

## CHAPTER II

## THE STAPLE INDUSTRIES

Textile Industries—Our Supplies of Raw Cotton—British Iron and Steel Trade—The Lack of Organisation—Shipbuilding Industry—Gross Output and Net Output of Miscellaneous British Industries—The Agricultural Industry.

BEFORE proceeding to discuss the prospects and general conditions of British commerce, I propose to survey briefly the staple industries of the country.

The prime or staple industries of the country to-day continue to be those which were originally built up as a result of the physical and mineral advantages above described—our textile industries, engineering and shipbuilding industries, etc.,—and the business of banking and financing which arose out of our control of the carrying trade. I exclude agriculture, as it would be impossible to discuss adequately in this volume the causes of its decline under the pressure of industrial expansion. Moreover, it involves the consideration of political and economic questions which do not relate to the strictly commercial aspects of our subject. What were the prime

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industries of this country in the early eighteenth century are still the prime industries of to-day, though they have been subjected to the process of specialisation, and have also undergone internal changes resulting from the use successively of steam, gas, and electric power. Industrial developments, in fact, have not led to any such alteration of our prime industries as in many European cities, where the staple industries have disappeared and been replaced by others. Any extinction that may have occurred in old industries or any creation of new industries has taken place among the secondary occupations of the country. Some industries are now moribund because the demand for their produce has ceased, or the use of machinery has created a more economical method of production, or foreign competition has made production of the goods unprofitable. There is considerable difference of opinion between political partisans as to the real causes of the lessening output of various industries, but until the decision of Parliament in 1906 to take a Census of Production, making 1907 the censal year, there was little prospect of our ever being able to settle these facts definitely owing to the absence of reliable figures. The report issued by Mr Flux in 1912 is likely to

be of considerable value in determining the progress made in the productive powers of the country when the results of future censal years (which are to be quinquennial) are available. The experience of traders of late years with regard to the constant demands of the Government for domestic details about their trades has not been a happy one. During the past ten years there have been so many direct or indirect requests from officials for such information that traders have come to regard any communication marked 'On His Majesty's Service' with grave suspicion. The Factory Act, Shops Act, Workmen's Compensation Act, Employers' Liability Act, Insurance (Invalidity and Unemployment) Act, are rightly or wrongly regarded by the trader and manufacturer as only the precursors of even greater taxation and interference with their business in the future, ultimately leading to a Minimum Wage Act. The feeling of antagonism engendered between the Legislature and the manufacturing and trading community may be attributed either to the introduction of ill-advised legislation based largely on theoretical calculations, or to an erroneous belief on the part of the employer that the State tends to support labour unfairly

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against capital. It is no part of the writer's purpose to enter upon political matters except in so far as they affect commerce, and this point is only mentioned here because there certainly exists among a very large section of big employers of labour, irrespective of any particular trade or political party, a pronounced distrust of the State.

Let us now enter upon our brief survey of the classes of enterprise commanding a leading position in our country's trade. Head and shoulders above all other industries in the United Kingdom stands the textile industry. Its various branches are as follows :—

(1) The cotton industry, located almost entirely in Lancashire; (2) the woollen and worsted industry, the seat of which is in the West Riding of Yorkshire, where 72 per cent. of the total operatives are employed; (3) the linen industry, mainly centred in the North of Ireland and in Fifeshire and Forfarshire in Scotland, the number engaged in it in England being comparatively small; (4) the jute industry, almost the only seat of its manufacture in Great Britain being Dundee; (5) the silk industry; (6) the hosiery industry; (7) lace-making; and various minor textile industries, such as the manufacture of carpets, hemp, etc.

