Belgium; but the towns of England and Wales of 50,000 inhabitants and upwards have nearly 9½ million inhabitants, or 44 per cent. of the whole population.

Density of Population.—The town population amounts in some districts, such as Gumbinnen (East Prussia) and Lower Bavaria, to only 11 to 12 per cent.; in others, as Zwickau, Leipsic, Düsseldorf, it reaches 50 to 66 per cent. Arranging Germany in 13 large divisions, we get the following table, the divisions being named after their principal provinces :—

Divisions.	Population 1875.	Per Sq. Mile.	Proportion per cent. of Town Popul.	Proportion per cent. of Rural Popul.
1. Prussia (East and West)	3,199,171	122	23·8	76·2
2. Pomerania, Schleswig-Holstein, Mecklenburg, &c.	3,665,289	144	42·3	57·7
3. Brandenburg (not including Berlin) and Posen	3,765,637	142	30·0	70·0
4. Hanover, Münster, Oldenburg, &c.	2,437,476	137	35·0	65·0
5. Bavaria (not including Palatinate)	4,381,136	168	25·0	75·0
6. Prov. of Saxony, Anhalt, Brunswick, &c.	3,123,643	228	40·8	59·2
7. Silesia	3,843,699	247	32·0	67·0
8. Hesse, Hesse-Nassau, Minden, Lippe	3,033,856	250	33·6	66·4
9. Würtemberg, Baden	3,455,150	250	33·9	66·1
10. Alsace-Lorraine, Palatinate	2,173,038	274	35·9	64·1
11. Rhineland, Arnsberg	4,823,212	333	60·2	39·8
12. Saxony and Thüringia	3,839,972	365	40·8	59·2
13. Berlin	966,858	...	100	...
Total	42,727,360	205	37·9	62·1

The most thinly peopled territories are found, not as might be expected in the mountain regions, but in some parts of the plains. There are not more than 50 persons to the square mile (about the same proportion as in the Scotch Highlands) on the moors of the Isar north of Munich, on the East-Frisian moors, and on the Lüneburg Heath. There are 50 to 100 inhabitants to the square mile on the Seenplatten of Pomerania and Mecklenburg, on the middle ridges of Schleswig-Holstein, in the northern districts of Hanover, in the Spreewald, &c. Leaving out of account the small centres, Germany may be roughly divided into two thinly and two densely peopled parts. In the former division has to be classed all the North German plain; there it is only in the valleys of the larger navigable rivers, and on the southern border of the plain, that the density reaches 150 to 200 inhabitants per square mile. In some places indeed it is far greater: at the mouths of the Elbe and the Weser, in East Holstein, in the delta of the Memel, 250 to 300, and in the environs of Hamburg even 400, inhabitants are found to the square mile. This region is bordered on the south by a very densely inhabited district, the northern boundary of which may be defined by a line from Breslau to Hanover, and its southern by a line from Coburg *via* Cassel to Münster. Here the density rises from 150 to 570 per square mile, for in this part of Germany there are not only very fertile districts, such as the "Goldene Aue" in Thuringia, but also centres of industry. The population is thickest in Upper Silesia around Beuthen (coal-fields), round Ratibor, Neisse, and Waldenburg (coal-fields), round Zittau (Saxony), in the Elbe valley around Dresden, in the districts of Zwickau and Leipsic as far as the Saale, in the Goldene Aue, on the northern slopes of the Hartz, and around Bielefeld in Westphalia. In all these places the density is greater than 350 inhabitants to the square mile, and in Saxony it exceeds 500. The third division of Germany comprises the basin of the Danube and Franconia (the Upper Main system), and sweeps to the north-west between the valleys of the Werra and the tributaries of the Rhine as far as Sauerland. The population of Franconia rises a little above that of the rest of this region, the density in the valley of the Regnitz between Nuremberg and Bamberg, and in the Main valley round Würzburg, reaching about 200 to 240 inhabitants per square mile. The fourth division embraces the valleys of the Rhine and the Neckar. In the latter and in the Upper Rhine plain agriculture has reached a high degree of perfection, and the soil is so fertile as to support a population of 400 per square mile. North of the Niederrheinisches Schiefergebirge, again, are rich coal-fields,—making this the most important industrial district in Germany. Here indeed, in the governmental district of Düsseldorf, the population amounts to 700 per square mile,—about the same proportion as in the West Riding of Yorkshire; but no such density as exists in Lancashire (1500 to the square mile) is found anywhere in Germany. West of the Rhine a thickly peopled district is grouped round the coal-field of the Saar basin, but there is only a scattered population in the surrounding country. On the Eifel there are scarcely 100 inhabitants to the square mile.

Houses.—The number of houses was estimated in 1871 at 5,330,000, so that the average number of inhabitants per house is from 7 to 8. In England and Wales it is only 5·3 (1871). The greatest proportion of dwelling-houses to the population is in Alsace (5·1 persons to one house) and in Swabia (5·4). All the larger cities of Germany consist largely of houses in which a number of families live together. In Berlin the proportion per house is 57 persons, while in London it is only 8. This marks one important point of difference in the habits of the two countries.

Occupations.—The census of 1871 distinguishes 8 principal classes of occupation, but does not subdivide these. The official returns give for each class the number of persons engaged in the several occupations comprised in that class, with the numbers of attendants and other members of the families of those so occupied. The following table presents an abstract of the returns. In the case of Alsace-Lorraine the attendants are not given in the separate classes, but are all returned under class D.

Occupations.		Engaged in the several occupations.	Attendants and other members of families.	Total.
A. Agricultural class	males	2,968,738	2,986,556	12,179,307
	females	976,669	5,247,344	
B. Industrial class	males	4,498,739	2,462,937	13,407,793
	females	1,086,071	5,360,046	
C. Commercial class	males	1,023,260	322,249	3,256,665
	females	201,641	1,709,415	
D Domestic class (and general labourers)	males	1,777,118	2,344,235	9,569,658
	females	936,901	4,511,404	
E. Army and Navy	males	430,800	20,654	508,413
	females	...	56,959	
G Other occupations	males	506,734	318,238	1,751,976
	females	98,974	828,030	
H. Persons not returned under any occupation	males	414,284	255,322	1,985,162
	females	620,881	694,685	
I. Not stated (poor, &c.)	males	...	...	437,968
	females	...	...	
Total		15,540,610	25,080,214	41,058,792

This table does not admit of comparison with the census returns of England and Wales, the mode of classification being different. It will be seen that more persons belong to the industrial than to the agricultural class.

