments concerned in the production of metal goods, and timber from the sawmills used in furniture factories and in joinery. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason, the value of production, and not the value of the output, is used as a measure of activity in the manufacturing industries as a whole.

In the special case of Government factories and workshops, the value of output is, in most cases, estimated by adding 10 per cent. to the value of materials and fuel used ands other factory costs, including salaries and wages paid.
7. Classification of Factories.-In the compilation of statistical data relating to factories in Australia, a standard classification of manufacturing industries, formulated at a conference of Australian statisticians in 1902 and revised from time to time, was used until the year 1929-30. A new classification was introduced in 1930-31, and this in turn was revised and extended (principally in respect of the placement and composition of sub-classes) in accordance with decisions of the Statisticians' Conference, 1945.

Owing to limitations of space, details published in general tables in this chapter are confined either to the sixteen classes of industry or to total factory activity. Particulars of certain of the sub-classes shown below are published in the latter portion of this chapter and full details for all sub-classes may be found in the Bulletin Secondary Industries, published annually.

The principal classes and sub-classes in the current classification of factories are as follows:-

## CLASSIFICATION OF FACTORIES.

Class I.-Treatment of Non-metalliferous Mine and Quarry Products.
Coke Works.
Briquetting and Pulverized Coal.
Carbide.
Lime, Plaster of Paris, Asphalt.
Fibrous Plaster and Products.
Marble, Siate, etc.
Cement, Portland.
Asbestos Cement Sheets and Mouldings.
Other Cement Goods.
Other.
Class II.-Bricks, Pottery, Glass, etc.
Bricks and Tiles.
Earthenware, China, Porcelain and Terracotta.
Glass (other than Bottles).
Glass Bottles.
Other.

## Class III.-Chemicals, Dyes, Explosives, Paints, Ons, Grease.

Industrial and Heavy Chemicals and Acids.
Pharmaceutical and Toilet Preparations.
Explosives (including Fireworks).
White Lead, Paints and Varnish.
Oils, Vegetable.
Oils, Mineral.
Oils, Animal.
Boiling-down, Tallow-refining.
Soap and Candles.
Chemical Fertilizers.
Inks, Polishes, etc.
Matches.
Other.
Class IV.-Industrial Metals, Machines, Conveyances.
Smelting, Converting, Refining, Rolling of Iron and Steel.
Foundries (Ferrous).
Plant, Equipment and Machinery, etc.
Other Engineering.
Extracting and Refining of other Metals; Alloys.
Electrical Machinery, Cables and Apparatus.
Construction and Repair of Vehicles ( 10 groups).
Ship and Boat Building and Repairing, Marine Engineering (Government and Other).
Cutlery and Small Hand Tools.
Agricultural Machines and Implements.
Non-Ferrous Metals-
Rolling and Extrusion.
Founding, Casting, etc.
Iron and Steel Sheets.
Sheet Metal Working, Pressing, and Stamping.
Pipes, Tubes and Fitings-Ferrous.
Wire and Wire Netting (including Nails).
Stoves, Ovens and Ranges.
Gas Fittings and Meters.
Lead Mills.
Sewing Machines.

Class IV.-Industrial Metals, Machines, Conveyances-continued.
Arms, Ammunition (excluding Explosives).
Wireless and Amplifying Apparatus.
Other Metal Works.
Class V.--Precious Metals, Jewellery, Platb
Jewellery.
Watches and Clocks (including Repairs).
Electroplating (Gold, Silver, Chromium, etc.).
Class VI.-Textiles and Textlle Goods (not Dress).
Cotton Ginning.
Cotton Spinning and Weaving.
Wool-Carding, Spinning, Weaving.
Hosiery and Other Knitted Goods.
Silk, Natural.
Rayon, Nylon and Other Synthetic Fibres.
Flax Mills.
Rope and Cordage.
Canvas Goods, Tents, Tarpaulins, etc.
Bags and Sacks.
Other.
Class VII.-Skins and Leather (not Clothing or Footwear).
Furriers and Fur-dressing.
Woolscouring and Fellmongery.
Tanning, Currying and Leaher-dressing.
Saddlery, Harness and Whips.
Machine Belting (Leather or other).
Bags, Trunks, etc.
Class Vill.-Clothing (except Knitted).
Tailoring and Ready-made Clothing.
Waterproof and Oilskin Clothing.
Dressmaking, Hemstitching.
Millinery.
Shirts, Collars, Underclothing.
Foundation Garments.
Handkerchiefs, Ties and Scarves.
Hats and Caps.
Gloves.
Boots and Shoes (not Rubber).
Boot and Shoe Repairing.
Boot and Shoe Accessories.
Umbrellas and Walking Sticks.
Dyeworks and Cleaning, etc.
Other.
Class IX.-Food, Drink and Tobacco.
Flour-milling.
Cereal Foods and Starch.
Animal and Bird Foods.
Cbaffcutting and Corncrushing.
Bakeries (including Cakes and Pastry).
Biscuits.
Sugar-mills.
Sugar-refining.

Class IX.-Food, Drink and Tobacco-
Confectionery (includingChocolate and IcingSugar).
Jam, Fruit and Vegetable Canning.
Pickies, Sauces, Vinegar.
Bacon Curing.
Butter Factories.
Cheese Factories.
Condensed and Dried Milk Factories.
Margarine.
Meat and Fish Preserving.
Condiments, Coffee, Spices.
Ice and Refrigerating.
Salt.
Aerated Waters, Cordials, etc.
Breweries.
Distilleries.
Wine-making.
Cider and Perry
Malting.
Bottling.
Tobacco, Cigars, Cigarettes, Snuff.
Dehydrated Fruit and Vegetables.
Ice Cream.
Sausage Casings.
Arrowroot.
Other.
Class X.-Sawmills, Joinery, Boxes, etc., wood Turning and Carving.
Sawmills.
Plywood Mills (including Veneers).
Bark Mills.
Joinery.
Cooperage.
Boxes and Cases.
Woodturning, Woodcarving, etc.
Basketware and Wickerware (including Sea-grass and Bamboo Furniture).
Perambulators (including Pushers and Strollers).
Wall and Ceiling Boards (not Plaster or Cement). Other.

Class XI.-Furntiure of Wood, Bedding, etc.
Cabinet and Furniture Making (including Billiard Tables and Upholstery).
Bedding and Mattresses (not Wire).
Furnishing Drapery.

Class XI.-Furntiure of Wood, Bedding, etc-continued.
Picture Frames.
Blinds.
Class XII.-Paper, Stationery, Printino, Bookbinding, etc.
Newspapers and Periodicals.
Printing-
Government.
General, including Bookbinding.
Manufactured Stationery.
Stereotyping, Electrotyping.
Process and Photo Engraving.
Cardboard Boxes, Cartons and Containers.
Paper Bags.
Paper-making.
Pencils, Penholders, Chalks, Crayons.
Other
Class XIII.-Rubber.
Rubber Goods (including Tyres Made.)
Tyre Retreading and Repairing.

## Class XIV.-Musical Instruments.

Gramophones and Gramophone Records. Pianos, Piano-Players, Organs. Other.

Class XV.-Miscellaneous Products.
Linoleum, Leather-cloth, Oil-cloth, etc.
Bone. Horn, Ivory and Shell
Plastic Moulding and Products.
Brooms and Brushes.
Optical Instruments and Appliances.
Surgical and Other Scientific Instruments and Appliances.
Photographic Material, (including Developing and Printing).
Toys, Games and Sports Requisites.
Artificial Flowers.
Other.
Class XVI.-Heat, light, and Power.
Electric Light and Power.
Gas Works.
8. Factory Development since 1901-Australia.-The development of the manufacturing industries in Australia at intervals since 1901 is summarized in the following table:-

FACTORIES: AUSTRALIA.

(a) 1901 and 1911 -average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (b) Excludes drawings by working proprietors. (c) Value of output less value of materials and fuel, etc., used. (d) Not available.

## § 2. Number of Factories.

1. Number of Factories in each State.-The following table shows the number of factories operating in each State in the years 1938-39 and 1952-53 to 1956-57:-

FACTORIES: NUMBER.

|  | Year. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | . | $\cdots$ | 9,464 | 9,250 | 3,087 | 2,067 | 2,129 | 944 | 26,941 |
| 1952-53 | . | . | 19,251 | 15,154 | 5,068 | 3,339 | 3,424 | 1,504 | 47,740 |
| 1953-54 | . | . | 20,199 | 15,533 | 5,199 | 3,577 | 3,523 | 1,545 | 49.576 |
| 1954-55 |  |  | 20,837 | 15.861 | 5.284 | 3,750 | 3,727 | 1,597 | 51.056 |
| 1955-56 |  |  | 21,602 | 16,053 | 5,378 | 3,908 | 3,871 | 1,594 | 52,406 |
| 1956-57 | $\cdots$ | $\cdots$ | 21,838 | 16,232 | 5,537 | 4,063 | 3,935 | 1,595 | 53,200 |

2. Number of Factories in Industrial Classes.-(i) Australia. The next table shows the number of factories in Australia during 1938-39 and 1952-53 to 1956-57 classified in the industrial classes agreed upon by the Conference of Statisticians in 1930. Details of some of the principal industries included in the table will be found in \& 11, page 185.

FACTORIES: NUMBER IN INDUSTRIAL CLASSES, AUSTRALLA.

| Class of Industry. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metaliferous Mine and Quarry Products | 564 | 1.276 | 1,280 | 1,303 | 1,337 | 1,331 |
| III. Bricks, Pottery, Glass, etc. .. | 471 | 623 | 639 | 662 | 666 | 672 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 666 | 1,090 | 1,099 | 1,124 | 1,139 | 1,162 |
| IV. Industrial Metals, Machines, Convey- |  |  |  |  |  |  |
| V. Precious ances Metals, Jewellery, Plate | 7.255 290 | 15,672 681 | 16,868 720 | $\begin{array}{r}17,842 \\ \hline 746\end{array}$ | 18,860 782 | 19,766 |
| VI. Textiles and Textile Goods (not Dress) | 611 | 1,270 | 1.336 | 1,356 | 1,362 | 1,364 |
| VII. Skins and Leather (not Clothing or | 533 | 778 | 783 | 810 | 789 | 785 |
| VIII. Clothing (except Knitted) .. | 4,314 | 7,036 | 7,260 | 7,370 | 7,390 | 7,312 |
| IX. Food, Drink and Tobacco <br> X. Sawmills, Joinery, Boxes, etc., Wood | 5,202 | 7,248 | 7,379 | 7,433 | 7,468 | 7,315 |
| Turning and Carving ... .. | 2.822 | 5,790 | 5,769 | 5,845 | 5,895 | 5,872 |
| XII. Furniture of Wood, Bedding. | 1,149 | 2,157 | 2.180 | 2,200 | 2,203 | 2.199 |
| XII. Paper. binding, etc. . . Printing, | 1,816 | 2,121 | 2,179 | 2,224 | 2,303 | 2,367 |
| XIII. Rubber .. | , 299 | , 446 | 465 | 495 | 513 | 536 |
| XIV. Musical Instruments | 34 | 69 | 75 | 79 | 84 | 88 |
| XV. Miscellaneous Products | 413 | 1,035 | 1,095 | 1,119 | 1,188 | 1,185 |
| Total, Classes I. to XV. | 26,439 | 47,292 | 49,127 | 50,608 | 51,979 | 52,778 |
| XVI. Heat, Light and Power | 502 | 448 | 449 | 448 | 427 | 422 |
| Grand Total | 26,941 | 47,740 | 49,576 | 51,056 | 52,406 | 53,200 |

Although not the best index of manufacturing activity, the number of factories affords some indication of the development of secondary industries. Except for the two war years 1941-42 and 1942-43, when there were decreases, the number of factories increased each year from 1931-32 to 1956-57. In the latter year, the number of factories in Australia reached the record total of 53,200 or nearly twice the number in 1938-39.
(ii) States, 1956-57. The following table shows the number of factories in each State classified according to the nature of the industry:-

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, 1956-57:

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products | 435 | 445 | 102 | 172 | 121 | 56 | 1,331 |
| II. Bricks, Pottery, Glass, etc. . ${ }^{\text {a }}$ | 318 | 161 | 60 | 64 | 50 | 19 | 672 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 580 | 345 | 74 | 83 | 60 | 20 | 1,162 |
| IV. Industrial Metals, Machines. Conveyances | 8,144 | 5,818 | 2,049 | 1,720 | 1,564 | 471 | 19,766 |
| V. Precious Metals, Jewellery. | 373 | 273 | 44 | 58 | 70 | 6 | 824 |
| VI. Textites and Textile Goods (not Dress) | 486 | 740 | 28 | 49 | 44 | 17 | 1,364 |
| VII. Skins and Leather (not Clothing or Footwear) | 357 | 297 | 54 | 38 | 31 | 8 | 785 |
| VIII. Clothing (except Knitted) $\quad \cdots$ | 3,411 | 2,512 | 532 | 376 | 415 | 66 | 7,312 |
| IX. Food, Drink and Tobacco ... | 2,672 | 1,999 | 1,038 | 698 | 611 | 297 | 7,315 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving | 2,321 | 1,387 | 844 | 348 | 486 | 486 | 5,872 |
| XI. Furniture of Wood. Bedding. etc. | 799 | 700 | 296 | 160 | 170 | 74 | 2,199 |
| XII. Paper. Stationery, Printing, Book binding, etc. | 999 | 864 | 200 | 149 | 122 | 33 | 2,367 |
| XIII. Rubber ... | 208 | 146 | 80 | 52 | 33 | 17 | 536 |
| XIV. Musical Instruments | 579 | 30 430 | 56 | 7 | 59 |  | 88 |
| XV. Miscellaneous Products | 579 | 430 | 58 | 45 | 59 | 14 | 1,185 |
| Total Classes I. to XV. | 21,719 | 16,147 | 5,465 | 4,019 | 3,844 | 1,584 | 52,77? |
| XVI. Heat, Light and Power | 119 | 85 | 72 | 44 | 91 | 11 | 422 |
| Grand Total .. | 21,838 | 16,232 | 5,537 | 4,063 | 3,935 | 1,595 | 53,200 |

## § 3. Classification of Factories according to Number of Persons Employed.

1. General.-The size classification of factories is based on the average weekly number of persons employed during the period of operation (including working proprietors).
2. States, 1956-57.-The following table shows, for each State, the number of factories classified according to the average number of persons employed:-

FACTORIES : CLASSIFICATION ACCORDING TO SIZE OF FACTORY, 1956-57.

| Size of Factory <br> (Persons employed). | N.S.W. | Vic. | Qland. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Number of Factories.

| Under 4 |  | - | 8,739 | 5,853 | 1,844 | 1,415 | 1,953 | 692 | 20,496 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | . | . | 1,820 | 1,248 | 576 | 383 | 160 | 146 | 4,333 |
| 51010 | . | . | 5,203 | 3,918 | 1,564 | 1,032 | 939 | 385 | 13,041. |
| 11 to 20 | . | . | 2,811 | 2,252 | 699 | 574 | 409 | 175 | 6,920 |
| 21 to 50 | . |  | 1,918 | 1,705 | 502 | 381 | 307 | 121 | 4,934 |
| 51 to 100 |  | $\ldots$ | 692 | 638 | 171 | 154 | 100 | 41 | 1,796 |
| 101 to 200 | $\cdots$ |  | 353 | 348 | 96 | 64 | 42 | 18 | 921 |
| 201 to 300 | . |  | 113 | 113 | 47 | 23 | 17 | 5 | 318 |
| 301 to 400 | $\ldots$ |  | 58 | 44 | 11 | 11 | . | 4 | 128 |
| 401 to 500 |  | $\cdots$ | 26 | 29 | 8 | 7 | 3 | . | 73 |
| 501 to 750 |  |  | 46 | 52 | 10 | 7 | 3 | 4 | 122 |
| 751 to 1.000 |  | . | 24 | 12 | 6 | 2 | 1 | . | 45 |
| Over 1,000 |  | . | 35 | 20 | 3 | 10 | 1 | 4 | 73 |
| Total |  | . | 21,838 | 16,232 | 5,537 | 4,063 | 3,935 | 1,595 | 53,200 |

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

FACTORIES : AVERAGE NUMBER OF PERSONS EMPLOYED ACCORDING TO SIZE OF FACTORY, 1956-57.

| Size of Factory <br> (Persons employed). | N.S.W. | Vic. | Q'land. $\mid$ S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Average Number Employed during Period Worked.

| Under 4 |  | 16.497 | 11,726 | 3,862 | 2,946 | 3,894 | 1,408 | 40,333 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 |  | 7,280 | 4,992 | 2,304 | 1,532 | 640 | 584 | 17,332 |
| 5 to 10 |  | 36,028 | 27,444 | 10,853 | 7,188 | 6,112 | 2,692 | 90,317 |
| 11 to 20 |  | 40,879 | 33,219 | 10,272 | 8,323 | 5,796 | 2,598 | 101,087 |
| 21 to 50 |  | 59,758 | 53,729 | 15,531 | 12,075 | 9,571 | 3,790 | 154,454 |
| 51 to 100 |  | 48,175 | 44,427 | 12,135 | 10,906 | 6,970 | 2,907 | 125,520 |
| 101 to 200 |  | 49,279 | 48,377 | 13,482 | 9,208 | 5,717 | 2,547 | 128,610 |
| 201 to 300 |  | 27,439 | 27,239 | 11,352 | 5,532 | 4,022 | 1,312 | 76,896 |
| 301 to 400 |  | 20,243 | 14,917 | 3,618 | 3,781 |  | 1,424 | 43,983 |
| 401 to 500 |  | 11,361 | 12,852 | 3,724 | 3,185 | 1,285 |  | 32,407 |
| 501 to 750 |  | 28,147 | 31,938 | 5,732 | 4,291 | 1,700 | 2,631 | 74,439 |
| 751 to 1,000 | . | 20,764 | 10,459 | 5,311 | 1,896 | 844 |  | 39,274 |
| Over 1,000 |  | 74,471 | 35,194 | 5,690 | 21,616 | 2,985 | 6,307 | 146,263 |
| Total | . | 440,321 | 356,513 | 103,866 | 92,479 | 49,536 | 28,200 | 1,070,915 |
| Average per Factory |  | 20.17 | 21.96 | 18.76 | 22.76 | 12.59 | 17.68 | 20.13 |

3. Australia, 1938-39 and 1952-53 to 1956-57.-In the following table, factories in Australia are classified in broad groups for a series of years according to the number of persons employed.

## FACTORIES : CLASSIFICATION ACCORDING TO NUMBER OF PERSONS EMPLOYED, AUSTRALIA.



## § 4. Power Equipment in Factories.

1. General.-Since 1936-37, statistics of power equipment in factories relate to the " rated horse-power" of engines ordinarily in use and engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of Central Electric Stations are collected in greater detail. To avoid duplication, it is essential that some distinction should be made between Central Electric Stations and other classes of industries. In the following tables, Central Electric Stations have been treated separately from other factories.

In 1956-57, 420 factories were recorded as using no power other than manual, the distribution of these factories among the various industries being as follows:-Fibrous Plaster and Products, 26; Galvanized Ironworking, Tinsmithing, 17; Tailoring and Readymade Clothing, 102; Dressmaking, 9; Millinery, 7; Bakeries, 25; Cabinet and Furniture Making, 6; all other industries, 228.
2. Rated Horse-power of Engines in Factories other than Central Electric Stations.The following table shows the number of factories and the total rated horse-power of engines and electric motors ordinarily in use and in reserve or idle during 1956-57:-

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS, 1956-57.

(a) Includes Gas Works but excludes Central Electric Stations. (b) Excludes motors driven by electricity generated in factories not classified as Central Electric Stations.
3. Rated Horse-power of Engines and Electric Motors Ordinarily in Use.-(i) According to Type, States. Particulars of the types and the total rated horse-power of engines, etc., ordinarily in use in each State are given below:-

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, 1956-57.

| State. |  | Steam. |  | Internal Combustion. |  |  | Water. | Motors driven by Electricity. |  | Total. (b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Recíprocating. | Turbine. | Gas. | Petrol or Other Light Oils. | Heavy Oils. |  | Purchased. | Own Generation. (c) |  |
| N.S.W. | $\ldots$ | 84,717 | 118,045 | 986 | 46,555 | 20,985 | 150 | 1,617,827 | 80,051 | 1,889,265 |
| Victoria | $\cdots$ | 22,905 | 81,270 | 1,764 | 27,750 | 14,330 | 1,079 | 1,190,000 | 60,435 | 1,339,098 |
| Queensland | . | 85,085 | 55,553 | 2,615 | 12,821 | 17,004 | . $\cdot$, | -311,052 | 87,967 | 484,130 |
| S. Australis | $\cdots$ | 9,468 | 11,050 | 1,170 | 7,421 | 11,237 | 10 | 326,311 | 27,082 | 366,667 |
| W. Australia | - | 11,167 | 10,638 | 1,393 | 15,788 | 9,973 |  | 190,000 | 5,170 | 238,959 237907 |
| Tasmania | . | 1,533 | 3 | 45 | 10,198 | 531 | 192 | 225,405 | 3 | 237.907 |
| Australia | $\cdots$ | 214,875 | 276,559 | 7,973 | 120,533 | 74,060 | 1,431 | 3,860,595 | 260,708 | 4,556,026 |

[^0](ii) According to Type, Australia. In the following table, details of the total rated horse-power of the various types of engines in use are given for Australia for the years 1938-39, and 1952-53 to 1956-57.

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

(a) Includes Gas Works but excludes Central Electric Stations.
(b) Excludes particulars in column (c).
(iii) In Classes of Industry, 1956-57. The next table shows the total rated horsepower of engines and electric motors ordinarily in use in the various classes of industry in each State.

FACTORIES $(a)$ : TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE $(b)$, 1956-57.

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products | 81,685 | 60,215 | 16,632 | 20,748 | 16,200 | 14,988 | 210,468 |
| II. Bricks, Pottery, Glass, etc. . . | 50,074 | 32,889 | 8,558 | 9,344 | 10,603 | 2,141 | 113,609 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 138,436 | 136,311 | 10,029 | 20,656 | 39,617 | 10,708 | 355,757 |
| IV. Industrial Metals, Machines, Conveyances | 948,529 | 391,469 | 90,835 | 173,125 | 65,267 | 58,479 | 1,727,704 |
| V. Precious Metals, Jewellery, | rerer | 391,469 5,263 | 90,835 1,158 | 17,125 1,132 | 65,267 630 | 58,479 | $1,727,704$ 13,297 |
| VI. Textites and Textile Goods (not Dress) | 54,247 | 128,613 | 6,932 | 7,921 | 2,790 | 6,873 | 207,376 |
| VII. Skins and Leather (not Clothing or Footwear) | 18,069 | 20,152 | 5,713 | 5,641 | 2,883 | 525 | 52,983 |
| VIII. Clothing (except Knitted) - | 23,240 | 30,799 | 4,346 | 3,308 | 2,467 | 955 | 65,115 |
| IX. Food, Drink and Tobacco .. | 210,815 | 200,943 | 214,194 | 56,951 | 37,297 | 18,979 | 739,179 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving | 177,256 | 122,310 | 95,366 | 35,126 | 49,003 | 40,971 | 520,032 |
| XI. Furniture of Wood, Bedding, etc. | 16,892 | 16,607 | 8,736 | 6,564 | 3,991 | 1,545 | 54,335 |
| XII. Paper, Stationery, Printing, Book binding, etc. | 67,264 | 94,915 | 9,644 | 14,690 | 5,454 | 80,821 | 272,788 |
| XIII. Rubber .. . | 53,783. | 55,246 | 8,863 | 3,795 | 733 | 320 | 122,740 |
| XIV. Musical Instruments | 2,550 | 522 | 52 | 13 | 8 |  | 3,145 |
| XV. Miscellaneous Products | 22,183 | 27,028 | 629 | 2,043 | 831 | 411 | 53,125 |
| Total, Classes I. to XV. . . | 1,870,072 | 1,323,282 | 481,687 | 361,057 | 237,774 | 237,781 | 4,511,653 |
| XVI. Gas Works | 19,193 | 15,816 | 2,443 | 5,610 | 1,185 | 126 | 44,373 |
| Grand Total | 1,889,265 | 1,339,098 | 484,130 | 366,667 | 238,959 | 237,907 | 4,556,026 |

4. Capacity of Engines and Generators installed in Central Electric Stations.-(i) According to Type, Australia. Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1956-57 are given in the following table:-
CENTRAL ELECTRIC STATIONS: POWER EQUIPMENT, AUSTRALIA, 1956-57.

| Particulars. | Capacity of Engines and Generators. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Steam. |  | Internal Combustion. |  |  | Water. | Total. |
|  | Reciprocating. | Turbine. | Gas. | Petrol or Other Light Oils. | Heavy Oils. |  |  |
| Engines installed . . Rated H.P. | 6,140 | 4,904,302 | 7,115 | 13,816 | 344,356 | 1,214,008 | 6,489,737 |
| Generators installedKilowatt capacity- |  |  |  |  |  |  |  |
| Total installed .. kW | 4,612 | 3,585,597 | 5,105 | 8.535 | 218,875 | 881,881 | 4,704,605 |
| Effective capacity .. " | 4,224 | 3,313,182 | 3,691 | 6,857 | 199,810 | 846,995 | 4,374,759 |
| Horse-power equivalentTotal installed . . H.P. | 6,182 | 4,806.421 | 6,843 | 11,44 1 | 293,398 | 1,182,144 | 6,306,429 |
| Effective capacity .. " | 5,662 | 4,441,254 | 4,948 | 9,192 | 267,841 | 1,135,380 | 5,864,277 |

Note.-The number of establishments classified as Central Electric Stations in 1956-57 was 328.
(ii) States. Details of the capacity of engines and generators installed in Central Electric Stations in each State in 1956-57 are given in the next table.
CENTRAL ELECTRIC STATIONS: NUMBER AND POWER EQUIPMENT, 1956-57.

| Particulars. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Central Electric Stations No. |  | 82 | 53 | 56 | 41 | 87 | 9 | 328 |
| Engines installed .. Rated H.P. |  | 2,608,254 | 1,568,721 | 724,231 | (a) | 406,482 | (a) | 6,489,737 |
| Generators installed- <br> Kilowatt capacity- |  |  |  |  |  |  |  |  |
| Total installed | kW | 1,865,714 | 1,163,030 | 529,933 | (a) | 295,404 | (a) | 4,704,605 |
| Effective capacity | * | 1,734,625 | 1,093,568 | 423,905 | (a) | 282,703 | (a) | 4,374,759 |
| Horse-power equivalent- |  |  |  |  |  |  |  |  |
| Effective capacity | H.P. | 2,325,230 | 1,465,906 | 568,236 | (a) | 395,983 378,958 | (a) | 6,306,429 $\mathbf{5 , 8 6 4 , 2 7 7}$ |

(a) Not available for publication.

## § 5. Employment in Factories.

1. Number Employed.-(i) General. All persons employed in the manufacturing activities of a factory, including proprietors who work in their own business and "outworkers" (see para. 4 (ii), p. 163), are counted as factory employees, while those employed in selling and distributing, such as salesmen, travellers, collectors, carters employed solely on outward delivery of manufactured goods and retailing storemen, are excluded. Prior to 1945-46, the occupational grouping collected was (i) working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) enginedrivers and firemen; (v) workers in factory, skilled and unskilled; (vi) carters and messengers; and (vii) persons working regularly at home for the establishment. This grouping did not record separate details for technical staff (e.g., chemists, draftsmen, etc.) and supervisory staff and in 1945-46 the set-up on the collection form was amended to obtain the following groupings:-(i) Working proprietors; (ii) managerial and clerical staff including salaried managers and working directors; (iii) chemists, draftsmen and other laboratory and research staff; (iv) foremen and overseers ; (v) skilled and unskilled workers: (vi) carters (excluding delivery only), messengers and persons working regularly at home.