The most important of these various branches of the textile industry is the cotton trade, which gives employment to nearly 45 per cent. of the total number of operatives employed in the textile industries of the country and to twice as many as the woollen and worsted industry, the next largest occupation in the textile group. With the fortunes of the cotton trade the prosperity of Lancashire rises and falls, over 80 per cent. of the total employment in the trade being centred in that county. For many generations the United Kingdom has been supreme in the cotton industry, but the growing trade of other countries, although not impeding the progress of the British output, is absorbing every year larger quantities, and has created difficulties of a very grave character in connection with our supply of the raw material. An attempt was recently made by an American paper to estimate the number of the world's cotton spindles, and the figures are interesting, as they give a rough idea of the growth of the industry in other countries in comparison with the United Kingdom.<sup>1</sup>

<sup>1</sup>A comprehensive table compiled by Mr Arno Schmidt, Secretary of the International Federation of Master Cotton Spinners' and Manufacturers' Associations, is included in the Appendix.

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	MILLIONS OF SPINDLES				
	1870	1880	1890	1900	1912
United Kingdom .	37½	44½	44½	46	57
European Continent	13	21	26	32	42
United States .	7	10½	14	19	30
Other Countries .	—	2	4	7	11
Approximate Total	57½	78	88½	104	140

The ratio of increase has, of course, been much greater in the United States and on the Continent than in Great Britain. The increase on the Continent may be clearly traced to Germany, which has doubled the value of its exports of cotton yarn and piece goods during the past ten years. At the same time the United Kingdom has also doubled its output of yarn, which is about five times that of Germany, and has also maintained the growth in its exports of cotton piece goods.

The difficulties which our manufacturers have to combat arise in connection with the supply of raw material. Hitherto, we have depended almost entirely upon the United States as the chief source of the world's supply. The total annual crop varies from fourteen to eighteen million bales, of which the United States supplies about 80 per cent., India and Egypt being responsible for the greater part of the balance. The British Cotton Growing Association has been doing excellent work

during the past few years in extending the world's cotton fields. The Association was founded in 1902 under Royal charter with the object of extending the growth and cultivation of cotton in the British Colonies, dependencies, and protectorates, and receives a subsidy from the Imperial Government. The visit of cotton manufacturers to Egypt in 1913 has led to favourable developments, and the possibility of the United Kingdom drawing its supplies of cotton very largely from Egypt is now within the region of practical politics. It is estimated that 500,000 additional bales are required annually in order to keep pace with the world's consumption, which is rapidly increasing. In the United Kingdom consumption has increased from 3,706,000 to 4,150,000 bales per annum during the past twenty years, while in the same period the annual consumption has increased on the Continent from 4,576,000 to 5,700,000 bales, and in the United States from 3,200,000 to 5,200,000 bales.\* The problem which is troubling the British manufacturers is, therefore, not so much the difficulty of obtaining the world's orders for cotton goods as of securing a steady and plentiful supply of raw material in the future.

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The pronounced prosperity of India during the past few years has, of course, been especially reflected in the course of the cotton trade. India is the greatest customer Lancashire cotton manufacturers possess, and the feature of 1912 was the large buying for Calcutta, Bombay, and other cities in India. The troubles in the Near East and the domestic situation in China have acted adversely, but the far-sighted manufacturer looks to a big demand so soon as the countries concerned in the Balkan War have become re-settled. How the trade with India has been increased and that with the Near East decreased may be seen from the following figures :—

INCREASES			
Bengal	..	..	253,000,000 yards
Bombay	..	..	88,000,000 „
DECREASES			
China	..	..	119,000,000 yards
Turkey	..	..	73,000,000 „

In spite of the big shipments which have taken place, there are no signs of foreign markets being glutted with our supplies. Labour difficulties have been easily dealt with recently, and, apart from the bad spinning question, it is not anticipated that any serious troubles will arise in the near future. The magnitude of the possibilities of the cotton



industry is indicated by a few simple figures. The cotton industry supplies nine-tenths of the clothing of the world's inhabitants, and it is estimated that out of a population of 1,500,000,000 only 500,000,000 are completely clothed, 750,000,000 are only partially clothed, and 250,000,000 are not clothed at all. Such figures show the vastness of the cotton industry and the possibilities of its development.