INDUSTRIES.

Some account of different industries has already been given in connexion with the productions of the empire. The principal textile manufactures have still to be noticed.

Cotton Manufacture.—Before 1871 the production of cotton fabrics in France exceeded that in Germany; but as the cotton manufacture is pursued largely in Alsace, more than 2 million spindles being employed there, the balance is now against the former country. In 1873 there were about 5 million spindles in Germany and 4,611,000 in France. From the subjoined table of imports and exports (gross

weight, the net weight being about 4 per cent. less) of the raw material, it will be seen that this industry has not improved since 1873 :—

	Total Imports of Raw Cotton.	Total Exports of Raw Cotton.	Excess of Imports.
	Cwts.	Cwts.	Cwts.
1873	3,609,000	1,153,000	2,456,000
1874	3,490,000	848,000	2,642,000
1875	3,199,000	819,000	2,380,000
1876	3,518,000	705,000	2,813,000
1877	3,262,000	831,000	2,431,000
1878	3,289,000	973,000	2,313,000

Cotton spinning and weaving are not confined to one district, but are prosecuted in Upper Alsace (Mülhausen, Gebweiler, Colmar), in Saxony (Zwickau, Chemnitz, Annaberg), in Silesia (Breslau, Lieguitz), in the Rhine province (Düsseldorf, Münster, Cologne), in Erfurt and Hanover, in Würtemberg (Reutlingen, Cannstadt), in Baden, Bavaria (Augsburg, Bamberg, Baireuth), and in the Palatinate. The number of hands occupied in the mills in 1875 was 68,555 (34,385 males, 34,170 females) and in the weaving establishments 186,496 (124,732 males and 61,764 females). Of these 98,188 were in Saxony. The production of cotton yarn is not sufficient for the home demand, and for some years back the imports of the article have exceeded the exports by about 200,000 cwts., till 1878, when the excess was only 117,000 cwts.

Woollen and Worsted.—In this class of manufactures Germany is far behind France. First of all, the home production of wool is not sufficient. In 1873–75 the imports of wool exceeded the exports by 300,000 cwts. per annum, and in 1876–78 the excess amounted to 800,000 cwts. In 1875 there were about 1,200,000 spindles for carded woollen yarn,—about 700,000 of them in Prussia, and 320,000 in Saxony. For worsted spinning there were 450,000 spindles,—Upper Alsace having 180,000, and Saxony 110,000; nevertheless the production falls short of the demand, and from 150,000 to 250,000 cwts. must be obtained from foreign countries. The manufacture of woollen cloth is well developed, and is prosecuted for exportation. The cloth is valued as being well woven, durable, and cheap. The centres of its manufacture are the Rhine province, Brandenburg, Lower Silesia, Magdeburg, Thuringia, Saxony, Würtemberg, and Alsace. In 1875 there were altogether 192,452 persons engaged in the woollen industry.

Linen, Hemp, and Jute.—Germany, although linen was formerly one of her most important articles of manufacture, is now left far behind in this industry, not only by Great Britain and France, but also by Austria-Hungary. In 1874 there were 326,538 spindles at work in Germany for flax, hemp, and jute spinning, while there were 415,000 in Austria, 663,000 in France, and 1,670,000 in Great Britain. About 300,000 cwts. of linen yarn are imported into Germany annually, whereas Austria exports about 100,000 cwts. Hand-loom weaving is practised all over Germany, but centres principally in Saxony, Silesia, and Westphalia. In recent times also power-loom weaving has been extending. In 1873 there were 68 establishments in Germany, principally at Elberfeld and Barmen, with 3473 power-looms, including 7 factories, with 546 power-looms, for jute. The linen industry employed 187,793 persons in 1875. The demand for linen is nearly covered by the home production.

Silk.—Raw silk can scarcely be ranked among the products of the empire, and the annual demand has thus to be provided for by importation. It amounts to about 50,000 cwts., there being some superior silk-weaving establishments. The main centre of the silk industry is Crefeld and its neighbourhood; then come Elberfeld and Barmen, Aix-la-Chapelle, as well as Berlin, Potsdam, Chemnitz and Annaberg, Munich, Stuttgart, Saargemünd, &c. The exports of silk stuffs always exceed the imports.

General Census of Industries.—In 1875 a census of industrial occupations was taken in Germany. The following table gives the numbers of the different establishments and of the persons engaged in them :—

Classes.	Establishments.	Persons Engaged.
1. Horticulturists	13,072	24,893
2. Fishermen	15,636	19,623
3. Miners	7,893	433,109
4. Workers in stone, clay, glass	51,235	265,139
5. Workers in metal	164,328	420,445
6. Workers in machines, instruments, &c.	83,635	307,705
7. Chemical industry	8,640	51,739
8. Workers in lighting materials, soap, resins, &c.	8,947	42,318
9. Textile industry	380,918	925,457
10. Workers in paper and leather	56,614	187,174
11. Workers in wood	245,703	463,533
12. Workers in food and drink	241,694	693,278
13. Workers in dress and washing	755,616	1,049,470
14. Workers in building	234,334	485,997
15. Polygraphic industry	8,108	55,852
16. Artistic industry	5,534	13,183
17. Persons in mercantile business	420,129	659,988
18. Persons engaged in conveyance	74,655	233,819
19. Lodging and boarding	159,881	234,848
Total	2,936,572	6,467,570

ROADS, RAILWAYS, AND CANALS.

Roads.—The construction of good highways has been well attended to in Germany only since the Napoleonic wars. The separation of the empire into small states was favourable to road-making, inasmuch as it was principally the smaller Governments that expended large sums for their network of roads. Thirty years ago the best roads were found in Hanover and Thuringia: the Thüringer Wald has been almost transformed into a park by its splendid roads. But some districts suffer even still from the want of good highways. The introduction of railways for a time diverted attention from road-making, but this neglect has of late been to some extent remedied. In Prussia the circles (*Kreise*) have now themselves undertaken the charge of the construction of the roads; but they receive a subsidy from the public funds of the several provinces. The total length of the public roads is now estimated at 72,000 miles.