Prior to the year 1928-29, average 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 figures represent the equivalent average number employed over a full year of fifty-two weeks. The classification of factories according to the number of persons employed (see § 3, p. 155), however, is still based on the old method, but for all other purposes the average number engaged over the full year is used.
(ii) Australia. Particulars of the numbers employed, the increase in employment and the rate per cent. of such increase are given for the years 1938-39 and 1952-53 to 1956-57 in the following table :-

FACTORIES : EMPLOYMENT, AUSTRALIA.

| Year. | Mates. |  |  | Females. |  |  | Persons. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NumberEmployed. | Increase on Preceding Year. |  | Number ployed. | Increase on Preceding Year. |  | $\underset{\text { Number }}{\text { Numb }}$ ployed. | $\begin{aligned} & \text { Increase on } \\ & \text { Preceding Year. } \end{aligned}$ |  |
|  |  | Number | Per Cent. |  | Number | Per Cent. |  | Number | Per Cent. |
| 1938-39 | 412,591 | 3,989 | 0.98 | 152,515 | 1,957 | 1.30 | 565,106 | 5,946 | 1.06 |
| 1952-53 | 723,404 | -18,567 | -2.50 | 209,857 | -25,689 | -10.91 | 933,261 | - 44,256 | 4.53 |
| 1953-54 | 758,508 | 35,104 | 4.85 | 231.034 | 21,177 | 10.09 | 989,542 | 56,281 | 6.03 |
| 1954-55 | 788,691 | 30,183 | 3.98 | 242.391 | 11,357 | 4.92 | 1,031,082 | 41,540 | 4.20 |
| $1955-56$ $1956-57$ | 811,847 813,551 | 23,156 | 2.94 0.21 | 248,651 | 6,260 1,196 | 2.58 0.48 | 1,060,498 | 29,416 2 | 2.85 0.27 |
| 1956-57 | 813,551 |  |  | 249,847 | 1,196 | 0.48 | 1,063,398 | 2,900 | 0.27 |

Note.-Minus sign (-) indicates decrease.
(iii) States. The following table shows, for the same years, (a) the average number of persons employed in manufacturing industries in each State; (b) for each State, the percentage of the total number employed in factories in Australia; and (c) the number so employed per ten thousand of mean population in each State and Australia.

FACTORIES : EMPLOYMENT.

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

Average Number Employed during Full Year ( 52 Weeks).

| $1938-39$ | $\cdots$ | 228,781 | 201,831 | 54,110 | 43,371 | 23,211 | 13,802 | 565,106 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $1952-53$ | $\cdots$ | 380,213 | 310,759 | 93,123 | 80,483 | 45,188 | 23,495 | 933,261 |
| $1953-54$ | $\cdots$ | 402,595 | 331,277 | 98,119 | 85,503 | 47,459 | 24,589 | 989,542 |
| $1954-55$ | $\cdots$ | 419,810 | 346,648 | 100,293 | 89,565 | 49,314 | 25,452 | $1,031,082$ |
| $1955-56$ | $\cdots$ | 433,081 | 355,185 | 102,473 | 92,589 | 50,108 | 27,062 | $1,060,498$ |
| $1956-57$ | $\cdots$ | 436,369 | 355,204 | 103,426 | 91,981 | 48,748 | 27,670 | $1,063,398$ |

Percentage of Australian Total.

|  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1938-39$ | $\cdots$ | 40.48 | 35.72 | 9.58 | 7.67 | 4.11 | 2.44 | 100 |
| $1952-53$ | $\cdots$ | 40.74 | 33.30 | 9.98 | 8.62 | 4.84 | 2.52 | 100 |
| $1953-54$ | $\cdots$ | 40.68 | 33.48 | 9.92 | 8.64 | 4.80 | 2.48 | 100 |
| $1954-55$ | $\cdots$ | 40.71 | 33.62 | 9.73 | 8.69 | 4.78 | 2.47 | 100 |
| $1955-56$ | $\cdots$ | 40.84 | 33.49 | 9.66 | 8.73 | 4.73 | 2.55 | 100 |
| $1956-57$ | $\cdots$ | 41.04 | 33.40 | 9.73 | 8.65 | 4.58 | 2.60 | 100 |

FACTORIES : EMPLOYMENT-continued.

| Year. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Per 10,000 of Population. |  |  |  |  |  |  |  |
| 1938-39 | 836 | 1,078 | 537 | 729 | 497 | 581 | 815 |
| 1952-53 | 1,112 | 1,315 | 746 | 1,074 | 737 | 761 | 1,067 |
| 1953-54 | 1,182 | 1.367 | 754 | 1,088 | 753 | 795 | 1,112 |
| 1954-55 | 1,213 | 1,393 | 757 | 1.109 | 746 | 813 | 1,134 |
| 1955-56 | 1,229 | 1,385 | 758 | 1,110 | 750 | 848 | 1,138 |
| 1956-57 | 1,216 | 1,345 | 749 | 1,068 | 712 | 848 | 1,115 |

2. Rates of Increase, 1938-39 and 1952-53 to 1956-57. -The percentage increase on the average number of persons employed in the preceding year is shown below for each State :-

FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS EMPLOYED.

| Year. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | 1.74 | 0.02 | 3.82 | $-1.62$ | 0.34 | 4.80 | 1.06 |
| 1952-53 | -6.35 | -4.13 | $-1.30$ | -4.08 | 0.20 | -2.21 | -4.53 |
| 1953-54 | 5.89 | 6.60 | 5.36 | 6.24 | 5.03 | 4.66 | 6.03 |
| 1954-55 | 4.28 | 4.64 | 2.22 | 4.75 | 3.91 | 3.51 | 4.20 |
| 1955-56 | 3.16 | 2.46 | 2.17 | 3.38 | 1.61 | 6.33 | 2.85 |
| 1956-57 | 0.75 | 0.00 | 0.93 | -0.66 | $-2.71$ | 2.25 | 0.27 |

Note.-Minus sign (-) ind:cates decrease.
3. Persons Employed in Classes of Industry,-(i) Australia. The following table shows the average number of persons employed in factories in each industrial class in Australia for the years 1938-39 and 1952-53 to 1956-57 :-

FACTORIES : PERSONS EMPLOYED IN INDUSTRIAL CLASSES, AUSTRALIA.

| Class of Industr | 1938-39 | 1952-53. | 1953-54. | 1954-55 | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products | 10,343 | 18,752 | 18,748 | 20.56n | 20,893 | 20,3 |
| II. Bricks, Pottery, Glass, etc. | 15,709 | 19,571 | 21.708 | 22.549 | 22,914 | 22,162 |
| I. Chemicals, Dyes, Explosives, Oils, Grease | 19,816 | 36,139 | 37,988 | 41,32 | 44,718 | 45,753 |
| V. Industrial Metals, Machines, Conveyances |  | 376,39 | 397,713 | 422,124 | 444, | 7,405 |
| V. Precious Metals | 3,726 | 5,398 | 5,970 | 6,029 | 5,894 | 6,053 |
| VI. Textiles and Textile Goods (not Dress) | 46,082 | 60,087 | 69,482 | 69,046 | 68,356 | 70,176 |
| VII. Skins and Leather (not Clothing or Footwear) |  |  |  |  |  |  |
| VIII. Clothing (except Knitted) | 86,092 | 105,681 | 112,520 | 112,802 | 110,820 | 109,266 |
| IX. Food, Drink and Tobacco $\because$ Woid | 83,846 | 120,668 | 123,073 | 125,934 | 126,493 | 124,723 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving |  | 56,98 | 58,932 |  | 61,914 | 60,008 |
| XI. Furniture of Wood. Bedding, etc. | 15,287 | 20,353 | 20,975 | 21,342 | 21,508 | 21,258 |
| XII. Paper, Stationery, Printing, Book- | 39,913 | 53,219 | 56,119 | 59,777 | 62,713 | 64,719 |
| XIII. Rubber | 7.502 | 12,288 | 14,962 | 16,3 | 17,287 | 17,844 |
| XIV. Musical Instruments XV. Miscellaneous Products | 751 7,727 | 17,240 | 19,575 | 19,962 | 1,739 20,967 | 1,902 21.746 |
| Total, Classes /. 10 XV. | 555,577 | 918,171 | 974,006 | 1,015,052 | 1,044,300 | 1,046,787 |
| XVI. Heat. Light and Power | 9,429 | 15,090 | 15,536 | 16,030 | 16,198 | 16,611 |
| Grand Total. . | 565,106 | 933,261 | 989,542 | 1,031,082 | 1,060,498 | 063,398 |

(ii) States. Particulars of the numbers employed in each industrial class are shown in the following table for each State :-

FACTORIES : PERSONS EMPLOYED IN INDUSTRIAL CLASSES, 1956-57.

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aus. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatm:nt of Non-metallifeious Mine and Quarry Products | 865 | 6,398 | 1,827 | 1,909 | 1,536 | 783 | 20,318 |
| III. Bricks, Pottery, Glass, etc. $\because \cdot$ | 11,313 | 5,652 | 1,271 | 2,159 | 1,402 | 365 | 22,162 |
| II. Chemicals, Dyes. Explosives, Paints, Oils, Grease | 20,566 | 16,653 | 1,805 | 3,274 | 2,768 | 687 | 45,753 |
| Industrial Metals, Machines, Conveyances | 201,216 | 131,299 | 36,540 | 49,809 | 19,490 | ,051 | 5 |
| V. Precious Metals, Jewellery, |  |  |  |  |  |  |  |
| Pextiles and Textile | 2,437 | 2,605 | 334 | 426 | 231 | 20 | ,053 |
| (not Dress) $\because \ldots$ | 23,233 | 37,945 | 2,145 | 2,690 | 977 | 3,186 | 70,176 |
| II. Skins and Leather (not Clothing or Footwear) |  |  | 1,314 | 1,295 | 34 | 73 |  |
| VIII. Clothing (except Knitted) | 43,924 | 47,093 | 8,535 | 5,261 | 3,612 | 841 | 109,266 |
| IX. Food, Drink and Tobacco | 38,801 | 37,542 | 26,372 | 11,033 | 6,511 | 4,464 | 124,723 |
| wmills, Joinery, Boxes, et Wood Turning and Carvin | 20,05 | 15,093 | 10, | 4,787 | 898 | 3,495 | ,08 |
| XI. Furniture of Wood, Bedding, |  |  |  |  |  |  |  |
| etc. Stationery. ${ }^{\text {en Printing. }}$ | 8,191 | 6,312 | 2,924 | 2,044 | 1,301 | 486 | 58 |
| (il. Paper, Stationery, Prembinding, etc. | 27,569 | 21,619 | 5,394 | 3,949 | 2,551 | 3,637 | 64,719 |
| XIII. Rubber ... .. | 7,854 | 6,848 | 1,708 | 1,037 | 250 | 147 | 17,844 |
| XIV. Musical Instruments | 1,494 | 293 | 46 | 38 | 31 |  | 1,902 |
| XV. Miscellaneous Products | 9,510 | 10.313 | 595 | 719 | 410 | 199 | 21.746 |
| Total, Classes I. to XV. | 429,438 | 350,389 | 101,494 | 90,430 | 47,602 | 27,434 | 1,046,787 |
| XVI. Heat, Light and Power | 6,931 | 4,815 | 1,932 | 1,551 | 1,146 | 236 | 16,611 |
| Grand Total | 436,369 | 355,204 | 103,426 | 91,981 | 48,748 | 27,670 | 1,063,398 |

4. Persons Employed According to Occupational Grouping.-(i) General. In the following table, the average number of persons employed in each State during 1956-57 is classified according to occupational grouping. As mentioned previously, persons employed in factories are now classified on a basis different from that adopted prior to 1945-46. The nature of this change is indicated in para. 1 of this section (see p. 159).

FACTORIES : PERSONS EMPLOYED-OCCUPATIONAL GROUPING, 1956-57.

| State. |  | Average Number of Persons Employed. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Working Proprietors. | Managerial and Clerical Staff, etc.(a) | Chemists, Drafts. men, etc. | $\begin{gathered} \text { Foremen } \\ \text { and } \\ \text { overseers. } \end{gathered}$ | Workers in Factory (Skilled and Unskilled). | Carters (excluding Delivery only) and Messengers. etc. (b) | Total. |
| New South Wales |  | 16,029 | 52,280 | 6,380 | 18,976 | 340,645 | 2,059 | 435,369 |
| Victoria |  | 13,967 | 40,279 | 5,585 | 15,498 | 277,507 | 2,368 | 355,204 |
| Queensland |  | 4,925 | 10,230 | 1,002 | 3,937 | 82,802 | 530 | 103,426 |
| South Australia |  | 2,829 | 10,903 | 1,557 | 4,229 | 72,104 | 359 | 91,981 |
| Western Australia |  | 2,715 | 4,155 | 454 | 2,089 | 39,236 | 99 | 48,748 |
| Tasmania |  | 1,013 | 2,749 | 571 | 1,333 | 21,873 | 131 | 27,670 |
| Total Males |  | 36,455 | 74,275 | 14,165 | 42,781 | 641,308 | 4,567 | 813,551 |
| Total Females |  | 5,023 | 46,321 | 1,384 | 3,281 | 192,859 | 979 | 249,847 |
| Total Persons | $\cdots$ | 41,478 | 120,596 | 15,549 | 46,062 | 834,167 | 5,546 | 1,063,398 |

(a) Includes salaried managers and working directors.
at home.
(b) Includes persons working regularly
(ii) Outworkers. The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and embraces only persons to whom work is given out by factories to be done at home. Owing to the amended employment groupings adopted in 1945-46, persons working regularly at home for factories are now included with carters, messengers and others and separate details are no longer available. The number of " outworkers" employed by factories in 1944-45 was 1,049.
5. Monthly Employment, 1938-39 and 1952-53 to 1956-57.-(i) Australia. The following table shows the number of persons (excluding working proprietors) employed in factories on the pay-day nearest to the 15th of each month for the year 1938-39 and on the last pay-day of the month in the later years.

FACTORIES: MONTHLY EMPLOYMENT, AUSTRALIA.
(Excluding Working Proprietors.)

| Month. |  |  |  | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Males. |  |  |  |  |  |  |  |  |  |
| July |  |  |  | 387,693 | 688,670 | 704,109 | 739,450 | 768,382 | 775,580 |
| August | . |  |  | 389,979 | 682,882 | 707,438 | 741,435 | 770,312 | 774,506 |
| September |  |  |  | 391,576 | 680,026 | 710,246 | 743,638 | 771.715 | 774,119 |
| October |  |  |  | 393,977 | 679,901 | 715,338 | 746,139 | 774,071 | 774,455 |
| November | . |  |  | 395,192 | 680,398 | 719,230 | 750,285 | 777,304 | 777,127 |
| December |  |  |  | 394,438 | 678,174 | 716,202 | 747,230 | 772,509 | 772,479 |
| January | $\cdots$ | $\cdots$ | $\cdots$ | 385,742 | 680,298 | 722,277 | 750,823 | 774,077 | 773,419 |
| February |  |  |  | 392,056 | 689,012 | 727,754 | 755,456 | 778,552 | 779,646 |
| March |  |  |  | 395,146 | 694,516 | 732,000 | 757,956 | 779,527 | 780,973 |
| April |  |  |  | 391,005 | 697,202 | 731,923 | 760,139 | 780,418 | 777,262 |
| May | $\cdots$ | $\cdots$ | . | 393,609 | 698,711 | 734,340 | 761,555 | 780,252 | 779,757 |
| June |  |  |  | 390,963 | 701,500 | 738,002 | 763,488 | 777,968 | 780,156 |

Females.

| July |  |  |  | 147,282 | 201,464 | 212,322 | 231,222 | 238,883 | 240,918 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| August |  |  |  | 149,294 | 200,393 | 214,644 | 232,603 | 240,857 | 241,429 |
| September |  |  |  | 151,159 | 199,910 | 218,078 | 234,818 | 243,289 | 243,199 |
| October |  |  |  | 152,473 | 201,107 | 222,255 | 236,930 | 244,840 | 245,130 |
| November |  |  |  | 152.806 | 201,346 | 224,672 | 238,146 | 244,582 | 245,006 |
| December |  |  |  | 151,165 | 199,707 | 224,100 | 236,804 | 242,366 | 242,175 |
| January |  |  |  | 141,853 | 201,596 | 228,838 | 236,664 | 240,574 | 243,191 |
| February |  |  |  | 151,883 | 209,939 | 232,678 | 242,008 | 247,841 | 248,336 |
| March |  |  |  | 154,854 | 213,470 | 236,354 | 242,573 | 247,209 | 250,728 |
| April |  |  |  | 152,614 | 211,725 | 234,175 | 239,460 | 244,588 | 245,873 |
| May |  |  |  | 150,693 | 211,392 | 232,333 | 238,450 | 243,989 | 244,055 |
| June | . |  |  | 148,601 | 211,551 | 232,009 | 238,529 | 242,548 | 242,966 |

Persons.

| July |  |  |  | 534,975 | 890,134 | 916,431 | 970,672 | 1,007,265 | 1,016,498 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| August |  |  |  | 539,273 | 883,275 | 922,082 | 974,038 | 1,011,169 | 1,015,935 |
| September |  |  |  | 542,735 | 879,936 | 928,324 | 978,456 | 1,015,004 | 1,017,318 |
| October |  |  |  | 546,450 | 881,008 | 937,593 | 983,069 | 1,018,911 | 1,019,585 |
| November |  |  |  | 547,998 | 881,744 | 943,902 | 988,431 | 1,021,886 | 1,022,133 |
| December |  |  |  | 545,603 | 877,881 | 940,302 | 984,034 | 1,014,875 | 1,014,654 |
| January |  |  | $\ldots$ | 527,595 | 881,894 | 951,115 | 987,487 | 1,014,651 | 1,016,610 |
| February |  |  |  | 543,939 | 898,951 | 960,432 | 997,464 | 1,026,393 | 1,027,982 |
| March |  |  |  | 550,000 | 907,986 | 968,354 | 1.000,529 | 1,026,736 | 1,031,701 |
| April |  |  |  | 543,619 | 908,927 | 966,098 | 999,599 | 1,025,006 | 1,023,135 |
| May |  |  |  | 544,302 | 910,103 | 966,673 | 1,000,005 | 1,024,241 | 1,023,811 |
| June | $\ldots$ | . |  | 539,564 | 913,051 | 970,011 | 1,002,017 | $1,020,516$ | 1,023,122 |

(ii) States. Particulars of the numbers employed in each State on the last pay-day of each month in 1956-57 are shown in the following table :-

FACTORIES: MONTHLY EMPLOYMENT, 1956-57.

## (Excluding Working Proprietors.)



Females.

|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| July | $\ldots$ | $\ldots$ | 102,990 | 93,961 | 16,769 | 15,529 | 6,409 | 5,260 | 240,918 |
| August | $\ldots$ | $\ldots$ | 103,388 | 94,049 | 16,952 | 15,470 | 6,401 | 5,169 | 241,429 |
| September | $\ldots$ | $\ldots$ | 104,370 | 94,830 | 17,141 | 15,403 | 6,522 | 4,933 | 243,199 |
| October | $\ldots$ | $\ldots$ | 105,744 | 95,585 | 17,058 | 15,401 | 6,529 | 4,813 | 245,130 |
| November | $\ldots$ | $\ldots$ | 105,683 | 95,324 | 16,944 | 15,679 | 6,544 | 4,832 | 245,006 |
| December | $\ldots$ | $\ldots$ | 104,193 | 94,000 | 16,631 | 15,913 | 6,497 | 4,941 | 242,175 |
|  |  |  |  |  |  |  |  |  |  |
| January | $\ldots$ | $\ldots$ | 103,411 | 93,549 | 16,703 | 17,667 | 6,496 | 5,365 | 243,191 |
| February | $\ldots$ | $\ldots$ | 104,820 | 96,929 | 17,624 | 17,162 | 6,564 | 5,237 | 248,336 |
| March | $\ldots$ | $\ldots$ | 105,678 | 98,440 | 17,614 | 17,116 | 6,680 | 5,200 | 250,728 |
| April | $\ldots$ | $\ldots$ | 104,654 | 96,184 | 16,839 | 16,302 | 6,562 | 5,332 | 245,873 |
| May | $\ldots$ | $\ldots$ | 104,525 | 95,101 | 16,708 | 15,817 | 6,489 | 5,414 | 244,055 |
| June | $\ldots$ | $\ldots$ | 104,642 | 94,333 | 16,793 | 15,775 | 6,262 | 5,161 | 242,966 |
|  |  |  |  |  |  |  |  |  |  |

Persons.

| July | $\ldots$ | $\ldots$ | 415,301 | 339,956 | 100,080 | 89,157 | 45,772 | 26,232 | $1,016,498$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| August | $\ldots$ | $\ldots$ | 415,863 | 339,836 | 99,643 | 88,792 | 45,601 | 26,200 | $1,015,935$ |
| September | $\ldots$ | $\ldots$ | 417,262 | 339,474 | 99,894 | 88,570 | 46,098 | 26,020 | $1,017,318$ |
| October | $\ldots$ | $\ldots$ | 419,523 | 339,902 | 99,616 | 88,408 | 46,143 | 25,993 | $1,019,585$ |
| November | $\ldots$ | $\ldots$ | 420,654 | 341,071 | 99,760 | 88,492 | 46,081 | 26,115 | $1,022,133$ |
| December | $\ldots$ | $\ldots$ | 418,618 | 339,225 | 95,612 | 88,720 | 45,890 | 26,589 | $1,014,654$ |
|  |  |  |  |  |  |  |  |  |  |
| January | $\ldots$ | $\ldots$ | 419,891 | 338,769 | 93,126 | 91,413 | 45,967 | 27,444 | $1,016,610$ |
| February | $\ldots$ | $\ldots$ | 422,760 | 343,807 | 97,036 | 90,813 | 46,539 | 27,027 | $1,027,982$ |
| March | $\ldots$ | $\ldots$ | 424,034 | 346,016 | 97,758 | 90,347 | 46,746 | 26,800 | $1,031,701$ |
| April | $\ldots$ | $\ldots$ | 421,850 | 342,466 | 96,616 | 89,163 | 46,313 | 26,727 | $1,023,135$ |
| May | $\ldots$ | $\ldots$ | 422,659 | 341,267 | 98,256 | 88,538 | 46,311 | 26,780 | $1,023,811$ |
| June | $\ldots$ | $\ldots$ | 42,466 | 340,147 | 99,958 | 88,328 | 45,818 | 26,405 | $1,023,122$ |
|  |  |  |  |  |  |  |  |  |  |

6. Distribution of Employees According to Age.-The extension of statistics of employment in factories, decided upon at the Conference of Australian Statisticians held in 1945, permits of a distribution of employees (excluding working proprietors) into seven age-groups from 1945-46 onwards, instead of three as in previous years. The particulars are collected as at June. The number employed in each age-group on the last pay-day in June, 1956 and 1957, are given below :-

FACTORIES : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1956 AND 1957.

| Age Group. | (Excluding Working Proprietors.) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | June, 1956. |  |  | June, 1957. |  |  |
|  |  | Males. | Females. | Persons. | Males. | Femates. | Persons. |
| Under 16 years | $\cdots$ | 9,061 | 6,557 | 15,618 | 9,158 | 6,828 | 15,986 |
| 16 years | $\cdots$ | 13,025 | 8,163 | 21,188 | 13,310 | 8,292 | 21,602 |
| 17 | . . | 14,985 | 9,390 | 24,375 | 15,289 | 9,276 | 24,565 |
| 18 ", | - | 15,348 | 10,102 | 25,450 | 16,104 | 9,715 | 25,819 |
| 19 | . | 14,884 | 9,072 | 23,956 | 15,219 | 8,986 | 24,205 |
| 20 " | $\cdots$ | 13,635 | 7,801 | 21,436 | 14,162 | 7,959 | 22,121 |
| 21 " and over | . | 697,030 | 191,463 | 888,493 | 696,914 | 191,910 | 888,822 |
| Total | - | 777,968 | 242,548 | 1,020,516 | 780,156 | 242,966 | 1,023,122 |

The following table shows the age distribution in sexes for Australia in June, 1939, and 1953 to 1957.

FACTORIES : DISTRIBUTION OF EMPLOYEES IN JUNE, ACCORDING TO AGE, AUSTRALIA.
(Excluding Working Proprietors.)

| In June. | Under 16 Years | 16 Years. | 17 Years. | 18 Years. | 19 Years. | 20 Years. | 21 Years and Over. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Males. |  |  |  |  |  |  |  |  |
| 1939(a) | 16,109 |  |  | 76,418 |  |  | 298,436 | 390,963 |
| 1953 | 9,011 | 12,451 | 13,8931 | 13,655 | 12,383 | 12,293 | 627,814 | 701,500 |
| 1954 | 9,294 | 12,874 | 14,947 | 14,591 | 12,971 | 12,426 | 660,899 | 738,002 |
| 1955 | 9,093 | 13,137 | 14,694 | 15,341 | 13,772 | 12,838 | 684,613 | 763,488 |
| 1956 | 9,061 | 13,025 | 14,985 | 15,348 | 14,884 | 13,635 | 697,030 | 777,968 |
| 1957 | 9,158 | 13,310 | 15,289 | 16,104 | 15,219) | 14,162 | 696,914 | 780,156 |


| Females. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1939(a) |  | 15,497 | 56,273 |  |  |  |  | $\begin{array}{r} 76,831 \\ 161,497 \end{array}$ | $\begin{aligned} & 148,601 \\ & 211,551 \end{aligned}$ |
| 1953 | .. | 6,874 | 8,303 | 9,072 | 9,237 | 8,623 | 7,945 |  |  |
| 1954 | $\ldots$ | 7,228 | 8,945 | 9,899 | 9,702 | 8,719 | 7,807 | 179,709 | 232,009 |
| 1955 | . | 6,605 | 8,547 | 9,902 | 9,994 | 8,600 | 7,710 | 187,171 | 238,529 |
| 1956 | . | 6,557 | 8,163 | 9,390 | 10,102 | 9,072 | 7,801 | 191,463 | 242,548 |
| 1957 | . | 6,828 | 8,292 | 9,276 | 9,715 | 8,986 | 7,959 | 191,910 | 242,966 |

Persons.

| 1939(a) |  | 31,606 | 132,691 |  |  |  |  | 375,267 | 539,564 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1953 |  | 15,885 | 20,754 | 22,965 | 22,892 | 21,006 | 20,238 | 789,311 | 913,051 |
| 1954 |  | 16,522 | 21,819 | 24,846 | 24,293 | 21,690 | 20,233 | 840,608 | 970,011 |
| 1955 |  | 15,698 | 21,684 | 24,596 | 25,335 | 22,372 | 20,548 | 871,784 | 1,002,017 |
| 1956 | . | 15,618 | 21,188 | 24,375 | 25,450 | 23,956 | 21,436 | 888,493 | 1,020,516 |
| 1957 | . | 15,986 | 21,602 | 24,565 | 25,819 | 24,205 | 22,822 | 888,822 | 1,023,122 |

(a) Details for individual ages 16-20 years not available separately.

