

cate the relation of complete political equality established between the two great sections of what is popularly known as the Austrian empire. Each has its own parliament,—in Austria called the *Reichsrath* or Imperial Council, and in Hungary the *Reichstag* or Imperial Diet; each its own ministers, budget, and other administrative machinery; and the transactions between the two countries not unfrequently show like the transactions between two independent powers. The same person is monarch over both, and the united army is under his command, but there practically the unification ceases. Russia is an hereditary monarchy, nominally governed by the absolute will of the emperor or czar, but really by this in combination with a system of four great councils. Finland still retains its separate parliament, instituted in 1772, and supplemented by an imperial senate under the presidency of a governor-general. Switzerland is a confederation of twenty-two states, with a republican government. The supreme legislative power is in the hands of the federal assembly, which is composed of a national council or *Nationalrath*, and a council of states or *Ständerath*,—the members of the former being chosen by the people of Switzerland in general, and the members of the latter by the people of the individual cantons. The executive power is entrusted to a federal council, and the highest judicial authority to a federal tribunal, consisting respectively of seven and eleven members, nominated for three and six years by the federal assembly. Sweden and Norway are two kingdoms under one king, with separate government, constitution, and laws. In Sweden the legislative power is mainly in the hands of the diet, which consists of two elective chambers, while the executive is in the hands of the king and a council of state. The constitution of Norway is rather more democratic: the full legislative power belongs to the *Storting*, and the king has no right of veto if the same bill passes three times. The common affairs of the two countries are decided in a council of state consisting of representatives of each.

Such are the most abnormal political arrangements in Europe. Britain, Belgium, Denmark, Italy, the Netherlands, Portugal, Spain, Roumania, Serbia, are hereditary monarchies, with a parliament of two chambers and a responsible ministry. Greece differs in as far as it has only one chamber. Montenegro is an hereditary monarchy, with a senate; Monaco an hereditary principality, with a council of state; and Andorra and San Marino are both republics, with a general council.

It may be safely affirmed that the population of Europe has been steadily increasing since the time of the great Revolution, though it is impossible to ascertain exactly the average rate. The number in 1787 is said to have been 144,000,000; at the peace of 1815, 180,000,000; in 1833, according to Balbi, 227,000,000; in 1854, 253,778,850; and in 1874, according to Behm and Wagner, 309,178,300. If the earlier estimates, which are little better than guesses, even approximate to the truth, we would have in 59 years an average annual increase of 1,850,000. In England and Prussia rather more than one per cent. of increase takes place every year, while in France during the greater part of the century the gain has been considerably less, and in exceptional years there has even been a decrease. If then we adopt one per cent. as the mean for Europe, the 180,000,000 people in Europe ought, in 1874, to be represented by 323,769,000. Two causes have greatly diminished the growth—war and emigration. In the Crimean war the direct loss was 386,000 soldiers; that of the French army in Italy was 10,173; and that of the German army in 1866 between 10,000 and 11,000. In the war of 1871–72 the victors lost 45,000 and the conquered a still greater number. The total loss since 1855 cannot be less than a million at the very least. Of the extent to which emigration from

Europe has gone on during the present century every one has some idea; the immense territory occupied by people of European descent speaks for itself. Since 1820, Germany has contributed about two million inhabitants to the United States alone; since 1815, Great Britain and Ireland have seen no less than from eight to nine millions of their populations leave their shores for ever. The drain on other countries, however, has been much less,—France, for example, counting her loss by emigration in the ten years from 1849 to 1858 as 200,000, and Austria her loss from 1850 to 1868 at no more than 58,000.