Railways.—The period of railway construction was inaugurated in Germany by the opening of the line from Nuremberg to Fürth in 1835, but the development of the system was slow. The want of a central government operated injuriously here, for it frequently happened that intricate negotiations and solemn treaties between several sovereign states were required before a line could be constructed; and moreover the course it was to take was often determined less by the general exigencies of commerce than by many trifling interests or desires of neighbouring states. The state which was most self-seeking in its railway politics was Hanover, which separated the eastern and western parts of the kingdom of Prussia. The difficulties arising to Prussia from this source were experienced in a still greater degree by the seaports of Bremen and Hamburg. Until 1866 there was no railway from Bremen into the interior of Germany, while now there are four. Prior to 1865 the construction of railways advanced pretty uniformly, the average construction during the years from 1840 to 1865 having been from 340 to 370 miles per annum. Germany was at that time far outstripped in the extent of its railway system by England, Belgium, and Switzerland, and even by France. A new period of railway construction begins

with the year 1866, and is closely connected with the economical and political progress of Germany. Numerous great undertakings were then set on foot, partly to remedy the defects of the existing system. Everywhere it became a primary object to establish the most direct lines of communication between important places of industry and commerce. As a consequence the German railway system was immensely enlarged, and from 1865–75 it has nearly been doubled. In 1872, 2000 miles were opened, the average from 1869 to 1877 being 1080 miles annually, so that Germany now owns a greater length of railways than any other state in Europe. On the 31st December 1877 Germany had 18,830 miles, Great Britain and Ireland 17,092, France 14,785. As regards proportion to the area and population, however, Belgium, Great Britain, and Switzerland are still in advance. In 1877 Belgium had 320 miles of railways to every 1000 square miles, Great Britain 273, Switzerland 155, and Germany 147. The following table exhibits the development of the German railways, including those of Alsace-Lorraine :—

Years. Dec. 31.	Length of Lines open for Traffic.	Of which double Lines.	Cost of Construction.
	Miles.	Miles.	£
1840	304		
1850	3,753		
1860	7,195		
1865	8,887		
1870	11,457	3,699	207,608,000
1875	17,061	5,622	339,225,000
1876	18,080	5,735	373,558,000
1877	18,830		

In recent years the multiplication of competing railways has greatly reduced the receipts of the older lines. The total amount of capital sunk in railway construction is estimated for the year 1876 at £373,558,000, or just about half the capital invested for the same purpose in Great Britain (£741,800,000). From the subjoined table it will be seen that the working expenses have considerably advanced during late years, and dividends accordingly have experienced a great decline. Railways formerly paying 15 to 18 per cent. have gone down to 5 to 6; the average dividend, which in 1870 was still 6 per cent., in 1876 had fallen to 4·4 per cent.

	Total Receipts.	Total Working Expenditure.	Net Receipts.	Proportion of Expenditure to total Receipts.
	£	£	£	Per cent.
1870	25,312,000	12,770,000	12,543,000	50·5
1875	42,151,000	26,534,000	15,617,000	63·0
1876	42,862,000	26,559,000	16,303,000	62·0

The making of railways has from the outset been regarded by some German states as exclusively a function of the Government. The South German states, for example, possess only state railways. In Prussia numerous companies have in the first instance constructed their systems, and the state has contented itself for the most part with laying lines in such districts only as were not likely to attract private capital. Yet, in order to establish a preponderating influence over the administration of all German railways, the Government has for some time been buying up private lines. Saxony not long ago purchased all the Saxon railways belonging to private companies. The following table gives the proportion of state and private railways at 31st December 1877, the minor North German states being classed along with Prussia. Of these Oldenburg alone possesses a greater length of railways belonging to the state than of those in the hands of private companies. The railways of Alsace-Lorraine are the property of the empire. The number of independent managements in 1878 was 67.

States.	State Railways.	Private Railways worked by State.	Private Railways.	Total.
	Miles.	Miles.	Miles.	Miles.
Prussia and minor German States	3,285	2,060	6,857	12,202
Bavaria	2,241	169	371	2,781
Saxony	1,035	23	170	1,228
Würtemberg	761	..	10	771
Baden	651	77	4	732
Hesse	179	...	270	449
Alsace-Lorraine	660	...	7	667
Total	8,812	2,329	7,689	18,830

Canals.—Germany cannot be said to be rich in canals. In South Germany the Ludwigs-canal was until the annexation of Alsace-Lorraine the only one of importance. It was constructed by King Ludwig of Bavaria in order to unite the German Ocean and the Black Sea, and extends from the Main at Bamberg to Kelheim on the Danube. Alsace-Lorraine had canals for connecting the Rhine with the Rhone and the Marne; the coals of the Saar valley were conveyed by canals to Lorraine. The North German plain has several canals, of which only the more important need be named. In the east a canal by which Russian grain is conveyed to Königsberg joins the Pregel to the Memel. The Netze canal unites the Vistula and Oder. The Upper Silesian coal-field is in communication with the Oder by means of a canal. The greatest number of canals is found around Berlin; they serve to join the Spree to the Oder and Elbe. Smaller canals are found also in the north-west. The Meuse and the Rhine are also connected by a canal. The 70 canals in Germany have a total length of only 1250 miles, a very small extent when the other canal systems of western Europe are compared with it.

Posts and Telegraphs.