## § 6. Sex Distribution in Factories.

1. Average Number of Males and Females Employed. The following table shows the average number of males and females employed in factories in each State for 1938-39 and 1952-53 to 1956-57 :-

FACTORIES : MALES AND FEMALES EMPLOYED.

| State. | $1938-39$. | $1952-53$. | $1953-54$. | $1954-55$. | $1955-56$. | $1956-57$. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Males.

| New South Wales |  | 167,172 | 291,704 | 305,040 | 316,673 | 327,106 | 329,386 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Victoria |  | 136,218 | 228,724 | 240,698 | 251,675 | 258,006 | 258,119 |
| Queensland | $\cdots$ | 43,941 | 77,627 | 81,425 | 83,290 | 85,123 | 85,899 |
| South Australia |  | 35,406 | 67,114 | 70,657 | 73,714 | 76,144 | 75,543 |
| Western Australia |  | 18,704 | 38,614 | 40,439 | 42,294 | 43,340 | 42,122 |
| Tasmania |  | 11,150 | 19,621 | 20,249 | 21,045 | 22,128 | 22,482 |
| Australia |  | 412,591 | 723,404 | 758,508 | 788,691 | 811,847 | 813,551 |

Females.

| New South Wales |  | 61,609 | 88,509 | 97,555 | 103,137 | 105,975 | 106,983 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Victoria |  | 65,613 | 82,035 | 90,579 | 94,973 | 97,179 | 97,085 |
| Queensland |  | 10,169 | 15,496 | 16,694 | 17,003 | 17,350 | 17,527 |
| South Australia |  | 7,965 | 13,369 | 14,846 | 15,851 | 16,445 | 16,438 |
| Western Australia |  | 4,507 | 6,574 | 7,020 | 7,020 | 6,768 | 6,626 |
| Tasmania |  | 2,652 | 3,874 | 4,340 | 4,407 | 4,934 | 5,188 |
| Australia | . | 152,515 | 209,857 | 231,034 | 242,391 | 248,651 | 249,847 |

2. Rate of Variation for each Sex.-The percentages of increase or decrease on the average numbers of males and females employed in the preceding year are shown below for the years 1938-39 and 1952-53 to 1956-57 :-

FACTORIES : ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES EMPLOYED.

| State. | $1938-39$. | $1952-53$. | $1953-54$. | $1954-55$. | $1955-56$. | $1956-57$. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Males.

| New South Wales |  | 1.69 | -4.30 | 4.57 | 3.81 | 3.29 | 0.70 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Victoria |  | 0.04 | -2.13 | 5.24 | 4.56 | 2.52 | 0.04 |
| Queensland |  | 3.79 | -0.06 | 4.89 | 2.29 | 2.20 | 0.91 |
| South Australia |  | -2.39 | -1.37 | 5.28 | 4.33 | 3.30 | $-0.79$ |
| Western Australia |  | -0.30 | 2.12 | 4.73 | 4.59 | 2.47 | -2.81 |
| Tasmania |  | 4.40 | -1.57 | 3.20 | 3.93 | 5.15 | 1.60 |
| Australia | . | 0.98 | -2.50 | 4.85 | 3.98 | 2.94 | 0.21 |

Females.

| New South Wales |  | 1.88 | -12.53 | 10.22 | 5.72 | 2.75 | 0.95 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Victoria |  | -0.03 | $-9.30$ | 10.42 | 4.85 | 2.32 | -0.10 |
| Queensland |  | 3.96 | $-7.08$ | 7.73 | 1.85 | 2.04 | 1.02 |
| South Australia |  | 1.98 | -15.72 | 11.05 | 6.77 | 3.75 | -0.04 |
| Western Australia |  | 3.06 | $-9.76$ | 6.78 |  | $-3.59$ | -2.10 |
| Tasmania |  | 6.51 | $-5.35$ | 12.03 | 1.54 | 11.96 | 5.15 |
| Australia | . | 1.30 | -10.91 | 10.09 | 4.92 | 2.58 | 0.50 |

Note.-Minus sign (-) indicates decrease.
3. Masculinity of Persons Employed 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 persons employed in each State. The following table shows particulars for the years 1938-39 and 1952-53 to 1956-57 :-

FACTORIES : MASCULINITY(a) OF PERSONS EMPLOYED.

|  | Year. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | * | 271 | 208 | 432 | 445 | 415 | 420 | 271 |
| 1952-53 | . | 330 | 279 | 501 | 502 | 587 | 506 | 345 |
| 1953-54 | - | 313 | 266 | 488 | 476 | 576 | 467 | 328 |
| 1954-55 | . | 307 | 265 | 490 | 465 | 602 | 478 | 325 |
| 1955-56 | . . | 309 | 265 | 491 | 463 | 640 | 448 | 327 |
| 1956-57 | * | 308 | 266 | 490 | 460 | 636 | 433 | 326 |

(a) Number of males per 100 females.

For a number of years prior to 1926-27, there were on the average 300 males employed in factories for every 100 females, but by 1932-33, as a result of the particularly severe effect of the depression on the heavier industries where males predominate in number, there were only 239 males employed to every 100 females. With the subsequent recovery of employment in the heavier industries, the proportion of males per 100 females increased to 271 in 1937-38 and 1938-39. The enlistment of men in the armed services and the expansion of industry and the consequential absorption of women brought about by the 1939-45 War caused a decrease in masculinity from 1938-39 to 1943-44. However, following the cessation of hostilities in 1945 and the return of servicemen to civilian life, the number of females employed in factories declined and masculinity increased. In 1956-57, there were 326 males to every 100 females employed in factories.
4. Employment of Females in Particular Industries.-(i) General. The majority of females in manufacturing industries are employed in four classes, namely :-IV., Industrial Metals, Machines, etc. ; VI., Textiles ; VIII., Clothing ; and IX., Food, Drink and Tobacco. In 1956-57, these industries accounted for 78.37 per cent. of all females in factories. In two classes only did the number of females exceed the number of males, namely, in Class VI., Textiles, where there were 133 females to every 100 males and in Class VIII., Clothing, with 233 females to every 100 males. The following table shows the average number of males and females employed in each of the four classes in 1956-57 :-

MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, 1956-57.

| Class. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Males. |  |  |  |  |  |  |  |
| IV. Industrial Metals, etc. ${ }_{\text {VI }}$ Textiles and Textile Goods | 177,312 | 116,890 | 34,242 | 44,567 | 18,616 | 8,541 | 400,168 |
| (not Dress) | 9,436 | 16,783 | 758 | 1,343 | 545 | 1,230 | 30,095 |
| VIII. Clothing (except Knitted) | 12,513 | 14,536 | 2,466 | 1,723 | 1,210 | 355 | 32,803 |
| IX. Food, Drink and Tobacco . | 26,982 | 27,191 | 22,472 | 7,892 | 5,114 | 3,102 | 92,753 |
| All Other Classes .. . | 103,143 | 82,719 | 25,961 | 20,018 | 16,637 | 9,254 | 257,732 |
| Total | 329,386 | 258,119 | 85,899 | 75,543 | 42,122 | 22,482 | 813,551 |
| Females. |  |  |  |  |  |  |  |
| IV. Industrial Metals, etc. ${ }^{\text {VI. Textiles and Textile Goods }}$ | 23,904 | 14,409 | 2,298 | 5,242 | 874 | 510 | 47,237 |
| VI. Textiles and Textile Goods (not Dress) | 13,797 | 21,162 | 1,387 | 1,347 | 432 | 1,956 | 40,081 |
| VIII. Clothing (except Knitted) -. | 31,411 | 32,557 | 6,069 | 3,538 | 2.402 | + 486 | 76.463 |
| IX. Food, Drink and Tobacco .. | 11,819 | 10,351 | 3,900 | 3,141 | 1,397 | 1,362 | 31,970 |
| All Other Classes .. | $\frac{26,052}{106,983}$ | 18,606 | $\begin{array}{r}\text { 3,873 } \\ \hline 17,527\end{array}$ | 3,170 | $\frac{1,521}{6,626}$ | - 874 | $\begin{array}{r}\text { 54,096 } \\ \hline 249,847\end{array}$ |
| Total .. | 106,93 | 97,085 | 17,527 | 16,438 | 6,626 | 5,188 | 249,847 |

(ii) Females Employed in Clothing Manufacture. The employment of females in the several industries of Class VIII., Clothing, the class in which the largest number of females is employed, and the relation of their number to that of the males so employed are shown in the following table.

EMPLOYMENT IN CLOTHING INDUSTRIES, FEMININITY(a), 1956-57.


(a) Number of females per 100 males.

## § 7. Child Labour in Factories.

1. Conditions of Child Labour.-The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. The object of the restrictions imposed is to ensure, amongst other things, that a proper period shall be devoted to primary education, and that the early years of labour shall not exhaust the worker before the attainment of full growth.
2. Number of Children Employed, 1939, 1956 and 1957.-In the returns for the various States, the term " child " denotes any person under sixteen years of age. The decline in the number of children employed from the peak of 33,553 reached in June, 1940, to 15,986 in June, 1957, was probably caused by several factors, including (i) the raising of the school leaving age in New South Wales and Tasmania, (ii) fewer children available for employment owing to the decline in the birth rate and (iii) the high level of employment which enabled parents to keep their children at school beyond the statutory leaving age.

The following table shows the number of children of each sex employed in manufacturing industries in June of the years mentioned.

FACTORIES : CHILDREN( $a$ ) EMPLOYED, JUNE.

| State | 1939. |  |  | 1956. |  |  | 1957. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Persons. | Males. | Females. | Persons. | Males. | Females. | Persons. |
| New South Wales | 5,759 | 7,084 | 12,843 | 2,538 | 1,860 | 4,398 | 2,584 | 1,981 | 4,565 |
| Victoria | 6,167 | 5,005 | 11,172 | 2,888 | 2,338 | 5,226 | 2,966 | 2,480 | 5,446 |
| Queensland .. | 1.790 | 1,334 | 3,124 | 1,749 | 1,199 | 2,948 | 1,711 | 1,205 | 2,916 |
| South Australia | 1,296 | 1,053 | 2,349 | 872 | 723 | 1,595 | 878 | 724 | 1,602 |
| Western Australia | 705 | 521 | 1,226 | 901 | 361 | 1,262 | 898 | 327 | 1,225 |
| Tasmania | 392 | 500 | 892 | 113 | 76 | 189 | 121 | 111 | 232 |
| Australia | 16,109 | 15,497 | 31,606 | 9,061 | 6,557 | 15,618 | 9,158 | 6,828 | 15,986 |

(a) Under sixteen years of age.
3. Industries Employing Child Labour.-The distribution of children employed in factories in June, 1957, and the proportion of children employed to total employees are given in the following table according to the class of industry :-

FACTORIES : CHILDREN( $a$ ) EMPLOYED, BY CLASSES, AUSTRALIA, JUNE, 1957.

|  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Class of Industry. |

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

## § 8. Costs of Production and Value of Output.

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

1. General.-The importance of the manufacturing industries of Australia is indicated by the fact that the total value of their output for $1956-57$ was $£ 4,022,413,044$, of which $£ 2,247,183,977$ was the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and $£ 153,110,187$ the value of the power, fuel and light used. The difference between the sum of the last two amounts and the value of output, namely, $£ 1,622,119,880$, 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 1956-57 was $£ 891,089,642$. This figure, which excludes amounts drawn by working proprietors, was the highest ever recorded and shows an increase of $£ 37,620.170$ or 4.41 per cent. on that for the previous year.
2. Salaries and Wages Paid.-(i) In Classes of Industry, 1956-57. The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table.

FACTORIES : SALARIES AND WAGES PAID, 1956-57.
( $\left.{ }^{\prime} \mathbf{0 0 0}.\right)$

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Treatment of Non-metallifecous Mine and Quarry Products | 7,832 | 5,919 | 1,515 | 1,766 | 1,263 | 676 | 18,971 |
| III. Bricks, Pottery, Glass, etc. .:. | 10,686 | 5,126 | 1,036 | 1,980 | 1,161 | 331 | 20,320 |
| Pains, Ofils, Grease | 20,064 | 16,311 | 1,504 | 2,969 | 2,638 | 754 | 44,240 |
| JV. Industrial Metals, Machines, Conveyances | 186,755 | 116,970 | 28,099 | 44,623 | 15,030 | 8,436 | 399,913 |
| V. Precious Metals, Jewellery, |  |  |  |  |  |  |  |
| Textiles and Textile Goods | 1,831 | 2,108 | 216 | 316 | 149 | 12 | 4,632 |
| (not Dress) <br> VII. Skins and Leather (inot Cloth- | 16,904 | 28,269 | 1,262 | 2,025 | 698 | 2,044 | 51,202 |
| VII. Skins and Leather (not Clothing or Footwear) <br> VIII. Clothing (except Knited) •• | 4,448 | 3,856 | 974 | 1,119 | 518 | 54 | 10,969 |
| VIII. Clothing (except Knitted) - | 26,451 | 30,186 | 4,277 | 3,005 | 1,782 | 499 | 66,200 |
| IX. Food, Drink and Tobacco | 31,696 | 31,404 | 21,944 | 8,357 | 4,857 | 3,565 | 101,823 |
| X. Sawmills, Joinery, Boxes, etc., | 16,027 | 12,127 | 7.511 | 3,858 | 4,323 | 2,695 | 46,541 |
| XI. Furniture of Wood, Bedding, | 6,390 | 4.619 |  | 1,460 | 805 | 315 | 15,428 |
| XII. Paper, Stationery, "Printing, |  |  |  |  |  |  |  |
| Bookbinding, etc. | 24,802 | 19,552 | 4,076 | 3,237 | 2,019 | 3,675 | 57,361 |
| XIII. Rubber | 7,574 | 6,534 | 1,286 | 944 | 188 | 134 | 16,660 |
| XIV. Musical Instruments | 1,336 | 252 | 27 | 26 | 23 |  | 17,664 |
| XV. Miscellaneous Products | 7,798 | 8,008 | 392 | 546 | 251 | 151 | 17,146 |
| Total, Classes I. to XV. | 370,594 | 291,241 | 75,958 | 76,231 | 35,705 | 23,341 | 873,070 |
| XVI. Heat, Light and Power | 7,738 | 5,367 | 1,822 | 1,587 | 1,211 | 295 | 18,020 |
| Grand Total .. | 378,332 | 296,608 | 77,780 | 77,818 | 36,916 | 23,636 | 891,090 |

(ii) Totals and Averages, 1938-39 and 1952-53 to 1956-57.-The following table shows the total amount of salaries and wages paid, and the average amount paid per employec in each State, for each of the years indicated. The figures exclude working proprietors and the amounts drawn by them :-

FACTORIES : TOTAL AND AVERAGE SALARIES AND WAGES PAID.

|  | Year. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Amount Paid ( $\mathrm{E}^{\prime} 000$ ). |  |  |  |  |  |  |  |  |  |
| 1938-39 |  |  | 44,606 | 36,027 | 10,887 | 8,169 | 4,574 | 2,480 | 106,743 |
| 1952-53 |  |  | 265,910 | 210,878 | 57,591 | 56,546 | 28,344 | 15,976 | 635,245 |
| 1953-54 |  |  | 293,586 | 236,037 | 63,433 | 63,110 | 31,590 | 17,381 | 705,137 |
| 1954-55 |  |  | 326,615 | 262,750 | 68,300 | 70,373 | 34,738 | 18,864 | 781,640 |
| 1955-56 |  |  | 359,023 | 286,944 | 72,460 | 76,237 | 37,207 | 21,598 | 853,469 |
| 1956-57 |  |  | 378,332 | 296,608 | 77,780 | 77,818 | 36,916 | 23,636 | 891,090 |
| Average Per Employee (£). |  |  |  |  |  |  |  |  |  |
| 1938-39 |  |  | 201.77 | 185.64 | 210.78 | 195.57 | 20.7 .90 | 188.31 | 196.31 |
| 1952-53 |  |  | 728.11 | 709.15 | 649.94 | 724.52 | 664.59 | 707.89 | 710.21 |
| 1953-54 |  |  | 758.65 | 743.29 | 678.35 | 761.27 | 703.26 | 734.60 | 742.62 |
| 1954-55 |  |  | 804.43 | 790.00 | 714.83 | 810.32 | 744.17 | 771.27 | 789.35 |
| 1955-56 |  |  | 860.91 | 841.16 | 740.93 | 848.43 | 785.23 | 828.65 | 837.35 |
| 1956-57 |  |  | 900.06 | 869.21 | 789.63 | 872.87 | 801.95 | 886.68 | 871.98 |

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, a large number of hands is employed in Class VIII., Clothing, comprising a relatively high percentage of women and children. The highest average wages per employee in 1956-57 were paid in New South Wales, Tasmania and South Australia, in that order.

The average earnings per employee rose annually from 1938-39 to 1943-44 when a level of $£ 291$ was attained as a result of war-time conditions. In 1944-45, the average dropped to $£ 285$ and remained at this level in 1945-46. From 1945-46, average earnings rose each year and in 1956-57 reached a record level of nearly $£ 872$.
(iii) Total and Average Earnings of Males and Females, 1938-39 and 1952-53 to 1956-57. Particulars for these years are given in the table on the following page.

## factories: TOTAL AND average salaries and wages-males and FEMALES.



Females.
Total Amount Paid (f000).

| 1938-39 |  | 6,334 | 7,021 | 967 | 681 | 445 | 246 | 15,694 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1952-53 |  | 41,165 | 38,981 | 6,072 | 5,952 | 2,588 | 1,727 | 96,485 |
| 1953-54 | . | 47,837 | 45,464 | 6,825 | 6,811 | 2,906 | 2,061 | 111.904 |
| 1954-55 | $\cdots$ | 52,148 | 49,373 | 7,175 | 7,431 | 2,990 | 2.128 | 121.245 |
| 1955-56 | - | 56,143 | 52,160 | 7,542 | 8,024 | 2,971 | 2,452 | 129,292 |
| 1956-57 | .. | 59,720 | 55,020 | 7,907 | 8,174 | 3,021 | 2,758 | 136,600 |


| 1938-39 .. |  | 103.66 | 108.25 | 96.00 | 86.44 | 99.58 | 93.19 | 103.92 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1952-53 | $\ldots$ | 473.28 | 483.46 | 400.48 | 451.80 | 400.32 | 448.58 | 467.79 |
| 1953-54 | $\cdots$ | 499.19 | 510.96 | 418.23 | 465.95 | 421.93 | 477.84 | 493.10 |
| 1954-55 | $\cdots$ | 514.94 | 529.63 | 431.68 | 477.12 | 434.21 | 487.12 | 509.56 |
| 1955-56 | .. | 540.06 | 547.42 | 445.22 | 496.84 | 449.61 | 500.06 | 530.23 |
| 1956-57 .. | $\ldots$ | 569.11 | 578.14 | 464.68 | 507.53 | 467.32 | 537.11 | 557.95 |

(iv) Managers, Clerical Staff and Other Employees. A further analysis of salaries and wages paid is given in the following table for $1956-57$ and shows the amounts paid to managerial and clerical staff, including salaried managers and working directors, chemists, draftsmen and other laboratory and research staff, and those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases.

FACTORIES: SALARIES AND WAGES PAID TO MANAGERS, CLERICAL STAFF, ETC., AND OTHER EMPLOYEES, AUSTRALIA, 1956-57.

| Class of Industry. | Managers, Clerical Staff, Chemists, Draftsmen, etc. |  | All Other Employees. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Males. | Females. |
| I. Treatment of Non-metalliferous Mine and Quarry | £'000. | f'000. | f'000. | £'000. |
| 1. Products Non-metallicrous Mine and Quarry | 2,373 | 394 | 16,080 | 124 |
| III. Bricks, Pottery, Glass, etc. $\because \ddot{\text { e }}$, $\because$ is, | 1,776 | 415 | 17,391 | 738 |
| IIV. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 9,983 | 2,079 | 28,254 | 3,924 |
| IV. Industrial Metals, Machines, Conveyances | 56,700 | 12,160 | 316,462 | 14.591 |
| V. Precious Metals, Jewellery. Plate ${ }^{\text {dex }}$ - ${ }^{\text {a }}$ | 521 4,553 | 203 1,889 | 3,428 $\mathbf{2 4 , 4 6 1}$ | 20,299 |
| VII. Skins and Leather (not Clothing or Footwear) | 1,302 | , 260 | 7,944 | 1,463 |
| VIII. Clothing (except Knitted) | 4,451 | 2,343 | 21,048 | 38,358 |
|  | 13,017 | 3,652 | 71,602 | 13,552 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving .. | 4,765 | 1,035 | 40,173 | 568 |
| XI. Furniture of Wood, Bedding, ëtc. | 1,490 | ,453 | 11,992 | 1,493 |
| XII. Paper, Stationery, Printing, Bookbinding, etc. | 7,371 | 2,423 | 40,609 | 6,948 |
| XIIV. Rubber ... | 2,378 | 537 | 12,173 | 1,572 |
| XIV. Musical Instruments | 224 | 80 | 1,137 | 223 |
| XV. Miscellaneous Products | 2,364 | 776 | 10,537 | 3,469 |
| Total, Classes I. to XV. | 113,268 | 28,710 | 623,290 | 107,802 |
| XVI. Heat, Light and Power | 1,757 | 66 | 16,174 | 23 |
| Grand Total. . | 115,025 | 28,776 | 639,464 | 107,825 |
| Average paid per employee .. | $1,300.60$ | $\frac{£_{1}}{603.20}$ | $928.57$ | $547.00$ |

3. Power, Fuel and Light Used.-(i) In Classes of Industry, 1956-57. The expenditure by factories on power, fuel and light, including the value of lubricants and water, is of considerable importance; in 1956-57 it amounted to a new high level of $£ 153,110,000$, an increase of $£ 13,983,000$ as compared with the previous year and almost ten times the corresponding value in 1938-39. The following table shows the value of power, fuel and light, etc., used in the different classes of industry:-

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(a), 1956-57. ( ${ }^{\prime} \mathbf{\prime 0 0 0 .}$ )

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products | 2,714 | 1,991 | 752 | 888 | 614 | 338 | 7,297 |
| II. Bricks, Pottery, Glass, etc. . ${ }^{\text {a }}$ | 3,609 | 1,961 | 401 | 561 | 486 | 162 | 7,180 |
| III. Chemicals, Dyes, Explosives, Faints, Oils, Grease | 5,948 | 6,196 | 322 | 805 | 1,854 | 307 | 15,432 |
| IV. Industrial Metals, Machines, Conveyances | 27,275 | 6,212 | 1,774 | 5,580 | 1,008 | 1,670 | 43,519 |
| V. Precious Metals, Jeweilery, | 133 | 136 | 10 | 38 | 11 | 1 | 329 |
| VI. Textiles and Textile Goods (not Dress) | 1,549 | 2,158 | 63 | 216 | 54 | 194 | 4,234 |
| VII. Skins and Leather (not Clothing or Footwear) | 454 | 469 | 79 | 147 | 69 | 6 | 1,224 |
| VIII. Clothing (except Knitted) .- | 891 | 933 | 172 | 132 | 85 | 40 | 2,253 |
| IX. Food, Drink and Tobacco .. | 6,027 | 5,651 | 2,862 | 1,267 | 969 | 487 | 17,263 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving | 1,460 | 649 | 427 | 165 | 315 | 301 | 3,317 |
| XI. Furniture of Wood, Bedding, etc. | 168 | 111 | 45 | 39 | 23 | 7 | 393 |
| XII. Paper, Stationery, Printing, Book binding, etc. | 1,284 | 1,705 | 136 | 267 | 89 | 1,253 | 4,734 |
| XIII. Rubber .. . . | 1,027 | '983 | 160 | 114 | 23 | 1,25 | 2,325 |
| XIV. Musical Instruments <br> XV. Miscellaneous Products | 78 509 | 13 506 | 11 | (b) 55 | (b) ${ }_{12}$ | 4 | 2,32 1,097 |
| Total, Classes 1. to XV. | 53,126 | 29,674 | 7,215 | 10,274 | 5,612 | 4,788 | 110,689 |
| XVI. Heat, Light and Power .. | 18,319 | 10,707 | 5,915 | 3,856 | 3,613 | 11 | 42,421 |
| Grand Total . . | 71,445 | 40,381 | 13,130 | 14,130 | 9,225 | 4,799 | 153,110 |

(a) Includes value of lubricants and water.
(b) Less than $£ 500$.
(ii) Values of Items, 1956-57. The following table shows the values of the various items of power, fuel and light used in factories in each State, during the year:-

FACTORIES: VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED(a), 1956-57. ( ${ }^{\prime} \mathbf{0 0 0 .}$ )

| Particulars. |  | N.S.W. | Vic. | Q'iand. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coal, Black | $\cdots$ | 21,338 | 2,738 | 7,134 | (b) 4,023 | 2,646 | 1,227 | 39,106 |
| B" Brown .. | . | .. | 7,540 |  |  | .. |  | 7,540 |
| Brown Coal Briquettes | . |  | 1,696 |  |  |  |  | 1,696 |
| Coke | . | 12,330 | 1,121 | 425 | 3,205 | 217 | 288 | 17,586 |
| Wood | . | 444 | 637 | 440 | 404 | 421 | 205 | 2,551 |
| Fuel Oil | $\cdots$ | 8,224 | 11,616 | 1,311 | 2,264 | 2,104 | 607 | 26,126 |
| Tar (Fuel) | . | 1,101 | 257 | 8 | 88 | 36 | 20 | 1,510 |
| Electricity | . | 19,369 | 10,841 | 2,801 | 3,035 | 1,934 | 2,114 | 40,094 |
| Gas | . | 3,251 | 986 | 147 | 229 | 77 | 39 | 4,729 |
| Other (Charcoal, etc.) | . | 1,861 | 833 | 146 | 339 | 1,374 | 122 | 4,675 |
| Water . . ${ }^{\text {- }}$ | . | 2,350 | 1,314 | 337 | 324 | 216 | 83 | 4,624 |
| Lubricating Oils | . | 1,177 | 802 | 381 | 219 | 200 | 94 | 2,873 |
| Total | . | 71,445 | 40,381 | 13,130 | 14,130 | 9,225 | 4,799 | 153,110 |

[^1](iii) Quantities of Fuel Used, 1956-57. The following table shows the quantities of fuel used in factories in each State during the year:-

FACTORIES : QUANTITIES OF FUEL USED, 1956-57.

| Particulars. | Unit. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coal, Black | ${ }^{0} 000$ tons | 5,560 | 408 | 1,639 | (a) 955 | 538 | 240 | 9,340 |
| Brown Cown Bricuettes.. | ", |  | 9,058 | $\cdots$ |  | .. | .. | 9,058 |
| Coke | ", | 2,033 | 131 | 39 | 335 | 23 | 17 | 2,578 |
| Wood |  | 207 | 324 | 225 | 167 | 322 | 91 | 1,336 |
| Fuel Oil | '000 gals. | 131,171 | 212,291 | 15,311 | 38,538 | 28,321 | 7,338 | 432,970 |
| Tar (Fuel) | , | 34,099 | 4,985 | 261 | 2,184 | 1,001 | 420 | 42,950 |

(a) Includes 462,000 tons of Leigh Creek coal.
(iv) Total Value, 1938-39 and 1952-53 to 1956-57. The next table shows the amounts expended on power, fuel and light during these years:-

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED.(a) ( $\mathrm{f}^{\prime} 000$. )

| Year. |  | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | $\cdots$ | 7,652 | 4.000 | 1,423 | 1,018 | 1,169 | 438 | 15,700 |
| 1952-53 | .. | 53,630 | 25,626 | 9,624 | 11,806 | 6,175 | 2.476 | 109,337 |
| 1953-54 | . | 58,447 | 29,080 | 10,655 | 12,500 | 6,972 | 2,804 | 120,458 |
| 1954-55 | . | 60,925 | 31,767 | 11,620 | 12,897 | 8,046 | 3,127 | 128,382 |
| 1955-56 | .. | 66,469 | 34,598 | 11,980 | 12,830 | 9,053 | 4,097 | 139,027 |
| 1956-57 | .. | 71,445 | 40,381 | 13,130 | 14,130 | 9,225 | 4,799 | 153,110 |

(a) Includes value of lubricants and water.
4. Value of Materials Used.-(i) In Classes of Industry, 1956-57. 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 1956-57 reached $£ 2,247,183,000$, representing 55.9 per cent. of the value of the final output (see para. 5). The following table shows the value of the materials used in various classes of industry in each State:-

FACTORIES : VALUE OF MATERIALS USED, 1956-57.
( $£^{\prime} 000$. )

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products | 27,756 | 11,639 | 3,572 | 3,956 | 2,335 | 1,175 | 0,433 |
| II. Bricks, Poitery, Gläss, etc. .. | 8,844 | 5,054 | , 855 | 1,926 | 2,752 | ,237 | 17,668 |
| II. Chemicals, Dyes, Exp Paints, Oils, Grease | 106,365 | 90,825 | 7,791 | 12,688 | 32,999 | 1,878 | 252,546 |
| IV. Industrial Metals, Machines, Conveyances | 395,9 | 175 | 48,886 |  |  | 18,244 |  |
| Precious Metals, |  |  |  |  |  |  |  |
| VI. Textites and Textile Goods | 1,852 | 3,156 | 102 | 229 | 71 | 6 | 5,416 |
| VI. Textiles and Textile Goods (not Dress) | 42,814 | 71,068 | 4,997 | 4,795 | 4,450 | 5,639 | 133,763 |
| VII. Skins and Leather (not Clothing or Footwear) |  |  |  |  |  | 40 |  |
| VIII. Clothing (except Knitted) | 44,403 | 47,648 | 6,217 | 3,269 | 2,093 | 333 | 103,963 |
| IX. Food, Drink and Tobacco | 166,340 | 174,978 | 137,672 | 38,021 | 27,114 | 15,606 | 599,731 |
| wmills, Joinery, Boxes, et Wood Turning and Carvin | 38,626 | 24,5 | 15, |  |  | ,632 | 101,569 |
| XI. Furniture of Wood, Bedding, etc. | 12,722 | 8,974 | 3,696 |  |  | 463 | 30,192 |
| XII. Paper, Stationery, Printing, |  |  |  |  |  |  |  |
|  | 45,374 18,137 | 42,933 15,455 | 6,394 3,534 | 5,273 | 2,964 | $\begin{array}{r}6,851 \\ \hline 187\end{array}$ | 109,789 39,159 |
| XIV. Musical Instruments | 18,14 2,989 | 13,405 | $\begin{array}{r}\text { 3,534 } \\ \hline 15\end{array}$ |  | 5 |  | 39,320 |
| XV. Miscellaneous Products | 12,602 | 16,815 | 485 | 963 | 257 | 78 | 31,200 |
| Total, Classes 1. to XV. | 939,870 | 701,334 | 242,926 | 182,379 | 104,111 | 56,569 | 2,227,189 |
| VI. Heat, Light a | 8,523 | 6,395 | 2,048 | 1,830 | 858 | 340 | 19,994 |
| Grand Total .. | 948,393 | 707,729 | 244,974 | 184,209 | 104,969 | 56,909 | 2,247,183 |

(ii) Total Amount, 1938-39 and 1952-53 to 1956-57. The following table shows the value of materials used in factories for these years:-

FACTORIES : VALUE OF MATERIALS USED. (£'000.)

| Year. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | $\ldots$ | 120,502 | 82.971 | 42,596 | 20.309 | 9,604 | 5,321 | 281,303 |
| 1952-53 | $\cdots$ | 627,954 | 476,489 | 187,572 | 133,818 | 63,943 | 38,029 | 1,527,805 |
| 1953-54 | .. | 721,311 | 548,111 | 211,451 | 152,590 | 72,468 | 42,042 | 1,747,973 |
| 1954-55 | $\cdots$ | 802,617 | 616,666 | 224,336 | 169,136 | 80,583 | 47,360 | 1,940,698 |
| 1955-56 | .. | 886,082 | 674.846 | 231,584 | 183,196 | 96,360 | 53,751 | 2,125,819 |
| 1956-57 | . | 948,393 | 707,729 | 244,974 | 184,209 | 104,969 | 56,909 | 2,247,183 |

5. Value of Output.-(i) In Classes of Industry, 1956-57. The value of the output of factories in the various classes in each State in 1956-57 is shown in the following table. It represents the selling value at the factory (excluding delivery costs and charges) of goods made or processed during the year, including by-products. In addition, it includes the amount received for other work done such as repair work, assembling and making up for customers. The difference between the sum of the values of the materials and of the power, fuel and light used, and the value of output is the real value of factory production (see para. 6).