Just as the United Kingdom depends almost wholly upon the United States for its cotton, so do we rely to a substantial extent upon Australasia for our wool, with the result that a prolonged drought in the Colonies might seriously interfere with at least 50 per cent. of our supplies. Very serious inroads have been made in the trade in yarn by both German and French competition, and the premier position of exporter of woollen and worsted yarn may in any year be wrested from us by Germany. The volume of this trade is not, of course, to be compared with that of the manufactured article, in the export of which the United Kingdom has outstripped all other countries for many years, no matter in what way the returns may be judged. Any advance which Germany may have made has been almost

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entirely in cheap goods of an attractive rather than a serviceable character, in which market the British manufacturer has not attempted to compete. The lowering of the tariff in the United States may help very largely to promote a revival of our trade with America in woollen manufactured goods which was killed by the Dingley Tariff in 1897; and there is no reason to anticipate any reduction in the volume of our trade in this branch of the textile industry, especially if some of the points relating to our trade abroad, dealt with in other parts of this book, are tackled seriously by manufacturers in conjunction with commercial representatives of the Government.

The British iron and steel trade has probably suffered more from lack of organisation than any other industry in the United Kingdom. On the other hand competing countries have displayed an increasing enthusiasm for organising their steel trade on co-operative and remunerative lines. As a result we have lost the long lead which we at one time held in the production of pig-iron as well as in the value of our iron and steel exports, although from every point of view we may be said to enjoy a more favourable physical position than other countries. The world's production of pig-iron

in 1910-12 was 68,000,000 tons, of which the United States was responsible for 27,000,000, Germany for 16,000,000 and Great Britain for 9,000,000. Thirty years ago the total production was 20,000,000 tons, of which Great Britain contributed 8,000,000, the United States 4,000,000, and Germany 3,000,000. In iron and steel the world's export trade is over 16,000,000 tons per annum, that is, double the quantity of ten years ago. Twenty years ago Great Britain was an easy leader with an export of three-and-a-quarter million tons, whilst Germany and the United States did not reach a million tons each. In 1912 Germany led with over five-and-a-half million tons, and Great Britain was a bad second, being nearly a million tons behind. These are the facts of the British iron and steel trade expressed in figures. It will be more profitable to accept them as they stand rather than attempt to explain them away by arguments concerning bounties and tariffs, however much we may sympathise with the British steel manufacturer in the tariff difficulties with which he has to contend. Physically, Great Britain has an advantage over every other country in the manufacture of steel. It has coalfields, abundant supplies

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of iron ore, limestone, blast furnaces, and steel mills in close proximity to each other. It has innumerable ports and countless ships for transport. The scares some 'experts' have raised by bewailing the limitations of our coal and iron supplies may be dismissed as without foundation. New seams of coal are being discovered every year to take the place of old ones, and virgin deposits of iron ore are being opened up as rapidly as old reserves are being depleted. In the matter of coal and iron ore deposits we are, in fact, better off than we were five-and-twenty years ago. Physically, therefore, the United Kingdom suffers no drawbacks in comparison with other countries. Financially, the industry has little to complain about. There is abundant capital for genuine enterprises in this country even after vast sums have been sent abroad; there is so much labour that we can afford to let thousands of skilled workers emigrate each year; and we have at the time of writing a 'boom' in the ship-building trade such as we have not seen for many years. Yet the volume of our steel trade languishes whilst that of Germany forges ahead. We should produce 15,000,000 tons of iron a year instead of 10,000,000, and at least 12,000,000 tons of steel instead of

7,000,000. We should produce all that we require for ourselves instead of having to buy 2,000,000 tons, and in view of our trade connections all over the world, we ought easily to do the largest export trade in steel and iron goods of any nation in the world. The explanation lies in the lack of organisation from which the British steel maker suffers.