With the exception of Bavaria and Würtemberg, which have administrations of their own, all the German states belong to the system of the reichspost. Since 1874 the postal and telegraphic departments have been combined. Both branches of administration have undergone a surprising development during the last 10 years, especially since the reduction of the postal rates. Germany, including Bavaria and Würtemberg, constitutes with Austria-Hungary a special postal union (Deutsch-Oesterreichischer Postverband), besides forming part of the international postal union. There are no statistics of posts and telegraphs before 1867, for it was only when the North German union was formed that the lesser states resigned their right of carrying mails in favour of the central authority. Formerly the prince of Thurn-and-Taxis was postmaster-general of Germany, but only some of the central states belonged to his postal territory. The seat of management was Frankfort. Of late years the number of post-offices has increased considerably, as will be seen from the following figures, in which the statistics of the Bavarian and Würtemberg post-offices are included, as well as those of the reichspost. In 1872 there were 7400 post-offices; in 1877, 8600. In the latter year therefore there was one post-office for every 23 square miles. In 1877 there were 3194 imperial post-and-telegraph offices, and 3746 imperial post-offices, while the Bavarian post-offices numbered 1243, and those of Würtemberg 499. The following table shows the increase of letter circulation from 1872 to 1877 :—

	Letters. Imperial Post.	Total in German Empire.	Average Number to each Person.
	Millions.	Millions.	
1872	352·0	407·3	10
1873	429·0	492·4	12
1874	456·6	521·9	13
1875	498·2	576·0	14
1876	516·4	596·3	14
1877	521·5	604·2	14

The average number of letters to each person is thus a little greater in Germany than it is in Ireland, whereas it is 26 in Scotland and 35 in England. The number of post-cards has increased from 26·5 millions in 1872 to 99·3 millions in 1877. The following table shows the general postal circulation during the three years 1875–77 :—

	1875.	1876.	1877.
	Millions.	Millions.	Millions.
Letters	576·0	596·3	604·2
Post-cards	64·7	82·7	99·3
Printed papers	93·0	101·0	112·4
Newspapers	392·8	414·2	433·5
Samples	9·3	9·0	9·8
Money orders	33·5	39·8	...
Total amount of money orders and remittances	£840	£793	£784
Parcels	78·4	80·3	82·3
Total weight of parcels	lb 559	lb 583	lb 915

Telegraphs.—By combining the postal and telegraphic departments Germany has been saved a large number of officials; but great sums are still spent annually on the extension of the telegraph system. Since 1876 important localities have been brought into communication with Berlin by subterranean wires. This plan is expensive, but under it a considerable saving is anticipated in repairs. The number of telegraph offices in 1877 was 7251, of which about 4600 belonged to the state, and the rest to private railways. The following table shows the progress of the telegraphic system between 1872 and 1877, and the number of messages in these two years :—

Telegraph Service.	1872.	1877.
	Miles.	Miles.
Length of line	23,350	33,660
Length of wire	77,870	121,810
Number of offices	4,038	7,251
Number of messages—		
Home service	8,478,000	8,994,000
International (includ. in transit)	4,945,000	5,203,000

The increase of messages is insignificant, a circumstance which must be attributed to the recent dulness of trade. On the whole the telegraph is not as yet used to a very great extent in Germany. The number of messages for every 100 inhabitants in 1877 was 33, as compared with 47 in Norway, 49 in Denmark, 54 in Belgium, 58 in the Netherlands, 64 in Great Britain, and 100 in Switzerland.

Shipping.

The German mercantile marine has always been distinguished by the excellence of its personnel. The seamen of Frisia are acknowledged to be among the best in the world, and the shipping of Bremen and Hamburg had won an everywhere respected name long before a German mercantile marine, properly so-called, was heard of. Many Hamburg vessels sailed under charter of English and other houses in foreign waters, especially in the Chinese. Since 1868 all German ships have carried a common flag—black, white, red—but formerly Oldenburg, Hanover, Bremen, Hamburg, Lübeck, Mecklenburg, and Prussia had each its own flag, and Schleswig-Holstein vessels sailed under the Danish flag. It is but lately that a uniform mode of measuring the hold tonnage of German ships has been introduced, and accordingly it is only since 1871 that it has been possible to give an exact statement of the position of German shipping. The official returns show that the marine is on the increase. The following table gives its position on the 1st of January in the years 1872–78. The tonnage is reckoned according to the English register ton.

	Sailing Vessels.		Steamers.		Total.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.
1872	4,354	892,000	175	97,000	4,529	988,000
1873	4,311	869,000	216	130,000	4,527	999,000
1874	4,242	866,000	253	168,000	4,495	1,034,000
1875	4,303	878,000	299	190,000	4,602	1,068,000
1876	4,426	901,000	319	184,000	4,745	1,084,000
1877	4,491	923,000	318	181,000	4,809	1,104,000
1878	4,469	935,000	336	183,000	4,805	1,118,000

The lowest tonnage of vessels included in this return is 16 tons for sailing vessels and 11 tons for steamers. On comparing the state of the German marine with that of other countries we find that Germany ranks fourth in the list of maritime nations. Great Britain and the United States have considerably larger fleets. That of Norway also was even in 1871 greater than that of Germany, and it has increased much more rapidly than the other since that time; but on the other hand the mercantile marines of France and Italy, which in 1871 were larger than the German, are both now less. The following table shows the proportion of the mercantile shipping of Germany belonging to each of the maritime states on the 1st of January 1878. It must be borne in mind that Bremen and Hamburg properly consist only of one port each, whereas Prussia has hundreds of miles of coast-line both on the North Sea and on the Baltic.

States.	Number of Ports.	Sailing Vessels.	Steamers.	Total.
		Tons.	Tons.	Tons.
Prussia	243	464,477	31,573	496,050
Hamburg	2	137,347	84,127	221,474
Bremen	2	158,677	57,377	216,054
Mecklenburg	2	108,521	3,812	112,333
Oldenburg	21	61,774	27	61,801
Lübeck	1	3,760	6,463	10,223
Total	271	934,556	183,379	1,117,935
North Sea Ports	62	419 698	38,699	458,397
Baltic Ports	209	514,858	144,680	659,538

The number and the tonnage of steamers have, as in other countries, increased greatly, while those of sailing vessels have remained almost stationary. The aggregate horse-power of the steamers in 1871 was 23,287; in 1877 it was 50,603. The number of seamen employed in 1878 was 40,832, and of those 8173 served on board steamers.

In 1876 165 sailing vessels of 35,439 tons, and 14 steamers of 6200 tons, were built in Germany; and 8 sailing vessels of 3862 tons, and 1 steamer of 1910 tons, were built abroad. There were besides 50 ships with a total tonnage of 21,755 which had been bought in America, Holland, and Great Britain.

The shipping returns of German ports have lately fluctuated but little. The total amount was 13,311,000 tons in 1876. A striking difference will be observed in the following table in the returns between the numbers entering and clearing in ballast:—

Total Tonnage of Ships, 1876.