FACTORIES : VALUE OF OUTPUT, 1956-57.
(£'000.)

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products | 45,799 | 24,734 | 7,479 | 8,781 | 5,742 | 2,690 | 95,225 |
| II. Bricks, Pottery, Glass, etc. .. | 29,297 | 14,750 | 3,211 | 5,796 | 3,204 | 856 | 57,114 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 175,055 | 144,750 | 12,338 | 21,460 | 47,589 | 3,672 | 404,864 |
| IV. Industrial Metals, Machines, Conveyances | 735,809 | 361,874 | 94,537 | 160,790 | 44,836 | 35,102 | 1,432,948 |
| V. Precious Metals, Jewellery, Plate .. .. .. | 5,167 | 6,314 | 446 | 160,769 | 364 | 31 | 13,091 |
| VI. Textiles and Textile Goods (not Dress) | 74,370 | 123,493 | 7,543 | 8,257 | 5,866 | 9,937 | 229,466 |
| VII. Skins and Leather (not Clothing or Footwear) | 22.157 | 19,007 | 4,996 | 8,884 | 2,203 | 342 | 57,589 |
| VIII. Clothing (except Knitted) .. | 88,551 | 95,936 | 13,244 | 7,766 | 5,092 | 1,145 | 211,734 |
| IX. Food, Drink and Tobacco .. | 246,534 | 245,863. | 183,014 | 54,388 | 38,619 | 23,006 | 791,424 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving | 68,573 | 45,216 | 28,239 | 16,898 | 14,831 | 10,758 | 184,515 |
| XI. Furniture of Wood, Bedding, etc. | 23,660 | 17,224 | 6,825 | 5,096 | 3,063 | 1,047 | 56,915 |
| XII. Paper, Stationery, Printing, Bookbinding, etc. | 92,345 | 80,931 | 14,050 | 11,540 | 7,063 | 17,304 | 223,233 |
| XIII. Rubber .. . . | 30,028 | 29,035 | 6,418 | 3,328 | 773 | 432 | 70,014 |
| XIV. Musical Instruments | 6,283 | 651 | 57 | 40 | 38 |  | 7,069 |
| XV. Miscellaneous Products | 27,347 | 32,643 | 1,158 | 2,071 | 693 | 269 | 64,181 |
| Total, Classes I. to XV. | 1,670,975 | 1,242,42l | 383,555 | 315,864 | 179,976 | 106,591 | 3,899,382 |
| XVI. Heat, Light and Power .. | 55,662 | 33,720 | 12,949 | 9,241 | 7,660 | 3,799 | 123,031 |
| Grand Total | 1,726,637 | 1,276,141 | 396,504 | 325,105 | 187,636 | 110,390 | 4,022,413 |

(ii) Total, 1938-39 and 1952-53 to 1956-57. The following table shows the value of output in each State during these years :-

FACTORIES : VALUE OF OUTPUT.
(£’000.)

|  | Year. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 |  | .. | 218,420 | 152,967 | 63,321 | 35,005 | 19,549 | 11,158 | 500,420 |
| 1952-53 |  | . | 1,139,326 | 860,147 | 295,405 | 234,813 | 119,310 | 71,003 | 2,720,004 |
| 1953-54 |  | . | 1,299,801 | 985,505 | 332,361 | 265,311 | 134,587 | 77,911 | 3,095,476 |
| 1954-55 |  | . | 1,446,669 | 1,100,656 | 356,017 | 293,061 | 149,585 | 88,601 | 3,434,589 |
| 1955-56 |  | . | 1,594,787 | 1,201,392 | 371,644 | 316,962 | 175,146 | 103,779 | 3,763,710 |
| 1956-57 |  | . | 1,726,637 | 1,276,141 | 396,504 | 325,105 | 187,636 | 110,390 | 4,022,413 |

6. Value of Production.-(i) In Classes of Industry, 1956-57. The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production."

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

It must not be inferred that, when wages and salaries are deducted from the value of production, the whole of the "surplus" is available for interest and profit, as many miscellaneous expenses such as taxation, insurance, advertising and other sundry charges also have to be taken into account.

The value of factory production, therefore, approximates " net value added" in the manufacturing process. It amounted in 1956-57 to $£ 1,622$ million to which Class IV., Industrial Metals, etc., with $£ 641$ million made the greatest contribution. The total value of production in $1956-57$ showed an increase of $£ 121$ million ( 8.16 per cent.) over the figure for 1955-56 and $£ 1,419$ million over the value of production recorded in 1938-39.

The following table shows the value of production in 1956-57 in each State for the various classes of industry.

FACTORIES: VALUE OF PRODUCTION, 1956-57.
('000.)

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products | 15,329 | 11,104 | 3,155 | 3,937 | 2,793 | 1,177 | 37,495 |
| II. Bricks, Poitery, Glass, etc. . | 16,844 | 7,735 | 1,955 | 3,309 | 1,966 | 457 | 32,266 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 62,742 | 47,729 | 4,225 | 7,967 | 12,736 | 1,487 | 136,886 |
| IV. Industrial Metals, Machines, Conveyances | 312,599 | 180,261 | 43,877 | 65,631 | 23,275 | 15,188 | 640,831 |
| V. Precious Metals, Jewellery, Plate | 3,182 | 3,022 | 334 | 502 | 282 | 24 | 7,346 |
| VI. Textiles and Textile Goods (not Dress) | 30,007 | 50,267 | 2,483 | 3,246 | 1,362 | 4,104 | 91,469 |
| VII. Skins and Leather (not Clothing or Footwear) | 6,592 | 5,968 | 1,528 | 1,611 | 728 | 96 | 16,523 |
| VIII. Clothing (except Knitted) . . | 43,257 | 47,355 | 6,855 | 4,365 | 2,914 | 772 | 105,518 |
| IX. Food, Drink and Tobacco . . | 74,167 | 65,234 | 42,480 | 15,100 | 10,536 | 6,913 | 214,430 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving | 28,487 | 20,054 | 12,491 | 6,374 | 7,398 | 4,825 | 79,629 |
| XI. Furniture of Wood, Bedding, etc. | 10,770 | 8,139 | 3,084 | 2,389 | 1,371 | 577 | 26,330 |
| XII. Paper, Stationery, Printing, Bookbinding, etc. | 45,687 | 36,293 | 7,520 | 6,000 | 4,010 | 9,200 | 108,710 |
| XIII. Rubber .. . . | 10,864 | 12,597 | 2,724 | 1,693 | 425 | 227 | 28,530 |
| XIV. Musical Instruments | 3,216 | 15333 | 41 662 | 1 14 1.053 | 33 424 |  | 3.657 31 |
| XV. Miscellaneous Products . $\quad$. | 14,236 | 15,322 | 662 | 1,053 | 424 | 187 | 31,884 |
| Total, Classes I. to XV. | 677,979 | 511,413 | 133,414 | 123,211 | 70,253 | 45,234 | 1,561,504 |
| XVI. Heat, Light and Power | 28,820 | 16,618 | 4,986 | 3,555 | 3,189 | 3,448 | 60,616 |
| Grand Total . | 706,799 | 528,031 | 138,400 | 126,766 | 73,442 | 48,682 | 1,622,520 |

(ii) Total and Averages, 1938-39 and 1952-53 to 1956-57. The value of production and the amount per person employed and per head of population are shown in the following table. For Australia as a whole, the value of production per head of population increased from $£ 29.34$ in 1938-39 to $£ 170.12$ in 1956-57. For value per person employed, the increase was not quite so pronounced (from $£ 360$ per head in 1938-39 to $£ 1,525$ in 1956-57).

FACTORIES: VALUE OF PRODUCTION.

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

Value. ( $\left.£^{\prime} 000.\right)$

| $1938-39$ | $\ldots$ | $\ldots$ | 90,266 | 65,996 | 19,302 | 13,678 | 8,776 | 5,399 | 203,417 |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $1952-53$ | $\ldots$ | $\ldots$ | 457,742 | 358,032 | 98,209 | 89,189 | 49,192 | 30,498 | $1,082,862$ |
| $1953-54$ | $\cdots$ | $\cdots$ | 520,043 | 408,314 | 110,255 | 100,221 | 55,147 | 33,065 | $1,227,045$ |
| $1954-55$ | $\ldots$ | $\cdots$ | 583,127 | 452,223 | 120,061 | 111,028 | 60,956 | 38,114 | $1,365,509$ |
| $1955-56$ | $\ldots$ | $\cdots$ | 706,799 | 491,948 | 128,080 | 120,936 | 69,733 | 45,931 | $1,498,764$ |
| $1956-57$ | $\cdots$ | $\cdots$ |  |  |  |  |  |  |  |

Per Person Empioyed. (£.)

| $1938-39$ | $\ldots$ | $\ldots$ | 395 | 327 | 357 | 315 | 378 | 391 | 360 |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $1952-53$ | $\ldots$ | $\ldots$ | 1,204 | 1,152 | 1,055 | 1,108 | 1,089 | 1,298 | 1,160 |
| $1953-54$ | $\ldots$ | $\ldots$ | 1,292 | 1,233 | 1,124 | 1,172 | 1,162 | 1,345 | 1,240 |
| $1954-55$ | $\ldots$ | $\ldots$ | 1,389 | 1,305 | 1,197 | 1,240 | 1,236 | 1,497 | 1,324 |
| $1955-56$ | $\ldots$ | $\ldots$ | 1,687 | 1,385 | 1,250 | 1,306 | 1,392 | 1,697 | 1,415 |
| $1956-57$ | $\ldots$ | $\ldots$ | 1,487 | 1,343 | 1,378 | 1,507 | 1,759 | 1,525 |  |

Per Head of Population. (£.)

| 1938-39 | $\cdots$ | 33.00 | 35.25 | 19.14 | 22.98 | 18.80 | 22.72 | 29.34 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1952-53 | .. | 133.84 | 151.55 | 78.64 | 119.00 | 80.28 | 98.72 | 123.79 |
| 1953-54 | . | 152.70 | 168.53 | 84.78 | 127.50 | 87.44 | 106.85 | 137.86 |
| 1954-55 | . | 168.56 | 181.75 | 90.59 | 137.50 | 93.93 | 121.78 | 150.22 |
| 1955-56 |  | 182.75 | 191.80 | 94.69 | 144.93 | 104.23 | 143.90 | 161.10 |
| 1956-57 |  | 196.99 | 200.00 | 100.26 | 147.17 | 107.29 | 149.27 | 170.12 |

7. Value of Output and Cost of Prodaction.-As the total value of the output for Australia for $1956-57$ was recorded as $£ 4,022,413,000$, there remained, after payment of $£ 2,247,183,000$ for the value of the materials used, $£ 891,090,000$ for salaries and wages and $£ 153,110,000$ for power, fuel and light, a balance of $£ 731,030,000$ to provide for all other costs and overhead expenses such as rent, interest, insurance, pay-roll tax, income tax. depreciation, etc., as well as drawings by working proprietors and profir. The following table gives corresponding particulars for each State for the year 1956-57:-

FACTORIES: VALUE OF OUTPUT AND COST OF PRODUCTION, 1956-57.

| State. | Materials <br> Used. <br> $($ a $)$ | Power, Fuel <br> and Light. <br> $(b)$ | Salaries and <br> Wages. | Balance. <br> (Output less <br> Materials. <br> Ful and <br> Wages.)(c) | Total Value <br> of Output. |
| :---: | :---: | :---: | :---: | :---: | :---: |

Value and Cost, etc.
( $\left.£^{\prime} 000.\right)$

| New South Wales |  |  | 948,393 | 71,445 | 378,332 | 328,469 | 1,726,637 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Victoria |  |  | 707,729 | 40,381 | 296,608 | 231,423 | 1,276,141 |
| Queensland |  |  | 244,974 | 13,130 | 77,780 | 60,620 | 396,504 |
| South Australia |  |  | 184,209 | 14,130 | 77,818 | 48,948 | 325,105 |
| Western Australia |  |  | 104,969 | 9,225 | 36,916 | 36,526 | 187,636 |
| Tasmania |  |  | 56,909 | 4,799 | 23,636 | 25,046 | 110,390 |
| Australia | . | . | 2,247,183 | 153,110 | 891,090 | 731,030 | 4,022,413 |

[^2]
## § 9. Value of Land, Buildings, Plant and Machinery.

1. General.-The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1956-57:-

FACTORIES : VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY(a), 1956-57. ( $\left.£^{\prime} 000.\right)$

| Value of- | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land and buildings | 303,981 | 252,024 | 58,654 | 55,343 | 35,520 | 56,473 | 761,995 |
| Plant and machinery | 363,310 | 290,785 | 89,904 | 71,847 | 63,272 | 44,836 | 923,954 |
| Total | 667,291 | 542,809 | 148,558 | 127,190 | 98,792 | 101,309 | 1,685,949 |

(a) Includes estimated value of rented premises and plant.

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation, but they include estimates of the capital value of premises and plant rented. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.
2. Value of Land and Buildings.-(i) Total for Australia. The following table shows, for Australia as a whole, the approximate value of land and buildings occupied in connexion with manufacturing industries for 1938-39 and 1951-52 to 1956-57.

FACTORIES : VALUE OF LAND AND BUILDINGS(a), AUSTRALIA. ( ${ }^{\prime} \mathbf{\prime} 000$.)

| Class of Industry. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products .. | 2,779 | 7,431 | 8,091 | 9,103 | 11,228 | 12,686 |
| II. Bricks, Pottery, Glass, etc. . . | 2,953 | 7,723 | 8,535 | 9,849 | 11,301 | 14,498 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 7,377 | 30,996 | 36,931 | 44,658 | 61,863 | 67,719 |
| IV. Industrial Metals, Machines, Conveyances | 34,841 | 137,724 | 159,325 | 184,934 | 218,667 | 252,837 |
| V. Precious Metals, Jewellery, Plate | 633 | 2,311 | 2,523 | 2,888 | 3,233 | 3,525 |
| VII Dress) .. | 6,000 | 22,482 | 25,443 | 29,651 | 31,931 | 37,010 |
| VII. Skins and Leather (not Clothing or Footwear) | 2,096 | 5,734 | 6,072 | 6,452 | 6.288 | 7,074 |
| VIII. Clothing (except Knitted) . | 10,624 | 26,359 | 28,584 | 31,163 | 33,920 | 37,203 |
| IX. Food, Drink and Tobacco ... | 33,273 | 78,278 | 86,625 | 94,070 | 108,335 | 118,413 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving .. | 4,107 | 16,361 | 18,297 | 21,225 | 23,141 | 25,347 |
| XI. Furniture of Wood, Bedding, etc. | 2,533 | 7,256 | 8,069 | 8,981 | 9,915 | 11,223 |
| XII. Paper, Stationery, Printing, Book- | 10,639 | 27,284 | 30,444 | 34,156 | 40,256 | 44,912 |
| XIII. Rubber $\quad . \quad \cdots$ | 1,676 | 5,530 | 6,668 | 7,430 | 8,581 | 9,563 |
| XIV. Musical Instruments . . | 105 | 398 | 468 | 528 | 621 | 987 |
| XV. Miscellaneous Products | 1,433 | 6,705 | 7,570 | 8,299 | 9,946 | 11,491 |
| Total, Classes I. 10 XV . .. | 121,069 | 382,572 | 433,645 | 493,387 | 579,226 | 654,488 |
| XVI. Heat, Light and Power .. | 9,851 | 31,874 | 49,786 | 62,609 | 76,356 | 107,507 |
| Grand Total | 130,920 | 414,446 | 483,431 | 555,996 | 655,582 | 761,995 |

(a) Includes estimated value of rented premises.
(ii) In Classes of Industry in States, 1956-57. The following table gives particulars of the various classes of industry in each State.

FACTORIES : VALUE OF LAND AND BUILDINGS $(a)$, 1956-57.
(£’000.)

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products .. | 4,749 | 3,937 | 844 | 1,028 | 1,457 | 671 | 12,686 |
| II. Bricks, Pottery, Glass, etc. . . | 7,794 | 3,401 | 743 | 1,043 | 1,274 | 243 | 14,498 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 32,930 | 24,964 | 1,394 | 2,740 | 4,652 | 1,039 | 67,719 |
| IV. Industrial Metals, Machines, Conveyances | 109,591 | 85,848 | 15,295 | 23,092 | 10,714 | 8,297 | 252,837 |
| V. Precious Metals, Jewellery, Plate | 1,246 | 1,704 | 122 | 258 | 172 | 23 | 3,525 |
| VI. Textiles and Textile Goods (not Dress) | 12,098 | 20,803 | 733 | 1,649 | 670 | 1,057 | 37,010 |
| VII. Skins and Leather (not Clothing or Footwear) | 2,832 | 2,859 | 354 | 631 | 287 | 111 | 7,074 |
| VIII. Clothing (except Knitted) - | 15,386 | 15,329 | 2,474 | 1,943 | 1,559 | 512 | 37,203 |
| IX. Food, Drink and Tobacco .. | 37,885 | 39,343 | 20,055 | 9,270 | 7,339 | 4,521 | 118,413 |
| X. Sawmills, Joinery, Boxes, etc., | 10,173 | 6,976 | 2,384 | 2,656 | 1,856 | 1,302 | 25,347 |
| XI. Furniture of Wood, Bedding, etc. | 4,295 | 3,709 | 1,357 | 850 | 759 | 253 | 11,223 |
| XII. Paper, Stationery, Printing, | 19,115 | 15,578 | 2,818 | 2,198 | 1,392 | 3,811 | 44,912 |
| XIIV. Rubber $\quad \cdots$ | 3,691 | 3,927 | 1,022 | 540 | 262 | 121 | 9,563 |
| XIV. Musical Instruments | 790 | 150 | 9 | 15 | 23 |  | 11.987 |
| XV. Miscellaneous Products | 5,095 | 5,372 | 271 | 377 | 290 | 86 | 11,491 |
| Toral, Classes 1. to XV. | 267,670 | 233,900 | 49,875 | 48,290 | 32,706 | 22,047 | 654,488 |
| XVI. Heat, Light and Power | 36,311 | 18,124 | 8,779 | 7,053 | 2,814 | 34,426 | 107,507 |
| Grand Total | 303,981 | 252,024 | 58,654 | 55,343 | 35,520 | 56,473 | 761,995 |

(a) Includes estimated value of rented premises.
(iii) Totals in each State. The following table shows the value of land and buildings in each State for the years 1938-39 and 1952-53 to 1956-57 :-

FACTORIES : VALUE OF LAND AND BUILDINGS.(a)
( ${ }^{\prime}$ ’000.)

| Year. |  | N.S.W. | Vic. | Q land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | $\cdots$ | 57,353 | 42,026 | 12,299 | 8,711 | 6.814 | 3,717 | 130,920 |
| 1952-53 | .. | 176,576 | 135,324 | 34,720 | 31,904 | 20,960 | 14,962 | 414,446 |
| 1953-54 | .. | 196,724 | 158,389 | 40,003 | 36,579 | 24,739 | 26,997 | 483,431 |
| 1954-55 | . | 221,519 | 186,324 | 46,187 | 42,133 | 30,230 | 29,603 | 555,996 |
| 1955-56 |  | 260,268 | 214,921 | 52,602 | 48,353 | 32,859 | 46.579 | 655.582 |
| 1956-57 | .. | 303,981 | 252,024 | 58,654 | 55,343 | 35,520 | 56,473 | 761,995 |

(a) Includes estimated value of rented premises.

Prior to 1929-30, the increase in the value of land and buildings was uninterrupted, rising from $£ 23$ million in 1903 to $£ 118$ million in 1929-30, an increase of $£ 95$ million in 27 years. During the three years ended 1932-33, there was a decline of $£ 12$ million to $£ 105.8$ million, but since that year the value has risen annually and it stood at $£ 762.0$ million in 1956-57.
3. Value of Plant and Machinery.-(i) Total for Australia, 1938-39 and 1952-53 to 1956-57. The following table shows for Australia the approximate value of plant and machinery used in factories.

## FACTORIES: VALUE OF PLANT AND MACHINERY(a), AUSTRALIA.

 (£`000.)| Class of Industry. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products .. | 7,028 | 16,155 | 17,829 | 20,625 | 23,512 | 27,351 |
| II. Bricks, Pottery, Glass, etc. . . | 3,145 | 8,811 | 9,741 | 11,000 | 12,319 | 13,138 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 6,754 | 39,024 | 53,528 | 97,508 | 125,016 | 127,732 |
| IV. Industrial Metals, Machines, Conveyances | 33,038 | 131,857 | 148,178 | 168,651 | 202,286 | 251,161 |
| V. Precious Metals, Jewellery, Plate | 197 | 1,012 | 1,002 | 1,094 | 1,219 | 1,374 |
| VI. Textiles and Textile Goods (not Dress) | 6,658 | 25,030 | 27,567 | 29,658 | 31,155 | 32,570 |
| VII. Skins and Leather (not Clothing or Footwear) | 973 | 3,894 | 4,034 | 4,153 | 4,225 | 4,332 |
| VIII. Clothing (except Knitted) | 2,557 | 11,181 | 12,363 | 13,452 | 14.340 | 15,699 |
| IX. Food, Drink and Tobacco ... | 32,101 | 77,512 | 90,624 | 101,700 | 115,904 | 124,406 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving. | 3,907 | 17,851 | 19,002 | 21,827 | 23,626 | 25,045 |
| XI. Furniture of Wood, Bedding, etc. | 728 | 2,692 | 2,870 | 3,186 | 3,388 | 3,632 |
| XII. Paper, Stationery, Printing, Bookbinding, etc. | 9,188 | 38,129 | 41,866 | 46,129 | 51,405 | 53,755 |
| XIII. Rubber | 1,368 | 4,875 | 5,677 | 6,843 | 8,971 | 8,626 |
| XIV. Musical Instruments | 12 | 305 | 458 | 444 | 509 | 682 |
| XV. Miscellaneous Products | 758 | 5,075 | 5,968 | 6,614 | 7,459 | 8,515 |
| Total, Classes I. to XV. . . | 108,412 | 383,403 | 440,707 | 532,884 | 625,334 | 698,018 |
| XVI. Heat, Light and Power .. | 35,250 | 110,131 | 140,008 | 165,408 | 178,206 | 225,936 |
| Grand Total | 143,662 | 493,534 | 580,715 | 698,292 | 803,540 | $\mathbf{9 2 3 , 9 5 4}$ |

(a) Includes estimated value of rented plant and machinery.

Except for the years 1930-31 to 1933-34, when decreases were recorded, there has been a continuous increase in the value of plant and machinery in factories in Australia. The increase in 1956-57 of $£ 210.4$ million over 1955-56 extended over all industrial classes except Class XIII. Rubber. The greatest increase occurred in Class IV., Industrial Metals, Machines, Conveyances.
(ii) Totals in each State. The following table shows the value of plant and machinery in each State during the years 1938-39 and 1952-53 to 1956-57. During 1956-57, increases occurred in all States, New South Wales showing the largest increase, $£ 64.4$ million.

## FACTORIES : VALUE OF PLANT AND MACHINERY.(a) ( $\mathbf{£}^{\prime} \mathbf{0 0 0}$ )

| Year. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | $\cdots$ | 62,693 | 38,627 | 18,095 | 9,750 | 8,095 | 6.402 | 143,662 |
| 1952-53 . | $\cdots$ | 207,733 | 147,365 | 51,670 | 40,111 | 24,035 | 22.620 | 493,534 |
| 1953-54 | $\cdots$ | 233,022 | 181,058 | 64,160 | 46,788 | 28,195 | 27.492 | 580,715 |
| 1954-55 | . | 258,596 | 226,347 | 76,367 | 52,145 | 54,958 | 29,879 | 698,292 |
| 1955-56 | $\cdots$ | 298.913 | 258.295 | 85,777 | 63.596 | 56,534 | 40.425 | 803,540 |
| 1956-57 .. | .. | 363,310 | 290,785 | 89,904 | 71,847 | 63,272 | 44,836 | 923,954 |

(a) Includes estimated value of rented plant and machinery.
(iii) Value according to Class of Industry, 1956-57. The following table shows the value of plant and machinery used in factories in each State during 1956-57 according to class of industry.