Mr T. Good, a recognised authority on the subject, writing on the organisation of German steel manufacturers, says: 'Bankers, producers, and shippers have co-operated for the advancement of German trade in a way that ought to put Britishers to shame. The syndicates in the iron and steel group of industries have worked wonders. The producers of each product, from coal and ore to nails and sewing machines, have combined in a network of syndicates. The plan has differed altogether from the Trust system of America. A firm producing half a dozen different productions has been a member of as many syndicates, and not a unit of a single corporation. The general plan has been for the officials of the syndicates to control business, while the manufacturers have attended to the efficiency of their plants. Each works has been visited, its location noted, its capacity

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of production and any special aptitude for particular classes of work duly recorded. Prices have been fixed, orders taken and allotted, and shipping arrangements made by the syndicates. Trade opportunities have been watched in every part of the world by the experts of the syndicates, and many matters attended to in the interests of the constituents better than the individual manufacturers could do for themselves. Raw materials have also been purchased on the co-operative plan. Not only have shipping costs been kept down by exporting in bulk co-operatively, but transit distances have been reduced to the shortest possible. For example, an Austrian order would, other things being equal, be given to a Silesian firm, while a British or French one would go to a Westphalian shop.'

Mr Good does not deny that the use of the bounty system has been of great value in assisting German manufacturers to get into markets formerly regarded as British preserves; but bounties alone have not enabled Germany to increase its export of steel by ten times that of fifteen years ago. The enormous growth is a tribute to organisation. That this is so is recognised by the British steel manufacturers, who are engaged in the formation of the

British Engineers' Association, a venture that promises to give other British trades an example of the benefits which follow organisation and co-operation. Firms with an aggregate capital of £50,000,000 have given their adhesion to the Association, whose object will be to promote British engineering products on co-operative lines. Sales agencies are to be established abroad, all possible information gathered, and experts engaged for mutual services on lines beyond the reach of individual firms. Trade commissioners are being sent out to China to pay special attention to the future needs of that market. There are other smaller associations both in the heavy and lighter branches of the trade, while there are still many manufacturers who hold aloof from any national co-operative effort to maintain and strengthen the position which the country is in danger of losing. Meanwhile, solely by organisation, other countries are overhauling our trade. The pity of it!

Not for many years has Great Britain witnessed so much activity in its shipping trade and its shipbuilding yards as at the time of writing. There are no less than fourteen Dreadnoughts and nearly one hundred warships under construction for the British

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or foreign Governments, and the yards are so well provided with miscellaneous work that shipbuilding firms are unable to cope with the demands made upon them. The shipping under construction in the United Kingdom in the Spring of 1913 exceeded two million tons, which constitutes a record in the history of the industry. Ever since the severe crisis of 1907 the carrying trade of the world has made remarkable progress. The oversupply of steamers at British ports has long since disappeared. Every vessel that could legitimately put to sea with a cargo has done so, but the demand on the British shipbuilder shows no sign of abatement. Whatever may be the condition of other industries in the United Kingdom, we can at least be satisfied that we are receiving the lion's share of the world's orders for shipbuilding, the total tonnage launched in the United Kingdom each year being about two millions in comparison with one-and-a-quarter millions built abroad. A larger proportion of sailing ships of low tonnage are built abroad than in this country. The most important feature in the development of the shipbuilding industry in recent years has been the increased size and speed of the ships built. Merchant ships have steadily



increased in size, the present limitations of docks and harbours being the sole restriction upon their further growth.