	With Cargo.	In Ballast.	Not for Trade.	Total.
	Tons.	Tons.	Tons.	Tons.
Entered	6,072,000	505,000	130,000	6,585,000
Cleared	4,100,000	2,619,000	128,000	6,726,000

Only 44 per cent. of the ships that trade with German ports sail under the German flag. British ships have a very considerable trade in German ports. They constitute 32 per cent. of the total tonnage, and as much as 47 per cent. of the tonnage of steam vessels. Denmark follows next with 7·2 per cent., Sweden 4·8, Norway 4·6, Russia 2·3, Holland 2·1, France 1·2, United States 1·2, Italy 0·5, other countries 0·4. The number of voyages in all made by German ships in 1876 was 45,492, of which 12,963 were made between German ports. Much more considerable, however, is the trade of German ships between the home ports and foreign countries, as the subjoined table will show, while no fewer than 9777 voyages were made in 1876 by German vessels without calling at any home port :—

	Number of Ships with Cargo.	Tonnage of Ships with Cargo.	Number of Ships in Ballast.	Tonnage of Ships in Ballast.
Home trade (average of entered and cleared ships)	12,963	577,000	5,194	220,000
Foreign trade { entd. into German ports	8,002	1,984,000	710	79,000
Foreign trade { cleared from " "	5,449	1,552,000	3,397	602,000
Voyages of German ships between foreign ports	6,950	3,314,000	2,827	880,000
Total.....	33,364	7,429,000	12,128	1,782,000

There were 5544 voyages made between non-German ports in Europe, the greater number being between one English port and another. Many German vessels also run between the Baltic ports of Russia and Sweden. From European ports 993 vessels sailed for non-European ports, and 869 returned thence to Europe. Here also the greater number ran from Great Britain to the United States, the West Indies, and South America. 2371 ships made their voyages without touching at European ports. Most of these were engaged in the coasting trade in the Chinese Seas, on the South American coasts, and in the West Indies.

As regards the shipping of the most important German ports, the following table will show the total tonnage of ships entered and cleared in 1876 :—

Ports.	Tonnage	Ports.	Tonnage.
Hamburg.....	4,406,000	Kiel	608,000
Bremerhafen	1,300,000	Pillau	440,000
Stettin.....	1,144,000	Königsberg	418,000
Neufahrwasser (Dantzic)	780,000	Geestemünde.....	378,000
		Memel	352,000
Lübeck	646,000	Swinemünde	332,000

Commerce.

Statistics relating to the foreign trade of the empire are necessarily confined to very recent times. The quantities of such imported articles as are liable to duty have indeed been known for many years; and some years ago an attempt was also made to compile official tables showing the value both of imports and of exports. But when the results of these tables proved the importation to be very much greater than the exportation, the conviction arose that the valuation of the exports was erroneous, and below the reality. There is no compulsory declaration of such goods, and consequently the attempt to compute statistics of this nature has been abandoned since 1875. It must at the outset be observed that the customs frontier does not coincide with the political frontier of Germany, for it does not take in the free-port territories of Hamburg and Cuxhaven, Bremen, Bremerhafen and Geestemünde, &c. (in all, 129 square miles with 593,040 inhabitants, in 1875), besides some communes in Baden adjoining the Lake of Constance (22 square miles, 5236 inhabitants). On the other hand the grand-duchy of Luxembourg (998 square miles, with 205,158 inhabitants in 1875) and the small Austrian commune of Jungholz 206 inhabitants), near Füssen, belong to the German Zollverein. The collection of duties is a function of the empire. The following table shows the results of the official calculations of the imports into Germany for 1872–76, and also the values of the exports, but in the case of these it is only the figures for the years 1872–74 that are official. The numbers for 1875 and 1876 are those published by Professor Laspeyres in the *Économiste Français*.

Years.	Imports.	Exports.	Transit.
1872	£173,400,000	£124,700,000	£54,700,000
1873	212,800,000	124,400,000	61,700,000
1874	183,700,000	121,600,000	
1875	176,500,000	127,400,000	
1876	190,200,000	127,600,000	
Average...	187,100,000	125,200,000	

The extremely slight variation which this table shows in the exports of the several years from 1872 to 1876 appears so improbable that we can hardly venture to make it a basis of calculation, or to draw a conclusion so unfavourable to the trading balance of Germany as the figures would suggest. The proportion per head of population is, as regards imports and exports respectively, about £4, 10s. and £3, whereas the proportion in Great Britain in 1876 amounted in the one case to £11, 10s. and in the other to £6, thus showing the German trade to be less than half that of England. The statistical tables do not specify the several foreign markets for imports and exports; they only give the value of imports on the different frontiers.

Frontiers.	Total Value of Imports. 1875.	1876.
	Millions.	Millions.
North Sea line, including Bremen and Hamburg.....	£56·6	£62·4
Denmark	1·0	1·0
Russia	19·0	19·2
Austria	32·2	36·3
Switzerland	8·0	9·2
France	11·3	12·1
Belgium	16·3	16·3
Holland.....	27·1	28·8
By post, or frontier not stated.....	5·0	4 9
Total.....	176·5	190·2

According to the official trade returns of Great Britain, France, and other countries, the trade between Germany and these countries is very considerable. By the English tables the importation from Germany to British ports was in 1875–76 between £21,000,000 and £22,000,000; the exportation to Germany in 1875 was £23,300,000, and in 1876, £20,100,000. The movement of trade is shown in the following tables of the principal articles imported and exported. We begin with articles of consumption :—

Articles.	1872. Imports.	1872. Exports.	1877. Imports.	1877. Exports.
Animals, except horses..No	1,490,000	1,719,000	2,443,000	1,848,000
Grain and flour .....Cwts.	28,800,000	21,560,000	73,070,000	39,600,000
Herrings .....Barrels.	691,000	...	667,000	...
Coffee .....Cwts.	1,835,000	...	1,915,000	...
Sugar ..... "	879,000	264,000	185,000	1,802,000
Wine..... "	817,000	400,000	1,182,000	880,000
Beer ..... "	100,000	590,000	300,000	1,260,000
Hops ..... "	25,000	142,000	26,000	162,000
Tobacco ..... "	1,128,000	140,000	1,043,000	120,000

The weights are stated in hundredweights (cwts.) net throughout (see *Statistical Abstract* published by the English Board of Trade, No. V., 1878). This table shows that of late years Germany has had to order considerable quantities of grain from abroad. The value of the importation, estimated at £14,000,000 in 1872, was nearly £36,000,000 in 1877. Similarly the value of the imported animals advanced from £4,400,000 in 1872 to £9,500,000 in 1877.