## FACTORIES : VALUE OF PLANT AND MACHINERY(a), 1956-57. (£’000.)

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Treatment of Non-metalliferous Mine and Quarry Products | 12,439 | 6,174 | 2,421 | 3,614 | 1,980 | 723 | 27,351 |
| II. Bricks, Pottery, Glass, etc. . | 6,849 | 3,054 | 970 | 857 | 1,206 | 202 | 13,138 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 45,785 | 48,540 | 1,923 | 5,808 | 22,889 | 2,787 | 127,732 |
| IV. Industrial Metals, Machines, Conveyances | 135,898 | 62,505 | 10,307 | 23,363 | 8,949 | 10,139 | 251,161 |
| V. Precious Metals, Jewellery, Plate | 547 | 625 | 40 | 105 | 49 | 8 | 1,374 |
| VI. Textiles and Textile Goods (not Dress) | 10,725 | 17,948 | 910 | 1,091 | 402 | 1,494 | 32,570 |
| VII. Skins and Leather (not Clothing or Footwear) | 1,749 | 1,479 | 404 | 474 | 194 | 32 | 4,332 |
| VIII. Clothing (except Knitted) . | 5,545 | 7,234 | 1,241 | 898 | 579 | 202 | 15,699 |
| IX. Food, Drink and Tobacco .. | 34,393 | 35,587 | 36,635 | 8,293 | 5,905 | 3,593 | 124,406 |
| X. Sawmills, Joinery, Boxes, etc., Wood Turning and Carving | 8,709 | 5,401 | 3,754 | 2,165 | 2,496 | 2,520 | 25,045 |
| XI. Furniture of Wood, Bedding, etc. | 1,287 | 1,129 | 381 | 405 | 255 | 75 | 3,632 |
| XII. Paper, Stationery. Printing, Bookbinding, etc. | 17,398 | 21,124 | 2,911 | 2,741 | 1,672 | 7,909 | 53,755 |
| XIII. Rubber .. .. | 1, 3,079 | 21,202 | 2,653 | 2,441 | +156 | 95 | 8,626 |
| XIV. Musical Instruments | 560 | 114 | 5 | 1 | 2 |  | 682 |
| XV. Miscellaneous Products | 3,427 | 4,510 | 138 | 332 | 82 | 26 | 8,515 |
| Total, Classes 1. to XV. . . | 288,390 | 219,626 | 62,793 | 50,588 | 46,816 | 29,805 | 698,018 |
| XVI. Heat, Light and Power .. | 74,920 | 71,159 | 27,111 | 21,259 | 16,456 | 15,031 | 225,936 |
| Grand Total | 363,310 | 290,785 | 89,904 | 71,847 | 63,272 | 44,836 | 923,954 |

(a) Includes estimated value of rented plant and machinery.
4. Depreciation of Land and Buildings and Plant and Machinery, 1956-57.-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 as recorded by factory proprietors at the annual census of factory production.

## FACTORIES : ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS

 AND PLANT AND MACHINERY, 1956-57.(£’000.)

| Class of Industry. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Treatment of Non-metalliferous Mine and Quarry Products | 1,361 | 540 | 261 | 367 | 170 | 67 | 2,766 |
| II. Bricks, Pottery, Glass, etc. . . | 729 | 350 | 126 | 89 | 123 | 27 | 1,444 |
| III. Chemicals, Dyes, Explosives, Paints, Oils, Grease | 4,641 | 4,973 | 258 | 691 | 2,422 | 404 | 13,389 |
| IV. Industrial Metals, Machines, Conveyances | 12,167 | 6,208 | 949 | 2,688 | 610 | 782 | 23,404 |
| V. Precious Metals, Jewellery, Plate | 38 | 48 | 3 | 8 | 3 |  | 100 |
| VI. Textiles and Textile Goods (not Dress) | 1,091 | 2,194 | 80 | 69 | 51 | 187 | 3,672 |
| VII. Skins and Leather (not Clothing or Footwear) | 123 | 105 | 27 | 33 | 20 | 2 | 310 |
| V1II. Clothing (except Knitted) .- | 499 | 620 | 86 | 57 | 47 | 22 | 1,331 |
| IX. Food, Drink and Tobacco ... | 3,172 | 3,507 | 2,995 | 779 | 566 | 351 | 11,370 |
| X. Sawmills, Joinery, Boxes, etc. Wood Turning and Carving | 816 | 537 | 349 | 218 | 248 | 285 | 2,453 |
| XI. Furniture of Wood, Bedding, etc. | 123 | 76 | 49 | 30 | 23 | 6 | 307 |
| XII. Paper, Stationery, Printing, Bookbinding, etc. | 1,546 | 2,332 | 290 | 240 | 178 | 798 | 5,384 |
| XIII. Rubber .. . | 799 | 695 | 131 | 103 | 19 | 11 | 1,758 |
| XIV. Musical Instruments | 58 | 10 |  |  |  |  | . 68 |
| XV. Miscelianeous Products | 422 | 568 | 13 | 33 | 10 | 3 | 1,049 |
| Totul, Classes I. to XV. | 27,585 | 22,763 | 5,617 | 5,405 | 4,490 | 2,945 | 68,805 |
| XVI. Heat, Light and Power .. | 6,326 | 743 | 1,468 | 694 | 764 | 298 | 10,293 |
| Grand Total .. | 33,911 | 23,506 | 7,085 | 6,099 | 5,254 | 3,243 | 79,098 |

5. Land and Buildings, Plant and Machinery-Values, Additions and Replacements, Depreciation, 1938-39 and 1952-53 to 1956-57.-The following table summarizes the recorded: totals for Australia in this section and also includes particulars of additions and replacements.

FACTORIES: VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY, AUSTRALIA.
(f'000.)

(a) Includes estimated value of rented premises, plant and machinery.

## § 10. Principal Factory Products.

The factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau and in the bulletin Secondary Industries.

The following table shows the total recorded production of some of the principal articles manufactured in Australia during the years ended 30th June, 1955 to 1957. A more complete list, together with values, where available, is published in the bulletin Sccondary Industries.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES : AUSTRALIA.


[^3]QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES : AUSTRALIA-continued.

(a) Excludes motor car, motor cycle, tractor and aero engines.
(b) Includes wheatmeal for baking and sharps.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES : AUSTRALIA-continued.


[^4]QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES : AUSTRALIA-continued.

(a) Production commenced late in 1955-56. Number produced in 1957-58 was 285,315. (b) Excludes wheatmeal for baking included with flour. (c) Includes television cabinets. (d) Including mixtures predominantly of the fibre mentioned.

## § 11. Individual Industries.

1. General.-Particulars on pages 154-181, $\S \S 2-9$ afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account of each industry, particular industries dealt with hereunder are of special importance because of the employment which they provide for labour and capital or for other features of special interest. Where there are only one or two establishments in a particular industry in the State or the Commonwealth, details of activities are not published, but are combined with some other factory group so that operations of individual concerns will not be disclosed.

The statistics in the following tables should be read in the light of the following definitions.
Factory. A factory is taken to be a manufacturing establishment in which four or more persons are employed or in which power, other than manual, is used.

Average Number of Persons Employed. All persons employed in the manufacturing activities of a factory are counted as factory employees, including working proprietors and "out-workers". The average number of persons employed means, in general, the average number over the whole year and not the average over the period worked.

Value of Materials Used. This item includes the value, in the usual sense, of the materials used, stores used, containers, tools replaced, and materials used in repairs to plant.

Value of Fuel, etc., Used. This item includes also the cost of power and light used, of lubricants and of water.

Value of Output. The amounts given under this heading represent the selling value, at the factory, of goods made or processed during the year, including by-products, also the value of other work done.

Value of Production. The value of production is obtained by deducting " Value of materials used " and "Value of fuel used ", as defined above, from the "Value of output ".

Rated Horse-power of Engines Used. Statistics of power used in factories other than Central Electric Stations relate to the " rated horse-power" of engines ordinarily in use.

For more detailed definitions see § 1, par. 6 of this chapter, page 151.
Detals of some of the principal articles produced in factories in Australia during the years 1954-55 to 1956-57 are shown in the table on the preceding pages ( $\S 10$ ).
2. Portland Cement and Cement Goods.-The manufacture of portland cement and cement goods is an important industry included in Class J. Particulars for the three industries under this general heading are shown for 1956-57 and for a series of years in the following table.

## PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT GOODS.

Australia, 1956-57.


AUSTRALIA.

| Items. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 132 | 504 | 479 | 480 | 489 | 479 |
| Number of persons employed | 3,932 | 9,352 | 9,304 | 10,444 | 11,167 | 10,688 |
| Salaries and wages paid .. £'000 | 897 | 6,942 | 7,435 | 8,704 | 10,044 | 10,312 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 562 | 3,436 | 3,950 | 4,445 | 4,792 | 5,119 |
| Value of materials used . $£ 0000$ | 1,542 | 14,303 | 16,013 | 19,418 | 21,999 | 23,226 |
| Value of production $\quad . \quad \mathbf{£}^{\prime} 000$ | 2,385 | 12,197 | 14,198 | 17,009 | 19.460 | 21,228 |
| Total value of output . . $£^{\prime} 000$ | 4,489 | 29,936 | 34,161 | 40,872 | 46,251 | 49,573 |
| Value of land and buildings $£^{\prime} 000$ | 1,350 | 3,890 | 4,206 | 4,726 | 6,128 | 6,994 |
| Value of plant and machinery fo00 | 2,516 | 10,018 | 10,796 | 13,208 | 15,542 | 18,454 |
| Horse-power of engines ordinarily in use <br> h.p. | 39,617 | 91,880 | 89,260 | 95,870 | 108,715 | 105,805 |

3. Chemicals, Drugs and Medicines.-In 1945-46, the classification of factories was amended to provide for the separate tabulation of factories engaged in the production of Industrial and Heavy Chemicals and Acids and those engaged in producing Pharmaceutical and Toilet Preparations, which previously had been combined. Details for each of these industries are given in the next two tables for 1956-57 with comparable figures for previous years. However, it should be noted that, in order to avoid the publication of confidential information, particulars relating to Industrial and Heavy Chemicals include details for the Explosives industry.

## INDUSTRIAL AND HEAVY CHEMICALS AND ACIDS (INCLUDING EXPLOSIVES).

1956-57.

| Items. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Number of factories |  |  |  |  |  |  |  |  |

Australia.

| Items. |  |  | $1945-46$. | $1952-53$. | $1953-54$. | $1954-55$. | $1955-56$. | $1956-57$. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Number of factories |  |  |  |  |  |  |  |  |

(a) Not available for publication; included in the total for Australia.

PHARMACEUTICAL AND TOILET PREPARATIONS.
1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 125 | 59 | 5 | 13 | 3 | 1 | 206 |
| Number of persons employed | 3,237 | 2,537 | 118 | 473 | (a) | (a) | 6,446 |
| Salaries and wages paid £'000 | 2,388 | 2,202 | 70 | 309 | (a) | (a) | 5,020 |
| Value of power, fuel, etc., used .. .. £'000 | 86 | 192 | 1 | 31 | (a) | (a) | 312 |
| Value of materials used .. $£^{\prime} 000$ | 7,726 | 6,006 | 297 | 1,163 | (a) | (a) | 15,292 |
| Value of production .. £'000 | 10,835 | 5,468 | 175 | 696 | (a) | (a) | 17,312 |
| Total value of output .. $£^{\prime} 000$ | 18,647 | 11,666 | 473 | 1,890 | (a) | (a) | 32,916 |
| Value of land and buildings $£$ '000 | 3,425 | 3,880 | 61 | 310 | (a) | (a) | 7,828 |
| Value of plant and machinery | 1,123 | 1,432 | 17 | 142 | (a) | (a) | 2,746 |
| Horse-power of engines ordinarily in use h.p. | 4,018 | 10,965 | 74 | 1,469 | (a) | (a) | 16,666 |

Australia.

| Items. |  | 1945-46. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 215 | 206 | 208 | 210 | 206 | 206 |
| Number of persons employed |  | 5,514 | 5,363 | 6.012 | 6,233 | 6,400 | 6,446 |
| Salaries and wages paid | £'000 | 1,699 | 3,468 | 3,898 | 4,255 | 4,635 | 5,020 |
| Value of power, fuel, etc., used | f'000 | 57 | 197 | 238 | 223 | 259 | 312 |
| Value of materials used .. | £'000 | 5,402 | 9,784 | 12,017 | 12,729 | 13,565 | 15,292 |
| Value of production | $\chi^{\prime} 000$ | 4,790 | 10,188 | 12,969 | 14.380 | 15,279 | 17,312 |
| Total value of output | $£ 000$ | 10,249 | 20,169 | 25,224 | 27.332 | 29,103 | 32,916 |
| Value of land and buildings | £'000 | 1,534 | 3,931 | 4,755 | 6,022 | 6,830 | 7.828 |
| Value of plant and machinery | £'000 | 598 | 1,569 | 1,793 | 2,129 | 2,686 | 2.746 |
| Horse-power of engines ordinarily in use | h.p. | 6,324 | 12,238 | 12,777 | 13,592 | 14,301 | 16,666 |

(a) Not available for publication ; included in the total for Australia.
4. White Lead, Paints and Varnish.-The following table shows particulars of this industry for each State during 1956-57 and for Australia for a series of years.

## WHITE LEAD, PAINTS AND VARNISH.

1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 85 | 57 | 17 | 14 | 10 | 3 | 86 |
| Number of persons employed | 3,101 | 1,724 | 334 | 530 | (a) | (a) | 5,815 |
| Salaries and wages paid $£^{\prime} 000$ | 3,011 | 1,657 | 264 | 473 | (a) | (a) | 5,508 |
| Value of power, Iuel, etc., usedf'000 | 269 | 80 | 20 | 25 | (a) | (a) | 400 |
| Value of materials used $\quad £^{\prime} 000$ | 12,370 | 6,708 | 1,671 | 2,535 | (a) | (a) | 23,916 |
| Value of production .. $\mathbf{£}^{\prime} 000$ | 6,580 | 3,814 | 1,086 | 1,668 | (a) | (a) | 13,567 |
| Total value of output .. $\mathbf{£}^{\prime} 000$ | 19,219 | 10,602 | 2,777 | 4,228 | (a) | (a) | 37,883 |
| Value of land and buildings $\mathbf{f}^{\prime} 000$ | 2,640 | 2,808 | 298 | 662 | (a) | (a) | 6,680 |
| Value of plant and machinery $\mathbf{E}^{\prime} 000$ | 1,311 | 1,527 | 166 | 339 | (a) | (a) | 3,408 |
| Horse-power of engines ordinarily | 13,947 | 8,735 | 1,452 | 2,080 | (a) | (a) | 26,969 |

Australia.

| Items. |  | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 102 | 175 | 174 | 175 | 178 | - |
| Number of persons employed |  | 2,271 | 4,622 | 4,934 | 5,322 | 5,804 | 5,815 |
| Salaries and wages paid | ${ }^{\prime}$ | 535 | 3,346 | 3,757 | 4,636 | 5,300 | 5,508 |
| Value of power, fuel, etc., used | ${ }^{\prime}$ | 45 | 258 | 337 | 376 | 384 | 400 |
| Value of materials used | $£^{\prime} 000$ | 2,275 | 14.657 | 18,603 | 21,553 | 23,504 | 23,916 |
| Value of production | $£^{\prime} 000$ | 1,585 | 8,583 | 9,891 | 11,980 | 12.874 | 13,567 |
| Total value of output | $£^{\prime} 000$ | 3,905 | 23.498 | 28,831 | 33,909 | 36,762 | 37,883 |
| Value of land and buildings | f'000 | 761 | 3,669 | 4.066 | 5,089 | 5,563 | 6,680 |
| Value of plant and machinery | f'000 | 324 | 2,113 | 2,230 | 2,892 | 3,261 | 3,408 |
| Horse-power of engines ordina use | chily in h.p. | 7,696 | 22.769 | 22,719 | 24.178 | 25.050 | 26,969 |

(a) Not available for publication ; figures are included in the total for Australia.
5. Soap and Candle Factories.-The following table shows particulars of factories in the Soap and Candle industry in each State for 1956-57 and for Australia for a series of years :-

SOAP AND CANDLES.
1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 44 | 25 | 9 | 5 | ${ }^{3}$ |  | 87 |
| Number of persons employed | 1,790 | 671 | 264 | 124 | (a) | (a) | 2,932 |
| Salaries and wages paid $£^{\prime} 000$ | 1,554 | 785 | 200 | 105 | (a) | (a) | 2,704 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 170 | 181 | 22 | 14 | (a) | (a) | 393 |
| Value of materials used $\quad £^{\prime} 000$ | 6,738 | 4,398 | 723 | 289 | (a) | (a) | 12,437 |
| Value of production .. $£^{\prime} 000$ | 5,880 | 2.516 | 498 | 160 | (a) | (a) | 9,150 |
| Total value of output .. $£^{\prime} 000$ | 12,788 | 7,095 | 1.243 | 463 | (a) | (a) | 21,980 |
| Value of land and buildings $£^{\prime} 000$ | 688 | 812 | 150 | 76 | (a) | (a) | 1,784 |
| Value of plant and machinery $£^{\prime} 000$ | 1,182 | 1,658 | 182 | 58 | (a) | (a) | 3,150 |
| Horse-power of engines ordinarily in use | 5,743 | 3,450 | 853 | 575 | (a) | (a) | 10,922 |

(a) Not available for publication; figures are included in the total for Australia.

Australia.

| liems. | 1938-39. | 1952-53. | 53-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | 65 |  | 9 | 91 | 2 | 7 |
| Number of persons employed | 2,620 | 3,028 | 3,058 | 2,962 | 3,167 | 2,932 |
| Salaries and wages paid .. $£^{\prime} 000$ | 501 | 2,460 | 2,544 | 2,589 | 2,858 | 2,704 |
| Value of power, fuel, etc., used ${ }^{\prime} 000$ | 76 | 475 | 427 | 420 | 406 | 393 |
| Value of materials used .. $£^{\prime} 000$ | 1.568 | 8,846 | 10,214 | 11.941 | 12,057 | 12,437 |
| Value of production .. £'000 | 1,886 | 6,324 | 6.732 | 7.425 | 8,147 | 9,150 |
| Total value of output .. $\mathfrak{f}^{\prime} 000$ | 3,530 | 15.645 | 17.373 | 19,786 | 20,610 | 21,980 |
| Value of land and buildings $\quad £^{\prime} 000$ | ${ }_{6}^{666}$ | 1,487 | 1,565 | 1,619 | 1,743 | 1,784 |
| Value of plant and machinery $f^{\prime} 000$ | 577 | 1,985 | 2,244 | 2,653 | 3,001 | ,150 |
| Horse-power of engines ordinarily in use .. .. .. h.p. | 5,267 | 8,606 | 8,795 | 8,676 | 10,711 | 10,922 |
| Materials used- | 535,5 | 1,024,7 | 1,120,828 | 1,151,1 | 1,162,578 |  |
| Alkali for Soap ( a $_{\text {a }}$ |  | 1,386,1 |  | 1,421, | , 322,78 |  |
| Coconut oil-refined and unrefined $\begin{gathered}\text { cwt. }\end{gathered}$ |  | 95,825 |  |  |  | 80,262 |
| Articles producedSoap (excl Sand Soap) |  |  | 22 |  |  |  |
| Cleansers and Scourers (incl. Sañd |  | 1, | 1,22, | 1,2 | 1,260 |  |
| Soap Extracts and Powders | 191,232 | 885,158 | 890,241 | 1,007,494 | 1010,443 | 866,958 |
| Candles made | 28,649 | 14,256 | 8,611 | 10,369 | 10.011 | 10,354 |

(a) Includes Soda Ash.

NOTE.-Preliminary figures of production in 1957-58 were Soap, 1,304,000 cwt.; Cleansers and Scourers, $72,000 \mathrm{cwt}$; and Soap Extracts and Powders, $876,000 \mathrm{cwt}$.
6. Chemical Fertilizers.-The following table shows particulars of the factories engaged in the manufacture of chemical fertilizers in each State during 1956-57 and for Australia for a series of years. Details of the consumption, imports and exports of fertilizers will be found in Chapter XXII.-Agricultural Production.

## CHEMICAL FERTILIZERS.

1956-57.

| Items. |  | N.S.W. |  |  | Q'lan | nd. | S. Aus |  | W. Aust | . | Tas. |  | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 15 |  | ${ }_{56}^{8}$ |  | 8 |  | 8 |  |  | ${ }^{7}$ |  | 5.52 |
| Number of persons employed $\because$ |  | 932 |  | 563 |  |  |  |  | 942 |  | (a) |  | 5,074 |
| Salaries and wages paid ${ }^{\prime}$ '000 |  | 996 |  | 597 | (a) |  | 93 |  | 839 |  | (a) |  | 5,069 |
|  |  | 475 |  |  | (a) |  |  |  | 149 |  | (a) |  | 1,160 |
|  |  | 3,868 |  | 966 | (a) |  | 5,72 |  | 5,428 |  | (a) |  | 25,479 |
| Value of production $\quad .$. |  | 1,940 |  | 235 | (a) |  | 1,81 |  | 2,024 |  | (a) |  | 10,158 |
| Total value of output $\because \quad \mathfrak{E}^{\prime} 000$ |  | 6,283 |  | 444 | (a) |  | 7,63 |  | 7,601 |  | (a) |  | 36,797 |
| Value of land and buildings ${ }_{\text {c }} £^{\prime} 000$ |  | 2,932 |  | 871 | (a) |  | 65 |  | 1,885 |  | (a) |  | 7,341 |
|  |  | 2,753 |  | 300 | (a) |  | 3,34 |  | 1,977 |  | (a) |  | 1,404 |
| Horse-power of engines ordinarily in use h.p. |  | 17,163 | 14,6 | 649 | (a) |  | 9,15 |  | 8,180 |  | (a) |  | 59,457 |
| Australia. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Items. |  | 938-39. |  | 1952-53. |  | 1953-54. |  | 1954-55. |  | 1955-56. |  | 1956-57. |  |
| Number of factoriesNumber of persons employed |  |  | 36 |  | 51 |  | 51 |  | 53 |  | 54 |  | 52 |
|  |  |  |  |  | 4,483 |  | 4,531 |  | 4,735 |  | 4,911 |  | 5,074 |
| Salaries and wages paid .. £ $£^{\prime 000}$ |  |  |  |  | 3,759 |  | 3,988 |  | 4,372 |  | 4,809 |  | 5,069 |
| Value of power, fuel, etc., usedValue of materials used | £ 000 |  | 14 |  | 786 |  | 842 |  | 852 |  | 939 |  | 1,160 |
|  |  |  |  |  | 21,100 |  | 20,521 |  | 21,519 |  | 24,098 |  | 25.479 |
| Value of productionTotal value of output | £'000 |  |  |  | 7,255 |  | 8,109 |  | 8,794 |  | 10,267 |  | 10,158 |
|  | £'000 |  |  |  | 29.141 |  | 29,472 |  | 31,155 |  | 35,304 |  | 36,797 |
| $\checkmark$ Value of land and buildings | f000 |  |  |  | 4,794 |  | 6,067 |  | 6.512 |  | 7,033 |  | 7,341 |
| Value of plant and machinery | £'000 |  |  |  | 6,218 |  | 8,067 |  | 9,270 |  | 11,645 |  | 11,404 |
| Horse-power of engines ordinarily in |  | 18,165 |  | 39,850 |  |  | 41,644 |  | 47,595 |  | 58,044 |  | 59,457 |

(a) Not available for publication; figures are included in the total for Australia.
7. Iron and Steel Works and Engineering.-(i) General. In 1945-46, the classification of factories was amended to provide for the tabulation in four separate groups of those industries previously included under Iron and Steel, and Engineering. The first group (Smelting, Converting, Refining and Rolling of Iron and Steel) covers blast furnaces, steel works and rolling mills. The second group, Foundries (Ferrous), covers those engaged in the founding of iron and steel. The third group (Plant, Equipment and Machinery including Machine Tools) covers those industries engaged in the production of boilers, engines, machines and machinery, machine tools, structural steel fabrications, steel furniture, etc. The fourth group (Other Engineering) includes jobbing and general engineers, not elsewhere included. Detailed statistics for the four groups mentioned are shown in the following tables.
(ii) Smelting, Converting, Refining and Rolling of Iron and Steel. In the following table, particulars are shown for each State for 1956-57 and for Australia in selected years for the group Smelting, Converting, Refining and Rolling of Iron and Steel.

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL.
1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S.A. | W.A. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factor | 7 | 11 |  |  | 2 |  | 34 |
| Number of persons employed | 24,168 | 1,396 |  | (a) | (a) |  | 26,078 |
| Salaries and wages paid $£^{\prime} 000$ | 26,779 | 1,396 | $\ldots$ | (a) | (a) |  | 28,636 |
| Value of power, fuel, etc., used £'000 | 17,890 | 347 |  | (a) | (a) |  | 20,538 |
| Value of materials used.. $£^{\prime} 000$ | 134,029 | 1,342 |  | (a) | (a) |  | 136,483 |
| Value of production .. $f^{\prime} 000$ | 62,657 | 1,869 |  | (a) | (a) |  | 66,385 |
| Total value of output : $£^{\prime} 000$ | 214,576 | 3,558 |  | (a) | (a) |  | 223,406 |
| Value of land and buildings $£^{\prime} 000$ | 8,449 | 285 |  | (a) | (a) | .. | 9,054 |
| Value of plant and machinery $\mathrm{f}^{\prime} 000$ | 58,177 | 368 |  | (a) | (a) |  | 61,608 |
| Horse-power of engines ordinarily in use .. .. h.p. | 424,669 | 7,866 |  | (a) | (a) |  | 448,541 |

Australia.

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

(a) Not available for publication; figures are included in the total for Australia.
(b) The reduction in the number of establishments is due to combined returns being furnished where formerly separate returns were submitted for Blast Furnaces, Steel Furnaces and Rolling Mills operated by the one establishment.

Particulars of the production of pig-iron and steel will be found on page 183 and in Chapter XXVII.-Mineral Industry.
(iii) Foundries (Ferrous). Particulars covering those industries classified as founding of iron and steel are shown for each State for 1956-57 and for Australia in selected years in the following table:-

FOUNDRIES-FERROUS.
1956-57.

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

Australia.

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

(iv) Plant, Equipment and Machinery (including Machine Tools). The next table shows particulars for this group for each State during 1956-57 and for Australia in selected years.

PLANT, EQUIPMENT AND MACHINERY (INCLUDING MACHINE TOOLS). 1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 1,089 | 696 | 147 | 176 | 100 | 4 | 2,212 |
| Number of persons employed | 26,983 | 24,380 | 6,542 | 8,235 | (a) | (a) | 69,476 |
| Salaries and wages paid £'000 | 26,680 | 23,016 | 5,274 | 7,512 | (a) | (a) | 65,272 |
| Value of power, fuel, etc., used £'000 | 1,045 | 954 | 222 | 416 | (a) | (a) | 2,775 |
| Value of materials used .. £'000 | 40,972 | 35,400 | 6,589 | 12,358 | (a) | (a) | 99.172 |
| Value of production .. £'000 | 44.543 | 38,193 | 7,857 | 12,142 | (a) | (a) | 106,922 |
| Total value of output . . $£$ | 86,560 | 74,547 | 14,668 | 24,916 | (a) | (a) | 208,869 |
| Value of land and buildings $£$ '000 | 16,559 | 14,987 | 2,056 | 3,783 | (a) | (a) | 39,692 |
| Value of plant and machinery $£^{\prime} 000$ | 11,771 | 10,810 | 1,793 | 3,097 | (a) | (a) | 29,112 |
| Horse-power of engines ordinarily in use .. .. h.p. | 88,715 | 76,412 | 18,320 | 28,175 | (a) | (a) | 222,937 |

Australia.

| Items. |  | 1945-46. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 1,038 | 1,787 | 1,911 | 1,980 | 2,062 | 2,212 |
| Number of persons employed |  | 46,123 | 60,140 | 60.840 | 64,588 | 68,699 | 69,476 |
| Salaries and wages paid | £'009 | 14.259 | 45.414 | 47.620 | 54,561 | 61,872 | 65,272 |
| Value of power, fuel, etc., used | £'000 | 605 | 2.095 | 2,219 | 2,378 | 2,570 | 2,775 |
| Value of materials used . . | £'000 | 16.455 | 63.134 | 68,288 | 80,462 | 93,510 | 99,172 |
| Value of production | £'000 | 21,044 | 70.790 | 75,997 | 87.040 | 98.574 | 106,922 |
| Total value of output | £'000 | 38,104 | 136,019 | 146,504 | 169.880 | 194,654 | 208,869 |
| Value of land and buildings | £'000 | 7,227 | 22,332 | 25.259 | 28,687 | 34.019 | 39,692 |
| Value of plant and machinery | £'000 | 7.046 | 19.784 | 21.335 | 23,548 | 26,261 | 29,112 |
| Horse-power of engines ordinarily | in use h.p. | 101.810 | 197,031 | 198,300 | 201,626 | 217,880 | 1222,937 |

(a) Not available for publication; figures are included in the total for Australia.
(v) Other Engineering. Details covering jobbing and general engineering works not elsewhere included are shown for each State for 1956-57 and for Australia in selected years in the following table.