The general rule that, other conditions being equal, the population decreases with the elevation of the country, holds especially true of Europe. None of its larger cities lie far above the sea-level. The highest point of permanent human occupation is the hospice of St Bernard—at an altitude of 2472 metres, or 8108 feet; and the highest village, St Veron la Ville, in the neighbourhood of Briançon, has an altitude of 2009 metres, or 6589 feet. There is a little hamlet of German immigrants called Juf, 108 feet higher, in the Swiss valley of the Avers, a tributary of the Rhine. Chaux de Fonds, a town of nearly 20,000 inhabitants in the Jura, stands at an altitude of 1000 metres, or 3280 feet, and the average elevation of the Engadine, with its numerous villages, is about 6000 feet. The highest inhabited spot in the Dovre-Fjeld is said to be Hjerkin, at 3152 feet above the sea; in the Grampians Corrouer (Inverness-shire) at 1738, in the Harz the Brockenhaus at 3739, and in the Pyrenees Mont Louis at 5208.¹

The districts of densest population, or nearly 400 to the square mile, are the lower valley of the Thames, the neighbourhood of Newcastle, and the area which includes Liverpool, Birmingham, Sheffield, and Leeds, in England, the district between Boulogne and Liège, the neighbourhood of Cologne and Elberfeld-Barmen, the valley of the Rhine for some distance above the junction of the Maine, part of the valley of the Neckar, the country to the south of Leipsic, the vicinity of Prague, a large portion of the valley of the Po, especially round about Milan, the neighbourhood of Naples, and a little district round about Oporto. Most of these districts of densest population are surrounded by areas in which the ratio varies from 280 to 380 inhabitants per square mile. In France the only districts approaching the higher figure are the vicinity of Paris and of Lyons; and in Spain the only spot reaching the lower is San Sebastian. Round about Barcelona and on the coast between Cartagena and the mouth of the Jucar there are from 190 to 240 per square mile. In no part of the Russian territory does the ratio rise higher than 140, and most of it varies from 25 to 95. The same low figures are applicable to the whole Scandinavian peninsula, with the exception of the most southern part of Sweden, which, with eastern Denmark, attains a ratio of 150 per square mile.² In a large part of Norway indeed, as well as in both the north and the south-east of Russia, the ratio is not more than from 3 to 5. The only other portions of the globe which reach the highest European density are the valley of the Ganges, part of the Chinese empire, and possibly some parts of central Africa.

The numerical relation between the sexes is different in different countries as well as in the differently constituted portions of the same national community. The most prominent causes that interfere with the equilibrium are the greater destruction of men in time of war, and the greater removal of men by emigration. The following table gives the relations in the principal countries:—

¹ Cf Berghaus, "Höhentafel von 100 Gebirgsgruppen aus allen Erdtheilen," in Behm's *Geogr. Jahrbuch*, 1874.
² See Behm and Wagner's map, "Dichtigkeit der Bevölkerung in Europa," in Petermann's *Mittheil.*, Ergänzungsheft Num. 35, 1874.