The following table gives the imports and exports of the principal raw materials :—

Articles.	1872. Imports.	1872. Exports.	1877. Imports.	1877. Exports.
Coal, lignite, &c.....Cwts.	71,600,000	76,395,000	95,000,000	100,184,000
Ores ..... "	8,200,000	5,300,000	6,855,000	16,140,000
Iron, pig..... "	12,395,000	3,616,000	10,536,000	9,119,000
Lead, pig ..... "	163,000	433,000	60,000	649,000
Cotton, raw..... "	2,836,000	614,000	3,130,000	798,000
Flax ..... "	786,000	667,000	1,380,000	1,010,000
Hemp ..... "	500,000	248,000	930,000	469,000
Wool, raw..... "	1,070,000	337,000	1,370,000	445,000
Silk, raw cocoons ..... "	61,300	16,000	63,000	20,000
Hides..... "	1,181,000	290,000	857,000	295,000
Guano ..... "	1,400,000	190,000	2,440,000	127,000
Linseed, &c. ..... "	1,110,000	670,000	1,116,000	1,254,000
Grease ..... "	578,000	40,000	725,000	73,000
Petroleum ..... "	3,320,000	907,000	6,810,000	1,810,000
Wood... .....{ Cwts.	49,400,000	30,200,000	26,800,000	21,400,000
Wood... .....{ Pieces.	5,600,000	79,000	3,800,000	...

With regard to the proper products of industry, the exports, with few exceptions, such as yarn, exceed the imports in every case, as is shown in the table below. The total value of all fabrics imported is estimated at about £30,000,000, that of those exported at from £42,000,000 to £45,000,000. But, even supposing the last figures to be too low, the difference between the German and the British trade is still very great, since the value of all the industrial products exported by Great Britain may be stated at £170,000,000 for the year 1875 (see *Almanach de Gotha*, 1877). The difference is greatest in the textile industries, —the value of tissues exported from England in 1875 being estimated at £100,000,000, while that of Germany did not rank higher than from £20,000,000 to £25,000,000. Articles of hardware are showing a great decrease of imports and a considerable increase of exports.

Industrial Products—Imports and Exports.

Articles.	1872. Imports.	1872. Exports.	1877. Imports.	1877. Exports.
	Cwts.	Cwts.	Cwts.	Cwts.
Manufactures of cotton	48,000	166,000	45,000	216,000
" " silk	?	31,000	16,000	23,000
" " wool	163,000	285,000	114,000	238,000
Yarns	1,088,000	243,000	892,000	334,000
Leather	130,000	158,000	150,000	166,000
Glass and glass warcs.....	250,000	627,000	150,000	832,000
Metal wares	2,633,000	1,330,000	1,121,000	2,530,000
Machinery, exclus. of boilers	563,000	506,000	720,000	801,000
Rails	234,000	1,414,000	1,521,000	4,427,000
Musical instruments	8,000	53,000	10,000	69,100

The principal ports of import and export are Hamburg and Bremen, and in these places the annual amount of shipping business has advanced step by step with the general development of German trade. As to the total value of goods entering Hamburg we have accurate statistics for several decades.

Imports of Hamburg.

		Total Imports, exclud. Bullion.		Total Imports, exclud. Bullion.
		Millions.		Millions
Average.	1846–50	£20·5	1873	£85·3
	1851–60	33·5	1874	84·3
	1861–70	49·8	1875	85·1
	1871	77·3	1876	85·2
	1872	85·6	1877	88·8

The stagnation in the development of trade during the period 1871–77 is obvious; and with Bremen the case is the same. The following table states the total imports of Bremen by sea and from the interior. The importation from Germany or the Zollverein territory represents about one-third of the total amount. Bremen trades principally with the United States; Hamburg more with England, South America, &c.

Imports of Bremen.

		Total Imports.		Total Imports.
		Millions		Millions.
Average.	1847–51	£5·3	1873	£26·5
	1857–61	11·1	1874	24·9
	1867–71	17·1	1875	21·9
	1871	22·3	1876	22·1
	1872	24·8	1877	22·1

Government.

The German empire is a union of 25 sovereign states, —4 kingdoms, 6 grand-duchies, 5 duchies, 7 principalities, 3 free towns. Alsace-Lorraine, ceded by France at the peace concluded 10th May 1871, forms a twenty-sixth constituent of the confederation, but it is administered by the central authority. The supreme direction of the military and political affairs of the empire has, by the vote of the reichstag or diet of the North German confederation, been vested in the king of Prussia, who accordingly bears the title of German Emperor (Deutscher Kaiser).

The imperial dignity is hereditary in the line of Hohenzollern, and follows the law of primogeniture. The emperor exercises the imperial power in the name of the confederated states. In his office he is assisted by a federal council or bundesrath, which represents the Governments of the individual states of Germany. The members of this council, 59 in number, are appointed for each session by the Governments of the individual states. The legislative functions of the empire are vested in the emperor, the bundesrath, and the reichstag or diet. The members of the latter, 397 in number, are elected for a space of three years by universal suffrage. Vote is by ballot, and one member is elected by (approximately) every 100,000 inhabitants.

As regards its legislative functions, the empire has supreme and independent control in matters relating to military affairs and the navy, to the imperial finances, to German commerce, to posts and telegraphs, and also to railways, in so far as these affect the common defence of the country. Bavaria and Würtemberg, however, have preserved their own postal and telegraphic administration. The legislative power of the empire also takes precedence of that of the separate states in the regulation of matters affecting freedom of migration (Freizügigkeit), domicile, settlement, and the rights of German subjects generally, as well as in all that relates to banking, patents, protection of intellectual property, navigation of rivers and canals, civil and criminal legislation, judicial procedure, sanitary police, and control of the press and of associations.

The executive power is in the emperor's hands. He represents the empire internationally, and can declare war if defensive, and make peace as well as enter into treaties with other nations; he also appoints and receives ambassadors. For declaring offensive war the consent of the federal council must be obtained. The separate states have the privilege of sending ambassadors to the other courts; but all consuls abroad are officials of the empire, and are named by the emperor.