## OTHER ENGINEERING.

1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust ${ }^{\text {' }}$ | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 789 | 784 | 156 | 188 | 156 | 93 | 2,166 |
| Number of persons employed | 6,646 | 8,395 | 1,601 | 3,821 | 965 | 1,720 | 23,148 |
| Salaries and wages paid.. £'000 | 5,757 | 7,444 | 1,226 | 3,446 | 685 | 1,479 | 20,037 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 210 | 231 | 37 | 100 | 33 | 63 | 674 |
| Value of materials used . . $£^{\prime} 000$ | 6,634 | 7,570 | 1,502 | 4,140 | 827 | 1,647 | 22,320 |
| Value of production . $\mathrm{f}^{\prime} 000$ | 9,732 | 11,607 | 1,952 | 4,957 | 1,098 | 2,222 | 31,568 |
| Total value of output ... £'000 | 16,576 | 19,408 | 3,491 | 9,197 | 1,958 | 3,932 | 54,562 |
| Value of land and buildings $£ 000$ | 4,267 | 5.059 | 699 | 2,279 | 560 | 937 | 13,801 |
| Value of plant and machinery $£^{\prime} 000$ | 2,712 | 3,726 | 555 | 1,428 | 302 | 717 | 9,440 |
| Horse-power of engines ordinarily in use .. .. h.p. | 19,444 | 25,679 | 4,292 | 13,342 | 3,469 | 6,028 | 72,254 |

Australia.

| Iterns. |  |  |  |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |

8. Extracting and Refining of Non-ferrous Metals: Alloys.-The following table shows particulars of establishments engaged in metal extraction and ore reduction including secondary recovery of metals, but excluding blast furnaces engaged in production of pig iron from iron ore, for each State during 1956-57 and for Australia for a series of years. It should be noted that as Ore Beneficiation and Concentration, formerly included as part of this section of Manufacturing Industry, was transferred to the Mining Industry in 1952-53 details for that and later years are not comparable with those for earlier years.

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

 1956-57.| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. <br> (a) | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 25 | 22 | 5 | 2 |  | 3 | 58 |
| Number of persons employed | 1,354 | 299 | 646 | (b) | (b) | (b) | 7,212 |
| Saiaries and wages paid.. £'000 | 1,599 | 317 | 863 | (b) | (b) | (b) | 8,720 |
| Value of power, fuel, ete., used ${ }_{\text {', }}$,000 | 554 | - 49 | 799 | (b) | (b) | (b) | 4,282 |
| Value of materials used . . $\mathbf{X}^{\prime} 000$ | 13,108 | 3,037 | 16,042 | (b) | (b) | (b) | 68,426 |
| Value of production .. £'000 | 4,083 | 753 | 2,303 | (b) | (b) | (b) | 19,773 |
| Total value of output . . £'000 | 17,745 | 3,839 | 19,144 | (b) | (b) | (b) | 92,481 |
| $\checkmark$ alue of land and buildings $£^{\prime} 000$ | 872 | 325 | 992 | (b) | (b) | (b) | 6,566 |
| Value of plant and machinery $£^{\prime} 000$ | 1,441 | 185 | 1,356 | (b) | (b) | (b) | 14,485 |
| Horse-power of engines ordinarily in use | 9,987 | 814 | 10.473 | (b) | (b) | (b) | 76,212 |

Australia.

| Items. |  | 1938-39. | $\begin{gathered} 1952-53 . \\ (\mathrm{c}) \end{gathered}$ | $\begin{gathered} 1953-54 . \\ (\mathrm{c}) \end{gathered}$ | $\begin{gathered} 1954-55 . \\ (c) \end{gathered}$ | $\begin{gathered} 1955-56 \\ (c) \\ \hline \end{gathered}$ | $\begin{gathered} 1956-57 . \\ (c) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 42 | 59 | 59 | 62 | 56 | 58 |
| Number of persons employed |  | 5,532 | 6,958 | 6.592 | 6,782 | 7,029 | 7,212 |
| Salaries and wages paid .. | f'000 | 1,613 | 6,085 | 6,069 | 6,432 | 7,434 | 8,720 |
| Value of power, fuel, etc., used | £'000 | 598 | 2,803 | 3,063 | 3,253 | 3,753 | 4.282 |
| Value of materials used .. | £'000 | 16,844 | 44,481 | 53,711 | 62,859 | 70,000 | 68,426 |
| Value of production | £'000 | 3,892 | 14.163 | 12,648 | 14.148 | 17,787 | 19.773 |
| Total value of output | £'000 | 21,334 | 61,447 | 69,422 | 80.260 | 91,540 | 92,481 |
| Value of land and buildings | f'000 | 1,177 | 2,669 | 2,743 | 3,044 | 6,155 | 6,566 |
| Value of plant and machinery | f'000 | 3.526 | 4.371 | 5,390 | 6,019 | 13,367 | 14,485 |
| Horse-power of engines ordinarily in use | h.p. | 54,450 | 70,424 | 65,067 | 66,280 | 79,696 | 76,212 |

(a) In Western Australia the majority of the plants are worked at the mines and are therefore not included. (b) Not available for publication ; figures are included in the total for Australia.
(c) See text above table.
9. Electrical Machinery, Cables and Apparatus.-The following table shows particulars of this industry for each State during 1956-57 and for Australia for a series of years.

## ELECTRICAL MACHINERY, CABLES AND APPARATUS.

1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 542 | 380 | 72 | 71 | 71 | 17 | 1,153 |
| Number of persons employed | 29,562 | 10,697 | 1,721 | 1,609 | (a) | (a) | 44,594 |
| Salaries and wages paid.. $£^{\prime} 000$ | 26,367 | 9,071 | 1,338 | 1,252 | (a) | (a) | 38,780 |
| Value of power, fuel, etc. used £'000 | 1,425 | 439 | , 34 | 36 | (a) | (a) | 1,964 |
| Value of materials used . . $£$ '000 | 53,911 | 16,518 | 3,254 | 1,512 | (a) | (a) | 76,256 |
| Value of production . $\mathbf{£}^{\prime} 000$ | 44,415 | 13,605 | 2,147 | 1,709 | (a) | (a) | 63,198 |
| Total value of output ... $£^{\prime} 0000$ | 99,751 | 30,562 | 5,435 | 3,257 | (a) | (a) | 141,418 |
| Value of land and buildings $£^{\prime} 000$ | 15,528 | 7,871 | 677 | 647 | (a) | (a) | 25,306 |
| Value of plant and machinery $£^{\prime} 000$ | 10,790 | 4,636 | 457 | 304 | (a) | (a) | 16,409 |
| Horse-power of engines ordinarily in use $\quad . \quad$.. h.p. | 60,918 | 22,657 | 4,685 | 2,044 | (a) | (a) | 91,991 |
| Australia. |  |  |  |  |  |  |  |
| Items. |  | 1938-39. | 1952-53. '1953-54. |  | 1954-55. | 1955-56. | 1956-57. |
| Number of factories |  | 360 | 965 | 1,028 | 1,064 | 1,099 | 1,153 |
| Number of persons employed |  | 10,666 | 31,949 | 38,377 | 42,007 | 43,841 | 44,594 |
| Salaries and wages paid .. | £'000 | 2,031 | 22,903 | 28,969 | 33,403 | 36,663 | 38,780 |
| Value of power, fuel, etc., used | £'000 | 105 | 991 | 1,391 | 1,651 | 1,808 | 1,964 |
| Value of materials used | $£^{\prime} 000$ | 3,195 | 36,668 | 58,237 | 69,962 | 75,129 | 76,256 |
| Value of production | £'000 | 3,655 | 38,633 | 49,032 | 54,637 | 57,036 | 63,198 |
| Total value of output | £'000 | 6,955 | 76,292 | 108,660 | 126,250 | 133,973 | 141,418 |
| Value of land and buildings | £'000 | 1,627 | 11,270 | 13,829 | 16,885 | 19,992 | 25,306 |
| Value of plant and machinery | £'000 | 897 | 8,168 | 9,709 | 11.915 | 13,854 | 16,409 |
| Horse-power of engines ordinarily in | use h.p. | 12,043 | 66,512 | 74,088 | 81,058 | 83,279 | 91,991 |

(a) Not available for publication, figures are included in the total for Australia.
10. Railway and Tramway Workshops (Government and Local Authority).-The railway and tramway workshops, which form an important part of Class IV., are chiefly owned by State Governments and Local Authorities. Workshops (fourteen in 1956-57) controlled by non-public bodies are not included in the figures below :-

TRAMCARS AND RAILWAY ROLLING STOCK.(a)
1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 41 | 22 | 13 | 15 | 27 | 7 | 125 |
| Number of persons employed | 15,548 | 7,580 | 6,671 | 4,292 | (b) | (b) | 38,780 |
| Salaries and wages paid . . £'000 | 14,197 | 6,554 | 5,418 | 3,772 | (b) | (b) | 33,670 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 439 | 204 | 137 | 140 | (b) | (b) | 1,090 |
| Value of materials used.. $£^{\prime} 0000$ | 7,734 | 5,417 | 3,276 | 2,790 | (b) | (b) | 21,565 |
| Value of production . . £'000 | 16,704 | 8,878 | 6,326 | 4,699 | (b) | (b) | 41,172 |
| Total value of output $\therefore$. $£^{\prime} 000$ | 24,879 | 14,499 | 9,739 | 7,629 | (b) | (b) | 63,827 |
| Value ofland and buildings $£$ | 6,061 | 1,918 | 799 | 1,492 | (b) | (b) | 11,494 |
| Value of plant and machinery £'000 | 9,273 | 1,075 | 1,087 | 1,877 | (b) | (b) | 14,673 |
| Horse-power of engines ordinarily in use h.p. | 43,872 | 23,005 | 17,491 | 24,096 | (b) | (b) | 122,852 |
| Australia. |  |  |  |  |  |  |  |
| Items. |  | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| Number of factories |  | 117 | 123 | 124 | 123 | 125 | 125 |
| Number of persons employed |  | 27,310 | 39,073 | 39,262 | 38,599 | 38,357 | 38,780 |
| Salaries and wages paid .. | £'000 | 6,721 | 28,002 | 28,425 | 30,777 | 33,159 | 33,670 |
| Value of power, fucl, etc., used | £'000 | 226 | 907 | 994 | 1,025 | 1,061 | 1,090 |
| Value of materials used | £'000 | 4,976 | 16,706 | 17,093 | 18,818 | 20,555 | 21,565 |
| Value of production | £'000 | 8,021 | 33,875 | 34,354 | 37,505 | 40.404 | 41,172 |
| Total value of output | £'000 | 13,223 | 51,488 | 52,441 | 57,348 | 62,020 | 63,827 |
| Value of land and buildings | £'000 | 6,737 | 9,279 | 9,730 | 10,524 | 11,076 | 11,494 |
| Value of plant and machinery | £'000 | 5,390 | 10,701 | 12,166 | 13,124 | 14,072 | 14,673 |
| Horse-power of engines ordinarily in | use h.p. | 53,671 | 98,251 | 108,478 | 112,184 | 116,775 | 122,852 |

(a) Government and Local Authority only. (b) Not available for publication, figures included in the total for Australia.

A railway workshop in the Northern Territory is chiefly engaged in making repairs to rolling stock, etc., no new goods being manufactured. Particulars of this establishment are not included in any of the tables in this chapter.
11. Motor Vehicles.-The industries catering for the motor trade are included in Class IV., Industrial Metals, Machines and Conveyances. In the table below a summary is given of the principal statistics for 1956-57 for each branch of industry associated with the motor trade of Australia.

MOTOR VEHICLES : CONSTRUCTION, ASSEMBLY, REPAIRS, ETC., AUSTRALIA. 1956-57.

| Items. | Construction and Assembly. | Repairs. | Motor Bodies. (a) | Motor Accessories. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 70 | 8,556 | 1,457 | 251 | 10,334 |
| Number of persons employed | 16,908 | 55,478 | 25,460 | 9,634 | 107,480 |
| Salaries and wages paid $\quad$.. ${ }^{\prime} 000$ | 16,144 | 38,987 | 22,515 | 8,636 | 86,282 |
| Value of power. fuel, etc., used .. $£^{\prime} 000$ | 1,029 | 1,217 | 896 | 605 | 3,747 |
| Value of materials used .. .. £'000 | 25,495 | 41,640 | 42,586 | 10,576 | 120,297 |
| Value of production .. .. £000 | 25,131 | 59,736 | 32,958 | 14,193 | 132,018 |
| Total value of output .. .. £'000 | 51,655 | 102,593 | 76,440 | 25,374 | 256,062 |
| Value of land and buildings .. $£^{\prime} 000$ | 14,260 | 45,997 | 12,786 | 5,774 | 78,817 |
| Value of plant and machinery . $\because \quad £^{\prime} 000$ | 12,908 | 11,713 | 10,247 | 6,022 | 40,890 |
| Horse-power of engines ordinarily in use h.p. | 53,957 | 60,113 | 56,696 | 36,026 | 206,792 |

(a) Includes motor body repairing, panel beating, duco spraying, etc.

In the next table, similar details are shown on a State basis for 1956-57 and for Australia for selected years for these industries combined.

MOTOR VEHICLES : CONSTRUCTION, ASSEMBLY, REPAIRS, ETC. 1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 4,22.1 | 2,656 | 1,303 | 933 | 930 | 291 | 10,334 |
| Number of persons employed | 35,602 | 36,406 | 10,633 | 16,494 | 6,233 | 2,112 | 107,480 |
| Salaries and wages paid . . ' $^{\prime} 000$ | 27,801 | 30,520 | 7,024 | 14,845 | 4,565 | 1,527 | 86,282 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 1,186 | 1,513 | 216 | 607 | 185 | 40 | 3,747 |
| Value of materials used .. $£$ | 38,585 | 39,308 | 7,721 | 26,160 | 6,839 | 1,684 | 120,297 |
| Value of production .. £000 | 44,870 | 45,270 | 12,677 | 19,631 | 7,209 | 2,361 | 132,018 |
| Total value of output ... $£ 000$ | 84,641 | 86,091 | 20,614 | 46,398 | 14,233 | 4,085 | 256,062 |
| Value of land and buildings $£^{\prime} 000$ | 29,307 | 28,658 | 5,908 | 8,314 | 4,708 | 1,922 | 78,817 |
| Value of plant and machinery $£$ | 12,511 | 16,539 | 1,939 | 7,849 | 1,655 | 397 | 40,890 |
| Horse-power of engines ordinarily in use $\quad . . \quad$.. $\quad$ h.p. | 60,845 | 76,342 | 12,442 | 41,846 | 13,100 | 2,217 | 206,792 |

Australia.


The table below shows the production and imports of motor bodies for 1938-39 and 1952-53 to 1957-58 :-

PRODUCTION AND IMPORTS OF MOTOR BODIES( $a$ ) : AUSTRALIA.

| Iterns. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. | $\begin{gathered} 1957-58 . \\ (b) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Motor Bodies(a)- Made | 79,436 | 90,822 | 114,978 | 127,709 | 132,085 | 123,187 | 163,994 |
| Assembled from Panels imported or made elsewhere .. No. | (c) | 21,566 | 43,077 | 62,408 | 94,676 | 77.548 | 83,819 |
| Imported (d) .. .. No. | 532 | 7,568 | 26,874 | 37,924 | 19,041 | 7,062 | 5,890 |

(a) Excludes sidecars. (b) Preliminary-subject to revision. (c) Not available.
(d) Includes bodies on complete vehicles imported.
12. Agricultural Machines and Implements.-Owing to the extensive agricultural activities conducted in Australia and the demand for modern mechanized farm equipment, the manufacture of agricultural implements constitutes an important branch of Australian
industry. The articles manufactured include a wide range of implements for tillage, seeding and planting, and the harvesting of crops. Other farm machinery made includes windmills, chaff-cutters and machinery used in the dairying industry.

The following table shows details of establishments classified as agricultural implement works in each State for 1956-57 and for Australia for a series of years.

AGRICULTURAL MACHINES AND IMPLEMENTS.
1956-57.

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

Australia.

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

13. Wireless and Amplifying Apparatus.-The introduction of wireless broadcasting in 1923 gave rise to a new industry in Australia. Early statistical details of the industry are not available as they were grouped together with other electrical apparatus. In 1930-31, a new classification of factories was adopted and Wireless Apparatus was shown as a separate industry. The industry is confined mainly to New South Wales and Victoria, but is becoming increasingly important in South Australia. During the 1939-45 War, considerable expansion took place in the industry to meet the requirements of the fighting services and apart from a slight drop in output in 1945-46, and in 1952-53, this expansion has continued. The number of broadcast listeners' licences increased from a third of a million in 1930-31 to nearly $2,138,000$ at 30 th June, 1958 and this increase reflects the advancement of the industry during that period. At 30th June, 1958, 291,000 television viewers' licences had been issued.

WIRELESS AND AMPLIFYING APPARATUS: AUSTRALIA.

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

(a) Including radiograms and car radios.

Note.-There were 380,000 wireless receiving sets (including radiograms) and 285,000 television receiving sets made in 1957-58.
14. Cotton.-(i) General. Cotton has been grown in Australia since 1860 , but never on a very large scale. The average annual quantity of unginned cotton produced during the five years ended $1938-39$ was 18 million lb . and slightly over 4 million lb . in the five years ended 1956-57. Arising out of the development in the local manufacture of cotton materials and the further expansion following the outbreak of war in 1939. plans were completed for an extension of the area devoted to the cultivation of this crop. The growing of cotton, which is restricted to Queensland, is referred to in some detail in Chapter XXII.-Agricultural Production.
(ii) Ginning. The ginning and marketing of cotton is controlled by the Queensland Cotton Board. The Board operates ginneries and processes by-products. The production of raw cotton is insufficient for local factory requirements and is supplemented by imports from overseas, chiefly (in 1957-58) from India, Pakistan, Brazil, Mexico, Peru and the United States of America.
(iii) Spinning and Weaving. The post war expansion in the spinning and weaving section of the cotton industry marks an important stage in its development. New factories have been established and Australia is now producing an extensive range of cotton goods, including duck and canvas from cotton or flax, denims, drill, etc., tyre cord and tyre cord fabric. The number of establishments engaged in cotton spinning and weaving in Australia and other particulars of the industry are shown in the following table for the years 1938-39, and 1952-53 to 1956-57.

COTTON SPINNING AND WEAVING : AUSTRALIA.

| Items. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 33 | 93 | 96 | 96 | 97 | 91 |
| Number of persons employed | 3,589 | 7,673 | 9,470 | 9,582 | 9,598 | 9,754 |
| Salaries and wages paid .. .. £ $£^{\prime} 000$ | 493 | 5,090 | 6,602 | 6,845 | 7,297 | 7,799 |
| Value of power, fuel, etc., used .. £'000 | 50 | 551 | 690 | 706 | 703 | 890 |
| Value of materials used .. .. $£^{\prime} 000$ | 1,357 | 14,747 | 18,083 | 18,505 | 18,571 | 19,485 |
| Value of production .. .. £ ${ }^{\prime} 000$ | 979 | 8,126 | 10,809 | 11,343 | 12,227 | 14,202 |
| Total value of output . . . . £ 0000 | 2,386 | 23,424 | 29,582 | 30,554 | 31,501 | 34,577 |
| Value of land and buildings $\quad . . \quad £^{\prime} 000$ | 704 | 3,951 | 4,104 | 5.078 | 5,719 | 6,478 |
| Value of plant and machinery $\quad \therefore \quad £^{\prime} 000$ | 736 | 4,370 | 4,411 | 4,355 | 4,637 | 5,312 |
| Horse-power of engines ordinarily in use h.p. | 9.128 | 36,517 | 33,201 | 34,356 | 34,657 | 34,568 |

15. Wool Carding, Spinning and Weaving.-The importance of this industry is emphasised by the fact that Australia is the world's chief source of wool and the development of the woollen industry since its establishment at an early period in Australian history is of singular interest. The production consists chiefly of woollen cloth and tweed, worsted cloth, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability.

## WOOL CARDING, SPINNING AND WEAVING.

1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 44 | 84 | 4 | 3 | 3 | 5 | 143 |
| Number of persons employed | 6,595 | 12,013 | 974 | 640 | (a) | (a) | 23,217 |
| Salaries and wages paid £'000 | 4,524 | 8,925 | 560 | 426 | (a) | (a) | 16,340 |
| Value of power, fuel, etc., used f'000 | 417 | 812 | 38 | 47 | (a) | (a) | 1,479 |
| Value of materials used .. $£^{\prime} 000$ | 13,553 | 24,716 | 2,340 | 1,234 | (a) | (a) | 49,303 |
| Value of production .. $\mathbf{f}^{\prime} 000$ | 7,153 | 14,674 | 1,339 | 646 | (a) | (a) | 27,649 |
| Total value of output .. £'000 | 21,123 | 40,202 | 3,717 | 1,927 | (a) | (a) | 78,431 |
| Value of land and buildings $£$ '000 | 2,431 | 5,533 | 190 | 252 | (a) | (a) | 9,019 |
| Value of plant and machinery £'000 | 3,077 | 6,264 | 327 | 282 | (a) | (a) | 10,855 |
| Horse-power of engines ordinarily in use <br> . .. h.p. | 17,556 | 69,834 | 3,555 | 1,876 | (a) | (a) | 99,385 |

(a) Not available for publication, figures are included in the total for Australia.

## WOOL CARDING, SPINNING AND WEAVING-continued.

Australia.

(a) Includes Woolscouring Works in Victoria and Tasmania and Woolscouring Works and Fellmongeries in South Australia (b) Includes production in other industries.
(c) Includes mixtures.
16. Hoisery and Other Knitted Goods.-Details for each State for 1956-57 and for Australia for a series of years are shown in the following table :-

## HOSIERY AND OTHER KNITTED GOODS.

1956-57.

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

Australia.

| Iiems. |  |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |

The following quantities of yarn were used in these establishments during 1956-57:Worsted or woollen, $8,536,251 \mathrm{lb}$.; mixtures predominantly woollen or worsted, $1,064,164 \mathrm{lb}$; cotton, $9,618,390 \mathrm{lb}$.; mercerised cotton, $322,135 \mathrm{lb}$.; cotton and rayon, $11,600 \mathrm{lb}$. ; rayon, spun, $888,478 \mathrm{lb}$.; rayon filament, $3,646,37 \mathrm{l} \mathrm{lb}$.; silk, $4,132 \mathrm{lb}$.; nylon, spun, $936,332 \mathrm{lb}$.; nylon filament, $2,358,728 \mathrm{lb}$.; other yarns, $677,159 \mathrm{lb}$. Production of garments and stockings is shown in ! 10 (see p. 182).
17. Tanning, Currying and Leather Dressing.-(i) Details of Industry. In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser sorts of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

## TANNING, CURRYING AND LEATHER DRESSING.

1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 65 | 40 | 13 | 9 | 5 | 1 | 133 |
| Number of persons employed | 1,782 | 1,994 | 583 | 199 | (a) | (a) | 4,746 |
| Salaries and wages paid . . $£^{\prime} 000$ | 1,722 | 1,851 | 473 | 183 | (a) | (a) | 4.383 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 188 | 185 | 40 | 21 | (a) | (a) | 446 |
| Value of materials used .. $£$ '000 | 4,773 | 4,409 | 1,576 | 538 | (a) | (a) | 11,738 |
| Value of production .. £'000 | 2,130 | 2,388 | 699 | 329 | (a) | (a) | 5,736 |
| Total value of output . . $£$ | 7,091 | 6,982 | 2,315 | 888 | (a) | (a) | 17,920 |
| Value of land and buildings $£^{\prime} 000$ | '968 | 1,074 | 107 | 87 | (a) | (a) | 2,314 |
| Value of plant and machinery $£$ '000 | 891 | 906 | 257 | 149 | (a) | (a) | 2,264 |
| Horse-power of engines ordinarily in use .. .. h.p. | 11,622 | 12,669 | 3,711 | 1,691 | (a) | (a) | 30,799 |

(a) Not available for publication; figures are included in the total for Australia.

Australia.