There is also to be noted a disposition to construct steamers for special purposes and special trades. Luxuriously-fitted mammoth vessels for the passenger trade across the Atlantic are specially built for this journey, and it is doubtful whether they could find employment, in view of their size and speed, in other directions. Vessels are built and specially equipped for the frozen meat trade with the River Plate, for the fruit trade with Australia, for carrying grain from the Baltic, etc. A very large amount of tonnage in the form of oil-tank and oil-carrying steamers has also been built. This tendency will probably increase until it becomes a recognised policy to construct vessels for special trades. It may therefore be anticipated that, in addition to the natural demand for new tonnage as a result of the general expansion of the world's trade, there will also be an increase in the building of special trade steamers. Present supplies are below the demand, because building has been interfered with by the shipyard strike of 1910-11 and the coal strike of 1912, in addition to the inability of steelmakers to deliver

building material quickly enough. Not only has the actual speed of the vessels been accelerated, but at the present time the vessels are handled, unloaded, and loaded in port far more rapidly than formerly. Science is making herself felt in the shipbuilding industry as much as in any other branch of trade. The late Lord Furness, speaking at a meeting of one of his companies, pointed out that the compound engines which in his younger days held the field gave place twenty-five years ago to those of triple expansion type; more recently the turbine engine came suddenly into use, and today we are face to face with its displacement, imminent upon the introduction of the Diesel oil engine — a development that, if the inventor's claims are made good, will 'revolutionise methods of propulsion in shipping.' Then as to fuel: coal, which for so long has been our useful ally, may thus have to share its pre-eminence as a power-producing force with another mineral. 'The distribution of oil,' said Lord Furness, 'is at least as wide as that of coal, its manipulation is easier, and I do not know that its dangers are in any degree greater. What may be the ultimate effect upon coal production is not easy of imagination, but we may possibly have to calculate with another

element of trade disturbance, and one that may be as great in its effect as most that have preceded it. The rapidity of the changes we are called upon to deal with is the feature which makes the great call upon the commercial man of to-day, and is the test of his mental ability and equipment.' Not in the methods of propulsion alone are vast changes likely to occur in the shipping industry, but also in methods of organisation. The laws and regulations relating to shipping must sooner or later be made uniform throughout the British Empire, and foreign ships must be subjected to all the requirements with which British ships are at present bound to comply. This raises questions of economics. Labour conditions, such as wages, overtime, and the duties of the various ratings, differ in almost every country, and to enforce a hard and fast standard upon the vessels of all countries might tend to produce conditions and restrictions making matters worse than they are at present.° As in other industries, the expenses of labour are always tending upwards, and a higher level of freights must be anticipated by traders. This will bring shipowners into conflict with foreign countries, and probably lead to competitive rates. It may therefore

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be anticipated that in the future the profits from shipping will not be in the same proportion to earnings as heretofore. British shipowners may, however, do much to nullify foreign competition by careful organisation. Combines of shipowners to regulate freights or to maintain minimum rates in certain markets may come and go, but an effective resistance will not be established until shipowners cooperate in a national movement to keep the supply of competing vessels from over-running the demand at periods of depression, and to ensure the demolition of obsolete vessels rather than their sale to foreigners to compete with British vessels on a low capital basis and low working expenses.

In the preceding chapter I have referred in general terms to the present condition of the great industries of the country—iron, coal and steel, engineering, shipbuilding, and the textile trades—whose gross output forms about seven-sixteenths or nearly one-half of the total production of the country. The food, drink, and tobacco trades, and the clay, stone, and building trades are the chief of the minor industries of the country. In the Census of Production Report presented by Mr Flux, particulars were given respecting the chief

TABLE

GROSS AND NET OUTPUT OF GROUPS OF TRADES  
FROM THE CENSUS OF

GROUP OF TRADES.	Gross Output.	Materials Used.
	Selling Value or Value of Work Done.	Cost.
	(1)	(2)
	£	£
Mines and Quarries .. ..	148,026,000	28,495,000
Iron and Steel, Engineering and Shipbuilding Trades	375,196,000	212,224,000
Metal Trades, other than Iron and Steel .. ..	93,465,000	81,341,000
Textile Trades .. .. .	333,561,000	235,038,000
Clothing Trades .. .. .	107,983,000	58,185,000
Food, Drink, and Tobacco Trades .. .. .	287,446,000	197,734,000
Chemical and Allied Trades	75,032,000	53,466,000
Paper, Printing, Stationery, & Allied Trades .. ..	61,308,000	26,611,000
Leather, Canvas, and India- rubber Trades .. .. .	34,928,000	26,229,000
Timber Trades .. .. .	46,390,000	24,780,000
Clay, Stone, Building, and Contracting Trades ..	116,692,000	49,679,000
Miscellaneous Trades .. ..	8,288,000	3,773,000
Public Utility Services ..	77,051,000	30,786,000
Factory Owners—Power only .. .. .	—	—
<b>TOTAL .. .. .</b>	<b>£1,765,366,000</b>	<b>£1,028,346,000</b>