	Males.	Females.	Excess or Defect of Females.
Russia, 1867.....	34,210,210	35,154,331	+ 944,121
German Empire, 1871.....	20,154,109	20,906,737	+ 752,628
Prussia, 1871.....	12,169,274	12,523,807	+ 354,533
Bavaria, 1871.....	2,368,553	2,494,892	+ 126,339
Saxony, 1871.....	1,248,799	1,307,445	+ 58,646
Württemberg, 1871.....	876,164	942,375	+ 66,211
Baden, 1871.....	712,551	749,011	+ 36,460
Hesse, 1871.....	421,349	431,045	+ 9,696
Mecklenburg, 1871.....	319,096	335,783	+ 16,687
Hanse Towns, 1871.....	249,685	263,849	+ 14,164
Oldenburg, 1871.....	155,336	159,123	+ 3,787
Brunswick, 1871.....	155,240	156,830	+ 1,590
Anhalt, 1871.....	103,579	99,559	- 4,020
Lippe states } Waldeck, and } Pyrmont, }	96,927	102,491	+ 5,564
France, 1872.....	17,982,511	18,120,410	+ 137,899
Austria-Hungary, 1869.....	17,737,175	18,167,260	+ 430,085
Austrian portion.....	9,991,487	10,403,493	+ 412,006
Hungarian division.....	7,745,688	7,763,767	+ 18,079
Great Britain, 1871.....	15,584,132	16,261,247	+ 677,115
Italy, 1871.....	13,472,262	13,328,892	- 143,370
Spain, 1871.....	8,324,000	8,475,000	+ 151,000
Belgium, 1866.....	2,419,639	2,408,194	- 11,445
Roumania, 1860.....	2,276,558	2,148,403	- 128,155
Portugal, 1864.....	2,005,540	2,132,370	+ 126,830
Sweden, 1870.....	2,016,653	2,151,872	+ 135,219
Netherlands, 1869.....	1,764,118	1,815,411	+ 51,293
Switzerland, 1870.....	1,304,814	1,304,833	- 19
Denmark, 1870.....	918,788	945,708	+ 26,920
Finland, 1865.....	878,537	923,711	+ 45,174
Norway, 1865.....	835,947	865,809	+ 29,862
Greece, 1870.....	754,176	703,718	- 50,458
Servia, 1866.....	626,651	589,444	- 37,207
Luxembourg, 1871.....	98,245	99,233	+ 1,038

Portugal and Greece represent the two extremes—the former having far above the normal number of females, or 1088 to every 1000 males, and the latter far above the normal of males, or nearly 1072 to every 1000 females. The following table gives the order of the various countries:—

	Females to 1000 Males.		Females to 1000 Males.
Portugal.....	1088	Denmark.....	1030
Württemberg.....	1076	Prussia.....	1029
Sweden.....	1067	Russia.....	1028
Lippe states.....	1057	Oldenburg.....	1027
Hanse Towns.....	1056	Austria-Hungary.....	1024
Bavaria.....	1053	Hesse.....	1022
Mecklenburg.....	1052	Spain.....	1018
Baden.....	1052	Luxembourg.....	1011
Finland.....	1051	France.....	1008
Saxony.....	1047	Brunswick.....	1007
Switzerland.....	1046	Hungarian lands.....	1002
Great Britain.....	1043	Belgium.....	995
Austrian lands.....	1041	Italy.....	989
German empire.....	1037	Roumania.....	944
Anhalt.....	1037	Servia.....	940
Norway.....	1036	Greece.....	933
Netherlands.....	1030		

For Russia proper the census of 1858 gave 33,655,824 males to 35,275,904 females, or 1000 to 1048.

During the present century the industrial development of the more advanced countries has led to a remarkable aggregation of the people into cities, and facilities of travel have in many cases caused a large part of the city population to take up their residence in suburbs more or less separate from the central nucleus. In the following list of the towns and cities in Europe with more than 100,000 inhabitants it is noticeable that no fewer than twenty-one belong to Britain, and that nine of these are among the thirty, most of which are or have been political capitals, whose inhabitants exceed 200,000.

1. London.....	(1874), 3,400,700	10. Manchester.....	(1874), 488,407
2. Paris.....	(1872), 1,851,792	11. Naples.....	(1871), 448,325
3. Vienna.....	(1873), 970,000	12. Birmingham.....	(1874), 360,892
4. Berlin.....	(1874), 920,000	13. Brussels.....	(1874), 345,017
5. St Petersburg.....	(1871), 691,093	14. Madrid.....	(1870), 332,024
6. Moscow.....	(1871), 611,974	15. Lyons.....	(1872), 322,417
7. Constantinople.....	(1874), 600,000	16. Dublin.....	(1874), 314,566
8. Liverpool.....	(1874), 510,640	17. Marseilles.....	(1872), 312,864
9. Glasgow.....	(1874), 508,109	18. Amsterdam.....	(1873), 281,944