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

(ii) Materials Used and Articles Produced. The quantities of materials used and leather produced in tanneries in each State in 1956-57 are shown in the following table :TANNERIES : MATERIALS USED AND PRODUCTION, 1956-57.

| Particulars. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Materials used- |  |  |  |  |  |  |  |
| Hides (cattle)- |  |  |  |  |  |  |  |
| Yearling ( . No. | 124,377 | 36,609 | 11,363 | (a) | (a) |  | 180,858 |
| Light Hides(b) | 310,574 | 525,593, | 193,975 | 63,742 | (a) | (a) | 1,148,427 |
| Heavy Hides(c) .. | 428,302 | 476,953 | 193,594 | 63,041 | (a) | (a) | 1,226,784 |
| Skins- |  |  |  |  |  |  |  |
| Calf Goat | 714,367 | 278,914 | $\underset{(a)}{102,296}$ | (a) |  | (a) | $1,097,011$ 391,664 |
| Sheep including Pelts " | 2,004,556 | 457,069 | (a) | (a) |  |  | 2,951,531 |
| Marsupial .. ", | 24,877 | (a) | (a) | (a) | (a) | . | 89,137 |
|  | 2,133 | 5,092 | 847 | (a) |  | (a) | 8,838 |
| Mallet and Other | (a) | (a) | (a) |  | (a) |  | 901 |
| Tanning extract (veg.) used ", | 2,231 | 2,917 | 1,823 | (a) | 799 | (a) | 8,163 |
| Articles producedLeather made- |  |  |  |  |  |  |  |
| Sole . . . Ib. | 8,189,254 | 13,976,306 | 5,947,926 | (a) | 881,759 | (a) | 30,583,326 |
| Harness, Belting, etc. | 656,124 | 422,132 | (a) | (a) | (a) | (a) | 2,553,279 |
|  | (a) | 1,005,848 | (a) | (a) | (a) | $\cdots$ | 1,433,819 |
| Dressed and Upper from Hides- |  |  |  |  | (a) | . | 1,433,819 |
| Sold by Measurement- |  |  |  |  |  |  |  |
| Patent - sq. ft. | (a) | 1,684,902 |  | (4) ${ }^{(435,492}$ | (a) | (a) | $2,796,060$ $53,814,694$ |
| All Other ${ }^{\text {Sold by }}$ Weight (all | 20,336,902 | 19,685,917 | 8,320,415 | 3,835,492 | (a) | ) | 53,814,694 |
| kinds) $\therefore$ lb. | 47,903. | (a) | (a) | . | (a) | (a) | 162,160 |
| Dressed from skins- |  |  |  |  |  |  |  |
| Calf $\quad . . \quad$ sq. ft. | 4,488,142 | 2,096,728 | 678,054 | (a) | (a) | (a) | 7,272,663 |
| Goat | 1,768,157 | (a) | (a) |  |  |  | 1,875,547 |
| Sheep | 8,100,665 | 1,142,573 | (a) | (a) |  |  | 11,221,661 |
| Marsupial .. "," | 122,481 | 650,442 | (a) | (a) | (a) |  | 960,174 |

(a) Not available for publication; figures are included in the total for Australia (b) Up to 45 lb . (c) Over 45 lb .
18. Tailoring and Ready-made Clothing.-Statistics showing the distribution of this industry among the States in 1956-57 and for Australia for a series of years are shown in the following table :-

TAILORING AND READY-MADE CLOTHING.
1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 964 | 621 | 125 | 101 | 119 | 14 | 1,944 |
| Number of persons employed | 17,202 | 10,163 | 2,218 | 1,419 | 736 | 182 | 31,920 |
| Salaries and wages paid $£^{\prime} 000$ | 10,091 | 6,497 | 1,019 | 720 | 336 | 97 | 18,760 |
| Value of power, fuel, etc., $\quad £^{\prime} 000$ used | 217 | 144 | 23 | 20 | 10 | 2 | 416 |
| Value of materials used ${ }^{\prime}$ ¢ 000 | 19,020 | 13,078 | 2,319 | 850 | 542 | 74 | 35,883 |
| Value of production .. $\mathbf{f}^{\prime} 000$ | 15,930 | 10,481 | 1,717 | 1,001 | 552 | 130 | 29,811 |
| Total value of output .. $f^{\prime} 000$ | 35,167 | 23,703 | 4.059 | 1,871 | 1,104 | 206 | 66,110 |
| Value of land and buildings $£^{\prime} 000$ | 5,061 | 3,420 | 642 | 588 | 361 | 65 | 10,137 |
| Value of plant and machinery .. .. £’000 | 1,506 | 1,067 | 141 | 96 | 42 | 9 | 2,861 |
| Horse-power of engines ordinarily in use .. .. h.p. | 4,952 | 3,099 |  |  | 166 | 27 | 9,133 |
| Australia. |  |  |  |  |  |  |  |
| Items. |  | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| Number of factories |  | 1,177 | 1,961 | 1,963 | 1,985 | 1,952 | 1,944 |
| Number of persons employed |  | 26,499 | 32,209 | 33,264 | 33,384 | 32,587 | 31,920 |
| Salaries and wages paid | $\chi^{\prime}, 000$ | 3,168 | 15,681 | 17.215 | 17,968 | 18,261 | 18.760 |
| Value of power, fuel, etc., used | f'000 | 72 | 363 | 380 | 390 | 393 | 416 |
| Value of materials used | f'000 | 4.947 | 28,767 | 33.598 | 34,237 | 35,941 | 35,883 |
| Value of production | £'000 | 4,812 | 23,581 | 26,076 | 28.0 .31 | 28,940 | 29,811 |
| Total value of output | £'000 | 9,831 | 52,711 | 60,054 | 62,658 | 65,274 | 66,110 |
| Value of land and buildings | £'000 | 3,176 | 7.573 | 8,251 | 8,917 | 9,484 | 10,137 |
| Value of plant and machinery | $f^{\prime} 000$ | 356 | 2,469 | 2,523 | 2,663 | 2,746 | 2,861 |
| Horse-power of engines ordinarily in | use h.p. | 2,607 | 10,693 | 9,3,9 | 9,198 | 9,017 | 9,133 |

19. Dressmaking and Millinery Establishments.-Particulars of dressmaking and millinery establishments in Australia for the years 1938-39 and 1952-53 to 1956-57 are shown in the following table :-

DRESSMAKING AND MILLINERY : AUSTRALIA.

| Items. |  | 1938-39. | 1952-53. | 1953-54. | 1954-55 | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 869 | 1,405 | 1,433 | 1,411 | 1,410 | 1,311 |
| Number of persons employed |  | 16,398 | 18,913 | 19,197 | 18.014 | 17,675 | 16,265 |
| Salaries and wages paid | £,000 | 1,653 | 8.490 | 9,230 | 8,975 | 9,063 | 8,783 |
| $V$ Value of power, fuel, etc., used | £'000 | 33 | 170 | 187 | 176 | 177 | 185 |
| Value of materials used | £'000 | 2.610 | 11.746 | 13,634 | 13,109 | 13,029 | 12,447 |
| Value of production | £'000 | 2.592 | 13,193 | 14,392 | 14,501 | 14,585 | 14,244 |
| Total value of output | £'000 | 5,235 | 25,109 | 28.213 | 27,786 | 27,791 | 26,876 |
| Value of land and buildings | £'000 | 2,052 | 4,726 | 5,033 | 5,256 | 5,788 | 5,966 |
| Value of plant and machinery | £'000 | 189 | 1,065 | 1,108 | 1,123 | 1,174 | 1,152 |
| Horse-power of engines ordinarily | in use h.p. | 1,732 | 4,790 | 4,858 | 4,740 | 4,697 | 4,635 |

20. Shirts, Collars and Underclothing.-Particulars of this industry are shown below for each State for 1956-57 and for Australia for a series of years :-

## SHIRTS, COLLARS AND UNDERCLOTHING.

1956-57.

| Items. | N.S.W. | Vic. | Q'land. | Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 163 | 176 | 19 | 23 | 14 | 2 | 397 |
| Number of persons employed | 4,509 | 6,625 | 1,053 | 424 | (a) | (a) | 13,157 |
| Salaries and wages paid £'000 | 2,653 | 4,036 | 492 | 206 | (a) | (a) | 7,640 |
| Value of power, fuel, etc., $\quad £^{\prime} 000$ used | 1 | 61 | 8 | 4 | (a) | (a) | 129 |
| Value of materials used .. $\mathbf{f}^{\prime} 000$ | 6,785 | 8,140 | 748 | 259 | (a) | (a) | 16,285 |
| Value of production .. $\mathbf{£}^{\prime} 000$ | 4,184 | 6,452 | 699 | 294 | (a) | (a) | 12,051 |
| Total value of output .. $\mathbf{£}^{\prime} \mathbf{0 0 0}$ | 11,020 | 14,653 | 1,455 | 557 | (a) | (a) | 28,465 |
| Value of land and buildings $\mathbf{£}^{\prime} 000$ | 1,345 | 1,814 | 179 | 91 | (a) | (a) | 3,543 |
| Value of plant and machinery .. .. f'000 $^{\prime}$ | 480 | 615 | 66 | 25 | (a) | (a) | 1,229 |
| Horse-power of engines ordinarily in use .. .. h.p. | 1,680 | 2,905 | 258 | 158 | (a) | (a) | 5,177 |

(a) Not available for publication ; figures are included in the total for Australia.

SHIRTS, COLLARS AND UNDERCLOTHING-continued. Australia.

21. Boots and Shoes.-(i) Details of Industry. Boot and shoe factories hold an important place in respect of both employment afforded and extent of output. The following tables refer to boot and shoe factories as distinct from those devoted to repairing, except in Tasmania, where it has been necessary to include details of boot and shoe repairing, in order to avoid disclosure of confidential information for that State. Factories engaged in the manufacture of sand shoes, goloshes and gum, etc., boots of rubber are not included here, being classified under Rubber Goods, see para. 38, page 210.

## BOOTS AND SHOES.

1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas.(a) | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 176 | 222 | 29 | 18 | 11 | 18 | 474 |
| Number of persons employed | 6,996 | 11,136 | 1,416 | 1,162 | 592 | 130 | 21,432 |
| Salaries and wages paid £'000 $^{\prime}$ | 5,026 | 7,974 | 896 | 867 | 383 | 88 | 15,234 |
| Value of power, fuel, etc , used <br> . $£^{\prime} 000$ | 88 | 134 | 12 | 14 | 7 | 2 | 257 |
| Value of materials used $£^{\prime}$ | 6,958 | 12,027 | 1,441 | 1,223 | 439 | 133 | 22,221 |
| Value of production . . £'000 | 7,155 | 11,171 | 1,102 | 1,132 | 530 | 132 | 21,222 |
| Total value of output . . $\mathbf{£}^{\prime} 000$ | 14,201 | 23,332 | 2,555 | 2,369 | 976 | 267 | 43,700 |
| Value of land and buildings $£$ '000 | 1,528 | 2,023 | 206 | 295 | 166 | 49 | 4,267 |
| Value of plant and machinery $\quad . \quad$.. $£^{\prime} 000$ | 816 | 2,081 | 330 | 339 | 128 | 21 | 3,715 |
| Horse-power of engines ordinarily in use | 4,672 | 9,265 | 958 | 880 | 600 | 121 | 16,496 |
| Australia. |  |  |  |  |  |  |  |
| Items. |  | 1945-46. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| Number of factories | $\cdots$ | 383 | 509 | 520 | 516 | 494 | 474 |
| Number of persons employed |  | 18,264 | 20,920 | 22,953 | 22,323 | 21,557 | 21,432 |
| Salaries and wages paid .. | $£^{\prime} 000$ | 4,408 | 12,430 | 14,215 | 14,241 | 14,310 | 15,234 |
| Value of power, fuel, etc., used | $£^{\prime} 000$ | 75 | 197 | 225 | 227 | 233 | 257 |
| Value of materials used .. | $£^{\prime} 000$ | 7,520 | 17,668 | 20,508 | 21,020 | 21,812 | 22,221 |
| Value of production | £'000 | 6,472 | 17,162 | 19.444 | 19,640 | 20,480 | 21,222 |
| Total value of output | £'000 | 14,067 | 35,027 | 40,177 | 40,887 | 42,525 | 43,700 |
| Value of land and buildings | $£^{\prime} 000$ | 1,518 | 3,227 | 3,491 | 3,733 | 3,846 | 4,267 |
| Value of plant and machinery | £'000 | 1,222 | 2,653 | 3.152 | 3,380 | 3,646 | 3,715 |
| Horse-power of engines ordinarily in | e h.p. | 9,678 | 18,214 | 16,679 | 17,488 | 16,485 | 16,496 |

(a) Includes details of boot and shoe repairing.
(ii) Quantity and Value of Production. The number and value of boots, shoes and slippers made in factories producing boots and shoes in each State are shown for $1956-57$ in the following table. Particulars relating to the output of sand shoes, goloshes and gum, etc., boots of rubber are not included:-

BOOT AND SHOE FACTORIES : OUTPUT, 1956-57.

| Particulars. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Boots, shoes and sandals 7 , |  |  |  |  |  |  |  |
| pairs | 7,145,572 | 10,125,340 | 1,410,572 | 1,530,667 | (a) | (a) | 20,861,361 |
| Slippers . . prer ${ }^{\text {¢ }}$ | $12,976,752$ $1,847,941$ | $20,202,844$ $5,055,132$ | 2,214,450 | $2,310,565$ 69,546 | $(a)$ 373,138 | (a) | $38,621,389$ $7,684,224$ |
| Slippers $\quad$ £ | 1,459,911 | 2,771,413 | 203,523 | 38,619 | 245,298 | $\cdots$ | 4,718,764 |

(a) Not available for publication; figures are included in the total for Australia.

Preliminary figures for 1957-58 were-Boots, Shoes and Sandals, 21,541,000 pairs; and Slippers, 8,905,000 pairs.
22. Flowr-milling.-(i) Details of Industry. The following table shows the position of the flour-milling industry in each State for the year 1956-57 and for Australia for a series of years:-

FLOUR-MILLING.
1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 46 | 34 | 11 | 22 | 20 | 10 | 143 |
| Number of persons employed | 1,663 | 1,391 | 571 | 463 | 504 | 137 | 4,729 |
| Salaries and wages paid. . £'000 | 1,681 | 1,244 | 477 | 421 | 422 | 130 | 4,375 |
| Value of power, fuel, etc., used $£^{\prime} 0000$ | 408 | 223 | 90 | 93 | 115 | 17 | 946 |
| Value of materials used . . $£^{\prime} 000$ | 21,942 | 17,797 | 6,061 | 5,889 | 6,280 | 1,125 | 59,094 |
| Value of production . . ${ }^{\prime}$ '000 | 4,599 | 2,417 | 961 | 689 | 759 | 183 | 9,608 |
| Total value of output . . £'000 | 26,949 | 20,437 | 7,112 | 6,671 | 7,154 | 1,325 | 69,648 |
| Value of land and buildings $£^{\prime}$ '000 | 2,160 | 1,565 | 789 | 312 | 786 | 74 | 5,686 |
| Value of plant and machinery £'000 | 2,461 | 1,353 | 753 | 418 | 624 | 81 | 5,690 |
| Horse-power of engines ordinarily in use <br> .. <br> h.p. | 17,423 | 15,404 | 4,799 | 3,891 | 5,407 | 1,179 | 48,103 |

Australia.

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

(ii) Production of Flour and By-products. The production of flour by the mills in each State (including other than flour mills) for the years 1938-39 and 1952-53 to 1957-58 was as follows :-

FLOUR-MILLING: PRODUCTION OF FLOUR. (a)
(Tons of $\mathbf{2 , 0 0 0} \mathbf{l b}$.

| Year. | N.S.W. | Vic. | Qland. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | 547,162 | 436,829 | 84,314 | 146,262 | 138,583 | 19,582 | 1,372,732 |
| 1952-53 | 543,693 | 592,465 | 132,839 | 201,685 | 227,269 | 28,349 | 1,726,300 |
| 1953-54 | 603,575 | 473,842 | 138,524 | 164,907 | 197,654 | 30,556 | 1,609,058 |
| 1954-55 | 586,549 | 455,906 | 157,904 | 143,840 | 178,851 | 29,969 | 1,553,019 |
| 1955-56 | 571,084 | 454,628 | 169,793 | 154,327 | 193,490 | 27,983 | 1,571,305 |
| 1956-57 | 621,476 | 461,663 | 170,397 | 164,417 | 184,717 | 29,157 | 1,631,827 |
| 1957-58 (b) | 398,525 | 478,520 | 143,247 | 139,601 | 168,869 | 28,350 | 1,357,112 |

(a) Includes wheatmeal for baking and sharps.
(b) Preliminary, subject to revision.

In addition, 633,000 tons ( $2,000 \mathrm{lb}$. per ton) of bran and pollard were produced in 1956-57 and 500,000 tons in 1957-58. The total quantity of wheat ground in flour mills was $74,2 \mathrm{C} 3,000$ bushels in 1956-57 and 62,820.000 bushels in 1957-58.
23. Bakeries.-Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on is given in the table below. It should be noted, however, that the details refer only to establishments coming within the definition of a factory as explained at the beginning of this section. For that reason, the tables do not give complete details of the industry, as a large number of bakeries, etc. not coming within the definition are excluded. 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 is deemed necessary.

## BAKERIES (INCLUDING CAKES AND PASTRY).

1956-57.

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

Australia.(a)

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

(a) Includes confectionery in Tasmania.
24. Sugar-mills.-(i) General. Sugar-cane is grown in New South Wales and Queensland and particulars of area, yield, etc., are given in extended detail in Chapter XXII.—Agricultural Production.

The products of the sugar-mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Particulars of cane crushed and sugar produced embodied in the following table refer to the quantities treated during the years ended 30th June, irrespective of the season in which the cane was grown ; consequently, the figures relating to cane crushed and sugar produced may differ slightly from those given in Chapter XXII.-Agricultural Production, which relate to harvest years.
(ii) Details for States. The following table shows details of the operations of sugar mills in New South Wales and Queensland for the years 1938-39 and 1952-53 to 1956-57 :-

## SUGAR-MILLS.

| Items. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New South Wales. |  |  |  |  |  |  |
| Number of factories | 3 | 3 | 3 | 3 | 3 | 3 |
| Number of persons employed.. | 212 | 138 | 156 | 187 | 152 | 153 |
| Cane crushed $\quad .$. tons | 337,038 | 125,714 | 263,249 | 222,313 | 284,539 | 294,087 |
| Raw sugar produced (94 net litre) . . .. tons | 45,106 | 14,272 | 34,004 | 26,301 | 36,028 | 35,918 |
| Queensland. |  |  |  |  |  |  |
| Number of factories | 33 | 31 | 31 | 31 | 31 | 31 |
| Number of persons employed. . | 4,419 | 6,495 | 7,358 | 7,272 | 7,044 | 7,099 |
| Cane crushed $\quad$ tons | 5,432,193 | 6,841,536 | 8,751,063 | 9,864,304 | 8,616,163 | 8,978,081 |
| Raw sugar produced (94 net tirre) .. .. tons | 775,064 | 934,614 | 1,220,383 | 1,301,245 | 1,135,685 | 1,171,879 |
| Molasses- ${ }^{\text {Sold to distilleries . .'000 gals }}$ |  |  |  |  |  | 24,034 |
| Used as fodder . . 000 gals | 8,276 4,237 | 15,774 5,887 | 23,323 5,486 | 23,167 5,753 | 22,772 | 24,034 5,522 |
| Used as manure . . " " | 3,293 | 7,499 | 11,466 | 10,501 | 10,637 | 9,154 |
| Run to waste .. " ", | 499 | 76 | 168 | 233 | 10,63 | 51 |
| Burnt as fuel . ${ }^{\text {a }}$, " | 3,749 | 934 | 183 | 1,079 | 1,519 | 1,402 |
| Sold or used for other purposes .. ..'000 gals | 232 | 426 | 516 | 473 | 588 | 521 |
| Total molasses disposed of ..'000 gals | 20,286 | 30,596 | 41,142 | 41,206 | 40,986 | 40,684 |

25. Sugar-refining.-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 1956-57, there were two sugar refineries in Queensland and one each in New South Wales, Victoria, South Australia and Western Australia. The total quantity of raw sugar treated amounted to 499,289 tons for a yield of 480,393 tons of refined sugar.
26. Confectionery.-The figures for 1956-57 for each State and for Australia for a series of years are shown hereunder :-

CONFECTIONERY.
1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust.(b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 91 | 82 | 18 | 16 | 6 | (a) | 213 |
| Number of persons employed | 3,044 | 2,938 | 210 | 327 | 299 | (a) | 6,818 |
| Salaries and wages paid £'000 | 2,333 | 2,068 | 97 | 191 | 177 | (a) | 4,866 |
| Value of power, fuel, etc., used $£$ '000 | 259 | 205 | 8. | 21 | 16 | (a) | 509 |
| Value of materials used . . £'000 | 8,051 | 6,092 | 279 | 504 | 465 | (a) | 15,391 |
| Value of production . . £'000 | 5,549 | 3,525 | 230 | 274 | 307 | (a) | 9,885 |
| Total value of output $\quad$ £ ${ }^{\prime} 000$ | 13,859 | 9,822 | 517 | 799 | 788 | (a) | 25,785 |
| Value of land and buildings $£^{\prime} 000$ | 1,411 | 1,412 | 124 | 208 | 84 | (a) | 3,239 |
| Value of plant and machinery $£$ '000 | 1,608 | 1,705 | 72 | 121 | 76 | (a) | 3,582 |
| Horse-power of engenes ordinarily in use .. .. h.p. | 12,308 | 12,816 | 413 | 1,342 | 469 | (a) | 27,348 |
| AUSTRalia.(b) |  |  |  |  |  |  |  |
| Items. |  | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| Number of factories | - | 148 | 256 | 249 | 238 | 226 | 213 |
| Number of persons employed |  | 7,256 | 6,873 | 6,976 | 7,069 | 7,183 | 6,818 |
| Salaries and wages paid .. | £’000 | 1,041 | 4,084 | 4,382 | 4,516 | 4,805 | 4,866 |
| Value of power, fuel, etc., used | £'000 | 107 | 436 | 444 | 447 | 473 | , 509 |
| Value of materials used | £'000 | 3,102 | 12,554 | 13,857 | 14,917 | 15,583 | 15,391 |
| Value of production | £'000 | 2,418 | 7,910 | 8,307 | 8,320 | 8,932 | 9,885 |
| Total value of output | £'000 | 5,627 | 20,900 | 22,608 | 23,684 | 24,988 | 25,785 |
| Value of land and buildings | £'000 | 1,423 | 2,510 | 2,650 | 2,964 | 3,324 | 3,239 |
| Value of plant and machinery | £'000 | 1,364 | 2,872 | 3,039 | 3,368 | 3,612 | 3,582 |
| Horse-power of engines ordinarily in | use h.p. | 16,154 | 26,002 | 28,763 | 27,374 | 29,156 | 27,348 |

(a) Not available for publication. Included with bakeries.
(b) Excludes Tasmania.
27. Jam, Fruit and Vegetable Canning, Pickles, Sauces, Vinegar.-(i) Details of Industry. The following table shows particulars of factories included in this class for each State for 1956-57 and for Australia for a series of years :-

JAM, FRUTT AND VEGETABLE CANNING, PICKLES, SAUCES, VINEGAR.
1956-57.

(ii) Production. During the 1939-45 War, production of jams increased greatly and an output of 171 million lb . was attained in 1943-44. Production afterwards decreased, but attained a new record of 198.5 million lb . in 1947-48. It dropped to 92.2 million lb . in 1956-57. Preliminary figures for 1957-58 show production as being 108.0 million lb .

The peak output of preserved fruit occurred in 1953-54 with 338.6 million lb . compared with the previous highest level of 256.1 million lb. attained in 1951-52. Production in 1956-57 was 289.5 million lb. and preliminary figures for 1957-58 show production as being 340.3 million lb .

There has also been a marked development in the production of canned vegetables. In 1938-39, output totalled 10.3 million lb . but, as a result of the war-time demand by the armed services, production reached the record level of 119.1 million lb. in 1944-45. However, it has since declined and in 1956-57 amounted to 98.4 million lb. Preliminary figures for 1957-58 show production as being 85.1 million 1 lb .

The following table shows the total quantity and value of jams, pickles, sauces and other items manufactured in each State in 1956-57:-

JAMS, PRESERVED FRUIT AND VEGETABLES, PICKLES AND SAUCES : 1956-57.

(a) Not available for publication. Figures are included in the total for Australia.
(b) Including quantities made and used in the works producing them.
28. Bacon-curing.-(i) Details of Industry. The table hereunder shows particulars of factories engaged in bacon-curing in each State for 1956-57 and for Australia for a series of years :-

BACON-CURING.
1956-57.

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

Australia.

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

(ii) Quantity of Production. The number of pigs cured and the quantity of bacon and ham and lard produced in factories in each State for 1956-57 are shown in the following table :-

BACON-CURING FACTORIES : PIGS CURED AND PRODUCTION, 1956-57.

| Particulars. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pigs killed for bacon and |  |  |  |  |  |  |  |
| For curing on own account | 178,959 | 144,262 | 240,056 | 69,225 | \}94,856 |  | $\{757,229$ |
| For curing on commission | 10,255 | 1,952 | 1,212 | 570 | \} 94,856 | 30,310 | $\{14,428$ |
| Pork and green bacon used for- <br> Curing on own account |  |  |  |  |  |  |  |
| '000 1 lb . | 3,148 | 2,260 | (a) | 966 | (a) | $\ldots$ | 7,282 |
| Curing on commission | 4,484 | 52 |  | (a) | (a) | (a) | 4,556 |
| Sugar used .. ton | 46 | 23 | 154 | 20 | 27 | 14 | 284 |
| Finished bacon and ham made (b)- |  |  |  |  |  |  |  |
| On own account '000 lb. | 15,899 | 15,040 | 19,066 | 7,023 | 6,825 | 1,893 | 65,746 |
| On commission *, | 4,996 | 190 | 131 | 56 | 15 | 22 | 5,410 |
| Green bacon and ham : | 376 | 1,950 | 409 | 452 | 1,081 | 413 | 4,681 |
| Lard produced .. cwt. | 3,326 | 6,555 | 20,695 | 4,952 | 6,290 | 944 | 42,762 |

(a) Not available for publication; figures are included in the total for Australia. (b) Includes smoked bacon and ham, cooked ham (not smoked) made for retail sale, and canned bacon and ham.

Bacon and ham and other pig products are dealt with more fully in Chapter XXIV.Farmyard, Dairy and Bee Products.
29. Butter, Cheese and Condensed and Dried Milk.-(i) Details of Industry. The following table shows particulars of butter, cheese and condensed and dried milk factories in each State for 1956-57 and for Australia for a series of years.

## BUTTER, CHEESE AND CONDENSED AND DRIED MILK.

1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 75 | 131 | 83 | 42 | 18 | 22 | 371 |
| Number of persons employed | 2,396 | 5,620 | 1,669 | 819 | 312 | 373 | 11,189 |
| Salaries and wages paid . . £'000 | 2,178 | 5,381 | 1,288 | 630 | 249 | 342 | 10,068 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 659 | 1,598 | ,279 | 117 | 70 | 74 | 2,797 |
| Value of materials used .. $£^{\prime} 000$ | 16,211 | 51,561 | 20,668 | 5,211 | 3,425 | 4,441 | 101,517 |
| Value of production . . $£^{\prime} 000$ | 3,746 | 10,567 | 2,467 | 1,118 | , 530 | 837 | 19,265 |
| Total value of output . . £'000 | 20,616 | 63,726 | 23,414 | 6,446 | 4,025 | 5,352 | 123,579 |
| Value of land and buildings $£$ '000 | 3,175 | 5,836 | 1,689 | 729 | 225 | 331 | 11,985 |
| Value of plant and machinery $\mathrm{f}^{\prime} 000$ | 3,695 | 7,031 | 2,519 | 721 | 367 | 298 | 14,631 |
| Horse-power of engines ordinarily in use h.p. | 29,965 | 40,031 | 25,001 | 8,297 | 2,393 | 2.470 | 108,157 |

Australia.

| Items. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 523 | 384 | 380 | 379 | 375 | 371 |
| Number of persons employed | 6,851 | 10,641 | 10,580 | 10,567 | 11,119 | 11,189 |
| Saiaries and wages paid .. $£^{\prime} 000$ | 1,570 | 8,098 | 8,416 | 8,680 | 9,568 | 10,068 |
| Value of power, fuel, etc., used $£$ | 390 | 2,339 | 2,396 | 2,423 | 2,741 | 2,797 |
| Value of materials used . . £'000 | 29,162 | 97,291 | 94,020 | 100,706 | 106,883 | 101,517 |
| Value of production $\quad$. $£$ | 3,543 | 14,350 | 15,914 | 15,394 | 18,893 | 19,265 |
| Total value of output .. £ $£^{\prime} 000$ | 33,095 | 113,980 | 112,330 | 118,523 | 128,517 | 123,579 |
| Value of land and buildings $£^{\prime} 000$ | 2,880 | 7.571 | 9,365 | 10,037 | 11,188 | 11,985 |
| Value of plant and machinery $£ \times 000$ | 3,067 | 10,250 | 12,083 | 12,553 | 13,923 | 14,631 |
| Horse-power of engines ordinarily in use <br> h.p. | 45,059 | 84,428 | 94,863 | 98,442 | 102,182 | 108,157 |

(ii) Quantity and Value of Production. The next table shows the quantities and values of butter, cheese and condensed milk produced and the quantities of milk used in their production during 1956-57. These details are restricted to factory production and therefore exclude farm output.
BUTTER, CHEESE AND CONDENSED MILK, ETC., FACTORIES : PRODUCTION, 1956-57.

| Particulars. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Materials Used. |  |  |  |  |  |  |  |
| Whole Milk used in manufacture of |  |  |  |  |  |  |  |
| $\begin{array}{lll}\text { Butter } \\ \text { Cheese } & \quad \therefore & . . \\ \end{array}$ | 166,230 8,952 | 412,709 43,865 | 184,863 15,965 | 36,278 $\mathbf{2 5 , 9 6 4}$ | 34,592 | 48,456 | 883,128 98,024 |
| Condensed, Dried and other Milk |  |  |  |  |  |  |  |
| Products ugar.. | $\underset{(a)}{15,146}$ | 63,857 16,392 | $\underset{(a)}{\text { 3,926 }}$ | ( ${ }^{\text {a }}$ ) | (a) | (a) | 88,862 19,176 |

Production.

| Butter | Ton. | Ton. 88.598 | Ton. | Ton. $8,440$ | Ton. | $\begin{aligned} & \text { Ton. } \\ & 10,426 \end{aligned}$ | $\begin{gathered} \text { Ton. } \\ \mathbf{1 8 9 , 8 4 1} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cheese (Green Weight) | 4,019 | 20,541 | 7,137 | 11,959 | 1,182 | 333 | 45,171 |
| Condensed Milk (Sweetened and Unsweetened) | (a) | 45,589 |  | . | (a) | . | 49,701 |
| Concentrated- |  |  |  |  |  |  |  |
| Whole Milk | (a) | (a) | (a) | . | (a) | (a) |  |
| Skim Milk | (a) | (a) | (a) |  | (a) |  | 15,145 |
| Powdered Full Cream Milk - <br> Spray <br> Roller | $\}(a)\{$ | 10,551 376 | $\{(a)$ | (a) | . . | (a) $\{$ | 16,508 1,356 |
| Infants' and Invalids' Foods (including Malted Milk and Milk Sugar (Lactose)) | (a) | (a) |  |  |  | (a) | 13,567 |
| Powdered Skim Milk- ${ }^{\text {- }}$ |  | (a) |  |  |  |  |  |
| Spray | \} 8,454 | 20,718 | (a) | (a) | (a) | $\{$ | 23,170 |
| Ruttermilk and Whey Powder | \% 935 | 20,718 3,489 | 738 | (a) | (a) | , | 7,397 5,552 |
| Casein .. | (a) | 7,297 | (a) |  |  | . | 7,730 |
| Ice Cream Mix- |  |  |  |  |  |  |  |
| Powder | (a) | (a) | (a) | (a) | (a) | . | 515 |
| Liquid | (a) | (a) | (a) | .. | . | . | 3,687 |
| Processed Cheese, Cheese Paste and Cheese Spreads(b) | (a) | (a) | (a) | . | $\cdots$ | $\cdots$ | 15,312 |

(a) Not available for publication; figures are included in the total for Australia. (b) The cheese used in the manufacture of these products is included in Cheese (Green Weight) made as shown above.