Both the federal council and the reichstag meet in annual sessions convoked by the emperor who has the right of proroguing and dissolving the diet; but the prorogation

must not exceed 60 days, and in case of dissolution new elections must be ordered within 60 days, and the new session opened within 90 days. All laws for the regulation of the empire must, in order to pass, receive the votes of an absolute majority of the federal council and the reichstag. The subjoined table gives the number of votes which the separate states have in the federal council. Each state may appoint as many members to the federal council as it has votes. The table also gives the number of the deputies in the reichstag. The official order of precedence of the 26 states is given in a former table (see p. 455); here they are arranged in the order of the number of their inhabitants.

Representation in Federal Council and Reichstag.

States of the Empire in order of their Population.	Population, 1875.	Votes in the Federal Council.	Deputies in the Reichstag.
1. Prussia	25,742,404	17	236
2. Bavaria	5,022,390	6	48
3. Saxony	2,760,586	4	23
4. Würtemberg	1,881,505	4	17
5. Alsace-Lorraine	1,531,804	0	15
6. Baden	1,507,179	3	14
7. Hesse	884,218	3	9
8. Mecklenburg-Schwerin	553,755	2	6
9. Hamburg	388,618	1	3
10. Brunswick	327,493	2	3
11. Oldenburg	319,314	1	3
12. Saxe-Weimar	292,933	1	3
13. Anhalt	213,565	1	2
14. Saxe-Meiningen	194,494	1	2
15. Saxe-Coburg-Gotha	182,599	1	2
16. Saxe-Altenburg	145,844	1	1
17. Bremen	142,200	1	1
18. Lippe	112,452	1	1
19. Mecklenburg-Strelitz	95,673	1	1
20. Reuss-Gera	92,375	1	1
21. Schwarzburg-Rudolstadt	76,676	1	1
22. Schwarzburg Sondershausen	67,480	1	1
23. Lübeck	56,912	1	1
24. Waldeck	54,743	1	1
25. Reuss-Greiz	46,985	1	1
26. Schaumburg-Lippe	33,133	1	1
Total	42,727,360	58	397

The federal council is presided over by the chancellor of the empire (Reichskanzler). Imperial measures, after passing the federal council and the reichstag, must obtain the sanction of the emperor in order to become law, and must be countersigned, when promulgated, by the chancellor of the empire. All members of the federal council are entitled to be present at the deliberations of the reichstag. The federal council, acting under the direction of the chancellor of the empire, is also a supreme administrative and consultative board, and as such it has nine standing committees, viz.:—for army and fortresses; for naval purposes; for tariffs, excise, and taxes; for trade and commerce; for railways, posts, and telegraphs; for civil and criminal law; for financial accounts; for foreign affairs; and for Alsace-Lorraine. Each committee includes representatives of at least four states of the empire.

For the several branches of administration a considerable number of imperial offices have been gradually created. All of them, however, either are under the immediate authority of the chancellor of the empire, or are separately managed under his responsibility. The most important are the chancery office, the foreign office, and the general post and telegraph office. But the heads of these do not form a cabinet.

By the electoral law of 31st May 1869 every German of twenty-one years of age is entitled to be an elector, and every one who has completed his twenty-fifth year, and has resided for a year in one of the federal states, is eligible for election. The deputies are unsalaried, but during the session they have the right of travelling free by rail. The following table shows the political composition of the reichstag after the four elections from 1871 to 1878:—

Parties.	1871.	1874.	1877.	1878.
Conservatives	50	21	40	61
Deutsche Reichs-partei (Liberal-Conservatives)	38	31	38	51
National Liberals	116	150	126	111
Fortschritts-partei (Progressists)	44	49	33	25
Social Democrats	2	9	12	9
Centrum (Clerical)	57	94	96	99
Poles	13	13	14	14
Other parties	62	30	38	27
Total	382	397	397	397

All the German states are constitutional, except Alsace-Lorraine and the two grand-duchies of Mecklenburg. The six larger states have adopted the two-chamber system, but in the composition of the houses great differences are found. The following table gives analyses of the membership for the sessions of 1878. As regards the lower house, 60,000 inhabitants elect one deputy in Prussia, 33,000 in Bavaria, 35,000 in Saxony, 20,000 in Würtemberg, 24,000 in Baden, 18,000 in Hesse.

	Prussia.	Bavaria.	Saxony.	Würtemberg.	Baden.	Hesse.
Members of Upper Houses.						
Royal princes of age, heads of the mediatized princely houses, &c.	64	53	7	36	10	22
Higher clergy, Catholic and Protestant	4	4	3	...	2	2
Delegates of the nobility and rich landowners	100	...	22	...	8	2
Representatives of university chapters	11	...	3	...	2	1
Burgomasters of large towns	38	...	8	...	...	...
Members nominated by the king or prince for life	85	15	5	9	7	11
Total for Upper Houses	302	72	48	45	29	38
Members of Lower Houses.						
General representation	434	156	...	...	...	...
Delegates of nobility and landowners	...	...	...	13	...	6
Representatives of large towns	...	...	35	7	22	10
Representatives of rural districts	...	...	45	63	41	34
Higher clergy	...	...	...	9	...	...
Universities	...	...	...	1	...	...
Total for Lower Houses	434	156	80	93	63	50

The lesser states also have chambers of representatives numbering from 12 members (in Reuss) to 46 members (in Brunswick), and in most states the different classes, as well as the cities and the rural districts, are separately represented. The free towns have legislative assemblies, numbering from 120 to 200 members. In the so-called landtagen (diets) of Mecklenburg, which have but few privileges, 684 rittergüter (allodial estates) are represented and only 40 towns.

FINANCE.