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A

IN UNITED KINGDOM IN THE CENSAL YEAR, 1907.  
PRODUCTION REPORT, 1913.

Work Given out. — Amount Paid to other Firms. (3)	Net Output. — Excess of Column (1) over Columns (2) and (3). (4)	Average Number of Persons Employed (excluding Outworkers). (5)	Horse-Power of Engines at Mines, Factories, etc. (6)
£ —	£ . 119,531,000	965,230	H.P. 2,495,134
9,890,000	153,082,000	1,539,415	2,437,481
231,000	11,893,000	114,473	83,974
4,189,000	94,334,000*	1,253,044	1,987,765
2,125,000	47,673,000	750,466	84,806
198,000	89,514,000	463,701	380,171
9,000	21,557,000	127,842	214,770
1,047,000	33,650,000	325,475	237,573
81,000	8,618,000	84,724	54,891
166,000	21,444,000	239,195	173,813
6,557,000	60,456,000	725,240	433,279
67,000	4,443,000	46,874	9,417
325,000	45,940,000	342,491	2,059,737
—	—	806	102,198
£24,885,000	£712,135,000	6,984,976	• 10,755,009

#### 44. BRITISH COMMERCE

industries, the information being classified under groups of allied trades. As this statement (Table A, pp. 42-43) provides in a comprehensive manner a bird's-eye view of the relative statistical position of the various industries, I reproduce it here for reference, although the student who desires to acquaint himself with the details would do well to investigate the voluminous report, which was published early in the present year. It should be noted that agriculture does not appear in this table. The factories and workshops of the United Kingdom which the returns cover, employing nearly 11,000,000 horse-power and nearly 7,000,000 workers, produced in 1907 a net output of £712,135,000. This figure is arrived at by deducting from the gross output the cost of materials used and the amount paid for work given out to other firms. An even more interesting table of statistics (Table B, p. 45) is that provided by *The Economist* in its issue of March 22, 1913.

*The Economist* arranges the various industries in their sub-divisions according to the size of their net output. This enables the magnitude of each industry of the country to be seen in comparison with others. The big difference between gross and net output will

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TABLE B

INDUSTRY	Net Output	Gross Output	No. Em- ployed	Net Out- put per Head
	Mill. £	Mill. £		£
Coal mining .. .. .	106.09	122.64	838,586	127
Engineering .. .. .	52.02	106.39	477,259	109
Cotton .. .. .	45.00	174.60	572,062	79
Buildings .. .. .	42.93	87.97	513,993	84
Brewing <sup>1</sup> .. .. .	41.22	67.25	84,969	484
Iron and steel (smelting and foundry) .. .. .	30.05	105.32	261,666	115
Clothing (including millinery) ..	27.33	64.69	412,075	62
Shipbuilding .. .. .	21.12	49.00	213,892	98
Railway construction and equip- ment .. .. .	20.66	41.56	270,697	—
Wool .. .. .	18.60	75.90	264,021	70
Gas undertakings .. .. .	17.28	21.60	73,440	208
Printing, bookbinding, etc. (except periodicals) .. .. .	15.34	24.71	174,116	88
Public works of local authorities other than undertakings (i.e. roads, drains, lighting, etc.) .. .. .	11.90	20.02	185,286	—
Bread and biscuit making .. .. .	11.52	38.96	110,357	104
Bleaching and dyeing .. .. .	10.48	17.94	103,813	101
Chemicals .. .. .	9.57	24.02	52,257	183
Jute, hemp, etc. .. .. .	9.45	32.10	154,500	61
Furniture .. .. .	9.30	18.09	92,106	101
Waterworks .. .. .	9.07	10.65	22,104	400
Boots and shoes .. .. .	8.93	23.01	126,806	71
Production of newspapers and periodicals .. .. .	8.87	13.55	46,736	190
Laundries .. .. .	7.21	9.38	131,521	53
Galvanised sheets, hardware, etc.	6.54	15.99	74,777	87
Grain milling .. .. .	6.45	65.32	36,177	173
Timber .. .. .	6.43	16.82	78,223	82
Cycle and motor .. .. .	5.90	11.58	54,043	109
Tobacco .. .. .	5.82	23.87	37,648	155
Electric undertakings .. .. .	5.59	8.91	22,600	248
Brick and fireclay .. .. .	5.46	8.32	69,592	78
Cocoa, confectionery, etc. .. .. .	5.14	16.29	61,292	84