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The butter, cheese and condensed milk industries are dealt with more fully in Chapter XXIV.-Farmyard, Dairy and Bee Products.
30. Meat and Fish Preserving.-The industries included in this group are engaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by shipping companies trading between Australia and other parts of the world. The substitution of chilled for frozen meat exported is referred to in Chapter XXIII.-Pastoral Production. In recent years, there has been considerable expansion in the canning of meat and fish.

MEAT AND FISH PRESERVING.
1956-57.

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

(a) Not available for publication; figures are included in the total for Australia.

Australia.

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

Particulars of 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 XXIII.Pastoral Production.
31. Breweries.-(i) Details of Industry. The following table gives particulars of breweries in each State for the year 1956-57 and for Australia for a series of years. It should be noted, however, that the data shown are not strictly comparable throughout, owing to the inability or failure of some breweries to furnish a separate return for each branch of activity. Consequently the figures for some States include details of employment, wages, output, etc., not connected with the brewing of beer, although associated with it. These extraneous activities include cooperage, malt works, aerated waters, etc.

BREWERIES.
1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Number of factories |  |  |  |  |  |  |  |

[^5]
## BREWERIES-continued.

Australia.

| Items. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 34 | 32 | 31 | 30 | 28 | 27 |
| Number of persons employed | 3,698 | 5,904 | 6,193 | 6,791 | 6,835 | 6,107 |
| Salaries and wages paid ... £000 | 1,215 | 5,030 | 5,325 | 6,272 | 6,588 | 6,196 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 251 | 1,388 | 1,366 | 1,369 | 1,396 | 1,509 |
| Value of materials used . $\quad f^{\prime} 000$ | 3,407 | 16,452 | 19,975 | 20,810 | 22,437 | 21,238 |
| Value of production $\quad . \quad £^{\prime} 000$ | 5,372 | 11,458 | 13,048 | 14,855 | 15,224 | 16,266 |
| Total value of output(a) .. $\mathbf{f}^{\prime} 000$ | 9,030 | 29,298 | 34,389 | 37,034 | 39,057 | 39,013 |
| Value of land and buildings $£^{\prime} 000$ | 2,801 | 6,480 | 7,256 | 8,307 | 10,099 | 11,069 |
| Value of plant and machinery $£^{\prime} 000$ | 2,737 | 5,870 | 7,681 | 10,295 | 12.917 | 14.863 |
| Horse-power of engines ordinarily in use .. .. .. h.p. | 23,231 | 32,754 | 38,803 | 42,359 | 44,908 | 45,268 |

(a) Excludes Excise Duty.
(ii) Production, Consumption, Materials Used. The quantity of ale, beer and stout brewed fell from 73.7 million gallons in 1928-29 to 49.8 million gallons in 1931-32, but thereafter increased each year to 109.2 million gallons in 1941-42. Under the Control of Liquor Order which operated between March, 1942 and March, 1946, the production of beer was restricted and consequently annual output remained static at about 100 million gallons from 1942-43 to 1944-45. Thereafter production increased, and in 1957-58 amounted to over 233 million gallons.

The average annual consumption of ale, beer and stout prior to the economic depression of the early thirties exceeded 11 gallons per head of the population: it dropped to 7.3 gallons in 1931-32, increased to 13.8 gallons in 1941-42 and declined again to about 13 gallons during the period of control. The consumption per head had increased to 23.0 gallons by 1957-58.

The table below shows the quantities of materials used and the quantity and value of ale, beer (excluding waste beer) and stout brewed in each State during 1956-57:-

BREWERIES : MATERIALS USED AND PRODUCTION, 1956-57.

|  | Particulars. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Materials Used. |  |  |  |  |  |  |  |  |
| Malt | . .'000 bus. | 2,509 | 2,018 | 773 | (a) | (a) | (a) | 6,551 |
| Hops | $\cdots \quad .$. | 1,988 | 1,142 | 525 | (a) | (a) | (a) | 4,508 |
| Sugar | .. .. ton | 21,135 | 14,225 | 4,654 | (a) | (a) | (a) | 46,215 |

Ale, Beer and Stout Brewed (excluding Waste Beer).

| Quantity | $\ldots \prime 000$ gals. | 91,930 | 65,172 | 24,134 | (a) | (a) | (a) | 220,727 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Value (b) | $\ldots$ | f $^{\prime} 000$ | 14,700 | 11,177 | 4,607 | (a) | (a) | (a) | 38,454 |

(a) Not available for publication; figures are included in the total for Australia. (b) Excludes Excise Duty.
32. Wineries and Distilleries.-The following table shows particulars of the operations of Wineries and Distilleries for each State during 1956-57 and for Australia for a series of years.

## WINERIES AND DISTILLERIES.

1956-57.

| Items. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Number of factories |  |  |  |  |  |  |  |  |

## WINERIES AND DISTILLERIES-continued.

Australia.

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

33. Tobacco, Cigars and Cigarettes.-Particulars of establishments in which the manufacture of tobacco, cigars or cigarettes was carried on during 1956-57 are shown below for each State and for Australia for a series of years. There are no such factories in South Australia or Tasmania.

## TOBACCO, CIGARS AND CIGARETTES.

1956-57.

| Items. |  | N.S.W. | Vic. | Q'land. | W. Aust. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 12 | 10 | 5 | ${ }^{2}$ | 29 |
| Number of persons employed | 0 | 2,574 | 1,962 | (a) | (a) | 4,630 |
| Salaries and wages paid | £'000 | 2,278 | 1,706 | (a) | (a) | 4,038 |
| Value of power, fuel, etc., used | $\mathrm{f}^{\prime} 000$ | 76 | 47 | (a) | (a) | 127 |
| Value of materials used.. | $£^{\prime} 000$ | 20,411 | 13,001 | (a) | (a) | 33,535 |
| Value of production | £'000 | 6,026 | 4,923 | (a) | (a) | 10,999 |
| Total value of output(b).. | .. ${ }^{\prime}$ | 26,513 | 17,971 | (a) | (a) | 44,661 |
| Value of land and buildings | .. $\mathrm{f}^{\prime} 000$ | 641 | 904 | (a) | (a) | 1,764 |
| Value of plant and machinery | £'000 | 1,429 | 1,426 | (a) | (a) | 3,059 |
| Horse-power ofengines ordinaril | inuse h.p. | 7,556 | 3,003 | (a) | (a) | 10,990 |

Australia.

| Items. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 30 | 37 | 36 | 34 | 33 | 29 |
| Number of persons employed | 5,544 | 4,704 | 4,757 | 4,707 | 4,622 | 4,630 |
| Salaries and wages paid . . £ ${ }^{\prime} 000$ | 1,096 | 3,204 | 3,417 | 3,516 | 3,728 | 4,038 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 34 | 144 | 151 | 158 | 128 | 127 |
| Value of materials used .. $£^{\prime} 000$ | 7,081 | 22,416 | 26,835 | 28,825 | 31,227 | 33,535 |
| Value of production .. $£^{\prime} 000$ | 2,685 | 7,078 | 8,341 | 9,745 | 9,244 | 10,999 |
| Total value of output (b) . . $£^{\prime} 000$ | 9,800 | 29,638 | 35,327 | 38,728 | 40,599 | 44,661 |
| Value of land and buildings $£ 000$ | 1,042 | 1,741 | 1,822 | 1,504 | 1,867 | 1,764 |
| Value of plant and machinery fe'000 | 943 | 1,458 | 1,917 | 2,190 | 2,784 | 3,059 |
| Horse-power of engines ordinarily in use .. .. .. h.p. | 4,610 | 6,028 | 6,919 | 8,466 | 10,778 | 10,990 |
| Leaf used- |  |  |  |  |  |  |
| Australian (stemmed) .. '000 lb. | 4,489 | 4,222 | 4,866 | 4,482 | 5,204 | 5,299 |
| Imported (stemmed) $\quad . .000 \mathrm{lb}$. | 16,011 | 28,410 | 33,076 | 36,053 | 37,399 | 40,860 |
| Tobacco made .. .. '000 lb. | 16,305 | 22,334 | 23,400 | 21,466 | 18,836 | 18,917 |
| Cigars made .. .. '000 lb. | 238 | 129 | 143 | 151 | 132 | 114 |
| Cigarettes made .. .. '000 lb. | 6,731 | 13,879 | 18,303 | 22,859 | 27,162 | 30,513 |

(a) Not available for publication ; figures are included in the total for Australia.
(b) Excludes Excise Duty.

For many years the production of locally-grown leaf was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw materials. Increased import 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. During the 1939-45 War, about 4.7 million lb. of Australian-grown leaf was used annually, and the 1956-57 usage was 5.3 million lb. For further information see Chapter XXII.Agricultural Production.

Imports of tobacco during 1956-57 comprised-manufactured tobacco, 236,314 lb .; cigars, $49,91 \mathrm{llb}$.; cigarettes, $464,046 \mathrm{lb}$.; unmanufactured tobacco, $40,765,547 \mathrm{lb}$. and in 1957-58 were $402,388 \mathrm{lb} ., 86,165 \mathrm{lb} ., 370,842 \mathrm{lb}$. and $43,029,219 \mathrm{lb}$. respectively.
34. Sawmills, etc.-The most important industry in Class $X$. is sawmilling. Because of difficulties associated with the classifying of sawmills into forest and town mills, they have been combined in the following table, together with plywood and veneer mills.

SAWMILLS AND PLYWOOD AND VENEER MILLS.
1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 1,094 | 578 | 626 | 95 | 262 | 345 | 3,000 |
| Number of persons employed | 10,774 | 7,381 | 8,590 | 2,238 | 4,297 | 2,555 | 35,835 |
| Salaries and wages paid £'000 | 8,362 | 6,117 | 6,123 | 1,836 | 3,167 | 1,958 | 27,563 |
| Value of power, fuel, etc., used £'000 | 683 | 460 | 367 | 84 | 277 | 185 | 2,056 |
| Value of materials used . . £'000 | 24,031 | 14,132 | 12,327 | 6,584 | 5,449 | 4,294 | 66,817 |
| Value of production . . £ $\mathbf{£}^{\prime} 000$ | 15,118 | 10,228 | 10,188 | 3,342 | 5,716 | 3,336 | 47,928 |
| Total value of output $\quad \therefore \quad £{ }^{\prime} 000$ | 39,832 | 24,820 | 22,882 | 10,010 | 11,442 | 7,815 | 116,801 |
| Value of land and buildings $£^{\prime} 000$ | 4,431 | 2,843 | 1,744 | 1,355 | 970 | 736 | 12,079 |
| Value of plant and machinery $£^{\prime} 000$ | 4,867 | 3,520 | 3,276 | 1,390 | 2,044 | 1,989 | 17,086 |
| Horse-power of engines ordinarily <br> in use .. .. h.p. | 116,865 | 83,628 | 82,828 | 21,751 | 40,123 | 33,707 | 378,902 |

Australia.

| Items. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | 1955-56. | 1956-57. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 1,639 | 3,245 | 3,117 | 3,033 | 3,025 | 3,000 |
| Number of persons employed | 19,056 | 34,541 | 35,448 | 36,631 | 37,102 | 35,835 |
| Salaries and wages paid . $£^{\prime} 000$ | 3,626 | 21,367 | 23,536 | 25,530 | 27,086 | 27,563 |
| Value of power, fuel, etc., used $£$ '000 | 225 | 1,547 | 1,639 | 1,805 | 1,938 | 2,056 |
| Value of materials used . $£ 000$ | 8,441 | 46,585 | 53,908 | 61,073 | 65,618 | 66,817 |
| Value of production $\quad$. $£^{\prime} 000$ | 5,762 | 35,663 | 39,799 | 45,319 | 47,042 | 47,928 |
| Total value of output . . $\mathbf{E}^{\prime} 000$ | 14,428 | 83,795 | 95,346 | 108,197 | 114,598 | 116,801 |
| Value of land and buildings $£$ | 2,029 | 8,043 | 8,775 | 10.321 | 11,136 | 12,079 |
| Value of plant and machinery $£ \times 000$ | 2,777 | 11.906 | 12,504 | 14,896 | 16,201 | 17,086 |
| Horse-power of engines ordinarity in use .. .. .. h.p. | 89,843 | 332,736 | 336,951 | 359,786 | 371,003 | 378,902 |

The sawmill output of native timber, which declined from 740 million super. feet in 1925-26 to the abnormally low figure of 237 million super. feet during the depth of the depression, recovered to 717 million super. feet in 1938-39 and by 1957-58 had risen to 1,400 million super. feet. Further reference is made to the sawmilling industry in Chapter XXV.-Forestry.
35. Cabinet and Furniture Making and Upholstery.-These industries constitute the principal manufactures in Class XI. The following table shows particulars for each Statein 1956-57:-

CABINET AND FURNITURE MAKING AND UPHOLSTERY, 1956-57.

| Items |  | N.S.W. | Vic. | Q'land. | S Aust | W. Aust. | Tas. | Aust. |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Number of factories |  |  |  |  |  |  |  |  |

36. Printing Works.-Printing and bookbinding rank high in importance among the industries of Australia, and in 1956-57 afforded employment for 39,911 employees, and paid $£ 34,766,000$ in salaries and wages, while the value of output amounted to $£ 112,629,000$. The first table below gives particulars of establishments engaged in general printing in each

State for 1956-57. These establishments include those engaged in lithographic printing, bookbinding, paper ruling and linotyping and Government printing works. Establishments producing newspapers and pẹriodicals are shown separately in the second table following:-

GOVERNMENT AND GENERAL PRINTING WORKS, 1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 564 | 540 | 111 | 85 | 76 | 23 | 1,399 |
| Number of persons employed | 10,203 | 9.110 | 2,323 | 1,649 | 1,402 | 584 | 25,271 |
| Salaries and wages paid £'000 | 8,762 | 7,620 | 1,605 | 1,233 | 953 | 459 | 20,632 |
| Value of power, fuel, etc., used £'000 | 286 | 222 | 42 | 31 | 30 | 10 | 621 |
| Value of materials used .. $£^{\prime} 000$ | 12,814 | 9,763 | 1,705 | 1,343 | 1,142 | 435 | 27,202 |
| Value of production .. $£^{\prime} 000$ | 14,864 | 13,111 | 2,697 | 1,899 | 1,868 | 697 | 35,136 |
| Total value of output .. $£^{\prime} 000$ | 27,964 | 23,096 | 4,444 | 3,273 | 3,040 | 1,142 | 62,959 |
| Value of land and buildings $£^{\prime} 000$ | 5,425 | 5,332 | 905 | 726 | 640 | 282 | 13,350 |
| Value of plant and machinery $£^{\prime} 000$ | 5,733 | 5,920 | 951 | 962 | 741 | 279 | 14,586 |
| Horse-power of engines ordinarily in use .. .. h.p. | 15,671 | 13,717 | 2,429 | 2,098 | 2,019 | 850 | 36,784 |

NEWSPAPERS AND PERIODICALS, 1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 178 | 111 | 59 | 36 | 23 | 5 | 412 |
| Number of persons employed | 6,777, | 3,348 | 2,195 | 1,195 | 740 | 385 | 14,640 |
| Salaries and wages paid $£^{\prime} 000$ | 6,700 | 3,299 | 1,879 | 1,117 | 738 | 401 | 13,134 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 280 | 119 |  | 35 | 38 | 8 | 551 |
| Value of materials used .. ${ }^{\prime} 000$ | 10,276 | 7,563 | 2,726 | 1,551 | 1,261 | 332 | 24,009 |
| Value of production .. $£^{\prime} 000$ | 11,723 | 5,727 | 3,470 | 2,086. | 1,553 | 551 | 25,110 |
| Total value of output $\because{ }^{\text {a }}$, ${ }^{\prime} 000$ | 22,279 | 13,409 | 6,267 | 3,972 | 2,852 | 891 | 49.670 |
| Value of land and buildings $\mathbf{£}^{\prime} 000$ | 6,288 | 1,616 | 1,298 | 830 | 509 | 222 | 10,763 |
| Value of plant and machinery $\mathrm{E}^{\prime} 000$ | 5,612 | 2,795 | 1,416 | 667 | 706 | 119 | 11,315 |
| Horse-power of engines ordinarily in use .. .. h.p. | 14,252 | 10,479 | 5,482 | 3,539 | 2,536 | 692 | 36,980 |

37. Paper Making.-Although the paper manufacturing industry has been established in Australia for many years, it was not until the manufacture of paper pulp from indigenous timber commenced in 1938-39 that any marked development occurred.

Plants producing pulp from eucalypt timber are operating in Victoria and Tasmania, whilst in South Australia pulp is being produced from locally-grown softwoods. The production of pulp rose from 6,000 tons in 1938-39 to 88,000 tons in 1946-47. It remained at about this level until 1949-50 but has since increased steadily to a total of nearly 195,000 tons in 1956-57.

The number of factories operating in 1956-57 comprised four in New South Wales, seven in Victoria, one each in Queensland, South Australia, and Western Australia and three in Tasmania. In Tasmania, newsprint. writing and printing papers are produced, and in the other States wrappings, other papers and boards. Particulars for this industry are shown in the following table.

PAPER MAKING, INCLUDING PULP MILLS : AUSTRALIA.

| Items. | 1938-39. | 1952-53. | 1953-54. | 1954-55. | $\underset{(a)}{1955-56 .}$ | 1956-57. <br> (a) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 7 | 17 | 18 | 20 | 17 | 17 |
| Number of persons employed | 1,961 | 6,441 | 7,179 | 7,611 | 7.480 | 7,903 |
| Salaries and wages paid .. £'000 | 467 | 5,338 | 6.130 | 7,095 | 7,813 | 8,783 |
| Value of power, fuel, etc., used $£^{\prime} 000$ | 201 | 1,649 | 2,048 | 2,560 | 2,735 | 2,996 |
| Value of materials used .. $£^{\prime} 000$ | 1,096 | 12,637 | 15,198 | 17,474 | 18,963 | 22419 |
| Value of production | 1,005 | 11,085 | 15,451 | 18,294 | 17,330 | 19,383 |
| Total value of output .. $£^{\prime} 000$ | 2,302 | 25,371 | 32,697 | 38,328 | 39,028 | 44,798 |
| Value of land and buildings $\mathfrak{E}^{\prime} 000$ | 850 | 7,324 | 8,106 | 8,255 | 9.312 | 9,527 |
| Value of plant and machinery $£^{\prime} 000$ | 1,713 | 15,263 | 16,810 | 18,050 | 18,640 | 18,141 |
| Horse-power of engines ordinarily in use <br> h.p. | 31,548 | 127,558 | 141,373 | 157,948 | 164,123 | 170,382 |

(a) Excludes several establishments previously included, engaged in processing but not manufacturing paper.
38. Rubber Goods.-The following table shows particulars of this industry for each State during 1956-57 but excludes establishments engaged primarily in the retreading and repairing of tyres.

## RUBBER GOODS, 1956-57.

| Items. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories | 43 | $54^{-}$ | 12 | 8 | 2 | 1 | 120 |
| Number of persons employed | 6,769 | 6,182 | 1,152 | 718 | (a) | (a) | 14,859 |
| Salaries and wages paid f'000 | 6,695 | 5,982 | 909 | 688 | (a) | (a) | 14,296 |
| Value of power, fuel, etc., used V | 920 | 901 | 109 | 74 | (a) | (a) | 2,007 |
| Value of materials used $\quad £^{\prime} 000$ | 16,628 | 14,088 | 2,765 | 859 | (a) | (a) | 34,378 |
| Value of production . . £'000 | 8,844 | 11,327 | 1,974 | 1,065 | (a) | (a) | 23,246 |
| Total value of output . . $£$ | 26,392 | 26,316 | 4,848 | 1,997 | (a) | (a) | 59,631 |
| Value of land and buildings $£^{\prime} 000$ | 2,373 | 3,211 | 459 | 179 | (a) | (a) | 6,292 |
| Value of plant and machinery <br> .. .. £'000 | 2,398 | 3,757 | 292 | 182 | (a) | (a) | 6,645 |
| Horse-power of engines ordinarily in use | 50,536 | 53,254 | 7,608 | 2,994 | (a) | (a) | 114,562 |

(a) Not available for publication ; figures are included in the total for Australia.
39. Electric Light and Power Works.-(i) Details of Industry. The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. For further information on this subject see Chapter VII.-Electric Power Generation and Distribution. Particulars of the industry for each State during the year 1956-57 and for Australia for a series of years are shown below :-

## ELECTRIC LIGHT AND POWER WORKS.

1956-57.

| Items. |  | N.S.W. | Vi |  | Q'land |  | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of factories |  | 82 |  | 53 |  | 6 | 41 | 87 | 9 | 328 |
| Number of persons employed |  | 5,490 |  | 186 | 1,54 |  | (a) | 971 | (a) | 12,473 |
| Salaries and wages paid.. £'000 |  | 6,108 |  | 534 | 1,49 |  | (a) | 1,052 | (a) | 13,571 |
| Value of power, fuel, etc.,used |  | 16,208 |  | 512 | 5,87 |  | (a) | 3,438 | (a) | 39,830 |
| Value of materials used... | 000 | 2,070 |  | 605 | -99 |  | (a) | , 292 | (a) | 4,396 |
| Value of production $\quad .$. | 000 | 23,570 | 13,8 | 825 | 4,12 |  | (a) | 2,916 | (a) | 50,722 |
| Total value of output . . ${ }^{\text {d }}$ | 000 | 41,848 |  | 942 | 10,99 |  | (a) | 6,646 | (a) | 94,948 |
|  | Value of land and buildings $£^{\prime} 000$ | 34,903 | 15, | 115 | 8,42 |  | (a) | 2,663 | (a) | 102,318 |
| Value of plant and machinery |  | 68,397 | 57,0 |  | 25,16 |  | (a) | 14,822 | (a) | 198,269 |
| Generators <br> capacity installed - Kilowat <br>   |  | 1,866 |  | 63 | 53 |  | (a) | 295 | (a) | 4,705 |
| Australia. |  |  |  |  |  |  |  |  |  |  |
| Jtems. |  | 1938-39. |  | 1952-53. |  | 1953-54. |  | 1954-55. | 1955-56. | 1956-57. |
| Number of factories |  |  | 395 |  | 349 |  | 351 | 351 | 332 | 328 |
|  |  |  | 508 |  | , 891 |  | 11,395 | 11,927 | 12,111 | 12,473 |
| Salaries and wages paid $\quad \ldots, 0000$ |  |  | 977 |  | , 675 |  | 10,308 | 11,457 | 12,497 | 13,571 |
| Value of power, fuel, etc., used $£$ |  |  | 239 |  | ,205 |  | 35,083 | 36,548 | 37,479 | 39,830 |
| Value of materials used ... £'000 |  |  | 530 |  | 3,296 |  | 4,800 | 4,170 | 4,090 | 4396 |
| Value of production | £ 000 |  | 714 |  | ,582 |  | 30,098 | 37,568 | 43,219 | 50.722 |
| Total value of output ${ }^{\text {Value of land and buildings }}$. | $\mathrm{f}^{\prime} 000$ |  | 483 |  | ,083 |  | 69,981 | 78,286 | 84,788 | 94,948 |
|  | £'000 |  | 388 |  | ,531 |  | 47,369 | 60,120 | 73,688 | 102,318 |
| Value of land and buildings <br> Value of plant and machinery | £'000 |  | 751 |  | , 169 |  | 22,773 | 146,273 | 158,377 | 198,269 |

(a) Not available for publication ; figures are included in the total for Australia.

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on page 159.
(ii) Production. The increase in the production of electric light and power in each of the States since 1938-39 is shown in the following table :-

## ELECTRIC LIGHT AND POWER WORKS : ELECTRICITY PRODUCED.

(Million kWh.)

| Year. |  | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1938-39 | $\cdots$ | 1,948 | 1,223 | 387 | 256 | 307 | 567 | 4,688 |
| 1951-52 | $\cdots$ | 4,628 | 2,964 | 1,242 | 788 | 530 | 1,145 | 11,297 |
| 1952-53 | - | 4868 | 3,193 | 1,349 | 822 | 569 | 1,244 | 12,045 |
| 1953-54 | . | 5.450 | 3693 | 1,511 | 955 | 627 | 1,471 | 13,707 |
| 1954-55 | . | 5,951 | 4,152 | 1,658 | 1,119 | 703 | 1,589 | 15,172 |
| 1955-56 | $\ldots$ | 6.505 | 4,633 | 1.786 | 1,204 | 753 | 1,794 | 16.675 |
| 1956-57 | $\ldots$ | 7,008 | 5,037 | 1,937 | 1,315 | 782 | 2,210 | 18,289 |
| 1957-58(a) | $\ldots$ | 7.565 | 5.250 | 2.221 | 1,593 | 828 | 2,336 | 19,793 |

(a) Preliminary-subject to revision.
40. Gas-works.--(i) Details of Industry. Gas-works are in operation in the majority of important towns in Australia. The following table shows particulars of gas-works in each State for the year 1956-57 and for Australia for a series of years :-

GAS-WORKS.
1956-57.

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

Australia.

| Items. |  | $1938-39$. | $1952-53$. | $1953-54$. | $1954-55$. | $1955-56$ | $1956-57$. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |

(a) Not available for publication; figures are included in the total for Australia.
(ii) Coal Used and Production. The following table shows details for 1956-57 :-

GAS-WORKS : COAL USED AND PRODUCTION, 1956-57.

| Particuiars. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coal used -'000 tons | 912 | 603 | 203 | (a) | 42 | (a) | 1,946 |
| Gas produced million cu. ft. | 22,583 | 15,746 | 3,115 | (a) | 1,451 | (a) | 46,653 |
| Gas sold ", ${ }^{\text {, }}$, | 19,917 | 13,495 | 2,707 | (a) | 1,246 | (a) | 40,662 |
| Coke produced (b) '000 tons | 456 | 207) | 94 | (a) | 25 | (a) | 893 |

(a) Not available for publication ; figures are included in the total for Australia. (b) In addition 2,234,458 tons of metallurgical coke were made in Coke Works in 1956-57.

Since 1938-39, when the output of gas was 21 thousand million cubic feet, production has increased each year and reached nearly 48 thousand million cubic fect in 1957-58.


[^0]:    (a) Includes Gas Works but excludes Central Electric Stations.
    (b) Excludes particulars in column (c).

[^1]:    (a) Includes value of Iubricants and water.
    (b) Includes $£ 1,044,000$, the value of 462,000 tons of Leigin Creek coal.

[^2]:    (a) Includes the value of containers, packing, etc., also the cost of tools replaced and repairs to plant. (b) Includes lubricants and water.
    (c) See paragraph preceding this table.

[^3]:    (a) Includes kitbags.
    (c) Includes mixtures.
    (b) Excludes tooth and industrial metal and bristle brushes.

[^4]:    (a) Includes malted milk and infants' and invalids' foods.
    (b) Includes canned apple, all types. (c) Includes industrial flakes and chips. (d) Includes stovettes, cookers, etc.

[^5]:    (a) Not available for publication; figures are included in the total for Australia.
    (b) Excludes

    Excise Duty.