The most important expenses which the budget of the German empire has annually to meet are those of the central administration, the army and navy, posts and telegraphs, the high court of justice, the foreign office, and some smaller items. For defraying these, all customs receipts and the net amount of certain excise duties are paid into

the imperial treasury (reichskasse). Of the excise duties those on beet-root sugar, salt, and tobacco are common to all the states; but the imperial malt tax is not imposed in Bavaria, Würtemberg, Baden, or Alsace-Lorraine. The three first-named states are likewise exempt from the imperial excise on spirits. Additional receipts are derived from the duty on bill stamps, from posts and telegraphs (excluding Bavaria and Würtemberg), from the railways in Alsace-Lorraine, &c. These receipts are, however, insufficient to meet the expenses of the administration, and for that reason the separate states have to make contributions to the revenues of the empire, varying in proportion to their population. Bavaria, Baden, Würtemberg, and Alsace-Lorraine pay proportionally higher direct contributions, because they impose taxes on their own account on malt and spirits; so also do Bremen and Hamburg, because they are situated outside the customs territory. For the last few years the average contributions have ranged from £3,000,000 to £4,000,000; but they are increasing with the diminution of the funds available from the French war indemnity. These contributions press heavily upon the minor states.

The imperial budget is voted every year by the reichstag. The ordinary and extraordinary expenses for the financial year ending March 31, 1879, were distributed as follows:—

Expenditure, 1878–79.

	Ordinary.	Extraordinary.
Imperial chancery	£226,799	£116,516
Reichstag	6,100	1,500
Foreign office	305,233	26,350
Army	16,125,914	1,368,927
Navy	1,205,526	1,729,008
Invalid fund	1,602,658	...
Military pensions	829,072	...
Civil pensions	48,586	...
Imperial judicature	40,309	1,750
Imperial court of railway affairs	13,637	505,117
Posts and telegraphs	...	664,967
Imperial audit	22,526	500
Interest of debt of the empire	339,075	...
Mintage of imperial coins	...	1,135,000
Expenditure in remission of war-taxes	...	499,766
Total	20,775,438	6,049,402

Revenue, 1878–79.

1. Customs, net		£5,327,524
2. Excise, net		6,951,768
Common duties. Beet-root sugar	£2,368,336	
Common duties. Salt	1,699,009	
Common duties. Tobacco	47,075	
Special duties. Spirits	2,040,070	
Special duties. Malt	797,278	
3. Contributions by territories outside the Zollverein		237,050
4. Stamps		332,655
5. Posts and telegraphs (gross revenue £6,443,000), net		764,420
6. Railways in Alsace-Lorraine (gross £1,908,600), net		567,800
7. Imperial printing-office, net		8,716
8. Imperial bank (share of profits)		100,500
9. Various revenues		381,509
10. Invalid fund		1,602,658
11. Interest of imperial funds		366,210
Total direct revenue		16,640,810
Extraordinary supply (loans, various funds)		5,826 753
Contributions of states to revenue		4,357,276
Total revenue to cover expenditure		26,824,840

The direct contributions of the principal states of the empire to the revenue for 1878–79 were as follows:—

Prussia	£2,074,730	Saxony	£228,786
Bavaria	984,137	Alsace-Lorraine	103,020
Würtemberg	340,330	Hesse	71,125
Baden	241,828	Mecklenburg	40,602

Customs Revenue.—The revenue from the customs duties has increased but little since 1872. In that year it was £5,534,000, and in 1873, £6,131,000; but in 1877–78 it was only £5,768,000. No export duties have been raised in Germany for many years. On the other hand, all imported goods were taxed till 1865, with very few exceptions. Since then free trade has been more in favour, and a considerable reduction has taken place in the number of taxed articles. There are still, however, according to the official lists, about 148 articles on which custom duties are levied under 43 divisions. Raw materials are duty free. Four-fifths of the receipts (£4,323,000) are derived from articles of consumption, coffee being the principal item, after which come tobacco, wine, spirits, &c. The subjoined table shows the customs receipts, in round numbers, from the following items in 1878:—

Coffee	£1,838,000	Herrings	£108,000
Tobacco	821,000	Pork	103,000
Wine and spirits	517,000	Sugar and molasses	101,000
Salt	259,000	Rice	83,000
Fruit	258,000	Miscellaneous	235,000

The preceding table shows great differences when compared with the corresponding list for Britain. The consumption of coffee is considerably larger,—Germany having imported 2,128,000 cwts. in 1876, Great Britain only 1,361,000. The duty is at the same time much higher than in England, where the revenue from coffee was only £200,000. On the other hand, tea yields only £36,000 duty in Germany, but in England £3,700,000; wine and spirits in Germany £517,000, in England £7,500,000; tobacco, in Germany £821,000, in England £7,800,000.

The German customs tariff serves as a protective duty for several industrial products, although in general a free-trade policy has prevailed in Germany during the last ten years. In 1873 the duties on iron were abolished; still its importation, owing to the stagnation of trade, has not increased. The following is a statement of the produce of the duties on specific manufactured articles in 1878:—

Textile fabrics	£604,000	Furniture, &c.	£23,000
Glass and earthenwares	50,000	Copper-wares	16,000
Oil	147,000	Iron-wares	10,000
Leather and leather-wares	62,000	Paper	12,500

In 1879, however, Germany has suddenly returned to an extreme protective system. The present import duties are much increased, and duties are imposed on many articles hitherto duty free. The Government hopes to make a gross revenue of about £8.000.000 by the new customs.

Excise.—The excise duties on articles of consumption have for the most part been considerably increased since 1872, especially the duty on sugar. The tax on tobacco is, however, still trifling (in 1877, £47,000). Bavaria, Würtemberg, and Baden are exempt from the duties both on spirits and on malt, Alsace-Lorraine from that on spirits.

Receipts from Excise Duties.

	Beetroot Sugar.	Spirits	alt.	Malt
	£	£	£	£
1872	1.796.000	1.631.600	1.644.000	601.000
1874	2.578.000	1.992.000	1.704.000	766.000
1877–78	3.274.000	2.632.000	1.788.000	922.000

Funds of the Empire.—The extraordinary funds, from which very large sums appear annually in the budget, were created after the French war. Part of the indemnity was invested for fixed purposes. The largest of these investments served for paying the pensions of the invalided, and amounted originally to £28,000,000. Every year not only the interest, but also part of the capital of this fund is expended in paying these pensions. Another fund, of about £5,200,000, serves for the construction and armament of fortresses; a third for building new houses of parliament; a fourth for the construction of railways in Alsace-Lorraine. Further, the empire has put aside £6,000,000 as a Reichs-Kriegs-Schatz, or imperial war reserve fund, which is not laid out at interest, but exists in coined gold and bullion at Spandau. The railways in Alsace-Lorraine are also the property of the empire,—France having paid an allowance