<sup>1</sup>The value of the output of the brewing trade included duty. Excluding duty the figures would be 23 millions net output, amounting to £331 per head.



at once be observed. The coal output is practically all net, whereas the net output of the cotton trade is only about one-quarter the amount of the gross output. The net output per head is apt to be misleading, and suggests that the variations are caused by difference in wages. The explanation of the variations is due to the differences in capitalisation of the trades, the gas and water industries, for example, requiring less labour in proportion to the capital employed than the clothing and boot and shoe trades, laundries, and similar enterprises.

A third statement (Table C) shows forty-six more industries, whose net output ranged from one to five millions.

TABLE C

TRADES WHOSE NET OUTPUT WAS BETWEEN  
ONE AND FIVE MILLIONS

	MIL. £		
Glass, stone, roofing, etc. .. ..	..	..	4·8
China and earthenware .. ..	..	..	4·6
Paper making .. ..	..	..	4·5
Lace trade .. ..	..	..	3·6
Aerated waters, etc. .. ..	..	..	3·6
Leather tanning and dressing .. ..	..	..	3·4
Sugar and glucose .. ..	..	..	3·3
Bottling trade .. ..	..	..	3·1
Hosiery trade .. ..	..	..	3·1
Quarries other than lime, slate, and iron			3·1
Coke works at coal mines .. ..	..	..	3·0
Carriages and wagons .. ..	..	..	3·0

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	Mill. £
India-rubber goods .. .. .	3·0
Soap and candles .. .. .	2·9
Paints, colours, and varnish .. .. .	2·7
Anchors, chairs, screws, etc. .. .. .	2·3
Iron and steel tubes .. .. .	2·2
Wire .. .. .	2·1
Tools .. .. .	2·1
Hats and bonnets .. .. .	2·1
Cement .. .. .	2·0
Tinplate trade .. .. .	2·0
Stationery .. .. .	2·0
Household articles, farinaceous foods, etc. .. .. .	2·0
Meat and fish preserving .. .. .	1·9
Fertilisers, glue, disinfectants, etc. .. .. .	1·9
Silk .. .. .	1·8
Iron mines and quarries .. .. .	1·7
Heat, light, and sanitary engineering..	1·6
Blacksmithing .. .. .	1·5
Scientific instruments .. .. .	1·5
Spirit distilling .. .. .	1·5
Explosives, ammunition, and fireworks	1·5
Seed crushing .. .. .	1·4
Limestone quarries and kilns .. .. .	1·4
Butter and cheese making .. .. .	1·2
Crates, boxes, and trunks .. .. .	1·2
Mines other than coal and iron .. .. .	1·2
Cutlery trades .. .. .	1·1
Rope and net making .. .. .	1·1
Bacon curing .. .. .	1·1
Ivory, bone, and fancy articles .. .. .	1·1
Oil and tallow trades .. .. .	1·1
Cardboard boxes .. .. .	1·1
Saddlery and harness .. .. .	1·1
Slate quarries .. .. .	1·0

With these tables before him, the reader

may obtain a general idea of the statistical importance of the various branches of British commerce.

The agricultural industry of Great Britain opens up too vast a subject to be adequately dealt with in this volume, and I propose, therefore, to confine myself to a brief review of the present position. It is computed that there are 1,173,000 persons permanently employed in agriculture in Great Britain. Of this number three-fourths are males. There are, in addition, about 167,000 temporary labourers. It is probable that the latter number would be very considerably swollen if it were possible to calculate the number of persons engaged in other occupations who temporarily engage in agricultural work during the harvest season. The smallness of the official figures does not suggest that the large nomadic population engaged temporarily in picking successive crops of strawberries, raspberries, hops, etc., is included, whilst some thousands of children are also temporarily engaged in this work for several weeks in the year. The Board of Agriculture estimates that in 1908 there were in Great Britain 508,629 agricultural holdings of over one acre in extent, classified as follows :—

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	ENGLAND	WALES	SCOTLAND
1 to 5 acres ..	79,837	10,121	18,136
5 to 50 acres ..	165,265	31,953	34,601
50 to 300 acres ..	109,830	18,034	23,138
Over 300 acres ..	14,651	390	2,673
<b>TOTAL ..</b>	<b>369,583</b>	<b>60,498</b>	<b>78,548</b>

The total average of these holdings was, approximately, 31,870,591 acres, and the greater part of the larger farms (that is, over 50 acres) are mixed holdings, whilst the smaller farms appear to be mostly devoted to pasture.

During 1908, which is the last official censal year, the foregoing holdings produced crops of the market value of £125,000,000, of which one-third was sold, and the remaining two-thirds was used for stock-feeding and replenishing the land. The principal crops were as follows:—

Clover and hay ..	9,700,000 tons	£31,800,000
Turnips and swedes	23,700,000 tons	23,700,000
Oats .. ..	15,400,000 qrs.	13,200,000
Straw .. ..	7,000,000 tons	12,600,000
Wheat .. ..	6,500,000 qrs.	10,300,000
Potatoes .. ..	3,900,000 tons	9,900,000
Barley .. ..	6,800,000 qrs.	9,200,000
Mangold .. ..	9,000,000 tons	7,200,000

The largest crops are naturally those used for fodder.

The orchards under cultivation covered an area of 250,297 acres and their production was

principally in apples and strawberries. The apple crop of 1908 (the censal year) was four-and-a-half million cwt., of the market value of £1,490,000, and strawberries 829,000 cwt., of the value of £1,036,000. The aggregate value of all other fruit crops was £969,000. About one-half of the apple production of the country is used for cider-making, the production of cider in 1908 being seventeen-and-a-half million gallons of £381,000 value.

The area covered by woodland is two-and-three-quarter million acres, but the amount of timber put on the market is less than fifteen million cubic feet, whereas we import each year about 500,000,000 cubic feet.

Live stock and dairy farming form an important section of the agricultural industry of the country. The number of sheep amounts to over 27,000,000, of which about 7,600,000 were slaughtered in 1908. The wool clip was valued at £2,600,000 and the total wool production (that is, reckoning skin fleeces) was about £3,000,000 sterling compared with imports of nearly £28,000,000. The number of cows was 6,900,000, producing 1,208,000,000 gallons of milk, of which 850,000,000 gallons were marketed as whole milk, valued at about £25,000,000, and the

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balance as skim milk, cream, butter (valued at £2,900,000), and cheese.

Roughly speaking, therefore, our present-day agricultural industry may be said to be concerning itself with providing fodder for its live stock rather than in growing crops for human consumption; in growing apples for cider-making, and, to use Gladstone's phrase, in 'growing jam'; and in providing the country with an adequate milk supply. We depend almost entirely upon other countries for the great bulk of the foodstuffs we consume.