19. Warsaw.....	(1874), 279,502	48. Stoke-upon-Trent.....	(1871), 130,956
20. Leeds.....	(1874), 278,798	49. Genoa.....	(1871), 130,269
21. Budapest.....	(1869), 270,476	50. Cologne.....	(1871), 129,233
22. Milan.....	(1871), 261,985	51. Venice.....	(1871), 128,901
23. Sheffield.....	(1874), 261,029	52. Ghent.....	(1874), 128,424
24. Rome.....	(1871), 244,484	53. Rotterdam.....	(1872), 125,893
25. Hamburg.....	(1871), 240,251	54. Toulouse.....	(1872), 124,852
26. Lisbon.....	(1864), 219,398	55. Portsmouth.....	(1874), 120,436
27. Palermo.....	(1871), 219,318	56. Dundee.....	(1871), 119,141
28. Turin.....	(1871), 212,644	57. Nantes.....	(1872), 118,517
29. Edinburgh.....	(1874), 211,691	58. Seville.....	(1860), 118,298
30. Breslau.....	(1871), 207,997	59. Bologna.....	(1871), 115,557
31. Copenhagen.....	(1874), 196,000	60. Magdeburg.....	(1871), 114,509
32. Bordeaux.....	(1872), 194,065	61. Liège.....	(1874), 113,774
33. Barcelona.....	(1860), 189,948	62. Oldham.....	(1871), 113,100
34. Prague.....	(1869), 186,479	63. Königsberg.....	(1871), 112,492
35. Bristol.....	(1871), 182,552	64. Messina.....	(1871), 111,544
36. Dresden.....	(1871), 177,089	65. Saint Etienne.....	(1872), 110,814
37. Belfast.....	(1871), 174,412	66. Brighton.....	(1874), 109,319
38. Munich.....	(1871), 169,693	67. Valencia.....	(1860), 107,593
39. Florence.....	(1871), 167,093	68. Leipsic.....	(1872), 106,928
40. Bradford.....	(1871), 163,066	69. Leicester.....	(1874), 106,292
41. Odessa.....	(1873), 162,814	70. Sunderland.....	(1874), 104,378
42. Lille.....	(1872), 158,117	71. Hanover.....	(1871), 104,243
43. Stockholm.....	(1873), 147,249	72. Kisheneff.....	(1867), 103,398
44. Antwerp.....	(1874), 141,910	73. Rouen.....	(1873), 102,479
45. Bucharest.....	(1860), 141,754	74. Riga.....	(1874), 102,043
46. Newcastle-on-Tyne.....	(1874), 135,437	75. Adrianople.....	(1874), 100,000
47. Hull.....	(1874), 130,996		

There are nine with 90,000 or upwards—Leghorn, the Hague, Malaga, Stuttgart, Frankfort-on-the-Maine, Jassy in Roumania, Saratoff, Le Valette in Malta, and Saloniki or Thessalonica; sixteen have more than 80,000—Oporto, Dantzic, Aberdeen, Murcia, Lemberg, Le Havre, Nottingham, Strasburg, Preston, Catania, Nuremberg, Bremen, Bolton, Gratz, Norwich, and Christiania; eighteen lie between 80,000 and 70,000—Wilna, Kieff, Kazan, Cork, Blackburn, Stettin, Roubaix, Barmen, Aix-la-Chapelle, Altona, Brünn, Ferrara, Rheims, Cadix, Elberfeld, Trieste, Huddersfield, and Szegedin; twenty-one are upwards of 60,000—Düsseldorf, Toulon, Plymouth, Wolverhampton, Chemnitz, Lucca, Geneva, Saragossa, Granada, Verona, Brest, Padua, Halifax, Devonport, Amiens, Rochdale, Utrecht, Nismes, Versailles, Gothenburg, Nikolseiff; thirty-six between 50,000 and 60,000—Greenock, Brunswick, Montpellier, Tula, Krefeld, Alessandria, Swansea, Zurich, Modena, Posen, Maria-Theresiopol, Croydon, Limoges, Carthage, Mainz, Southampton, Palma, Stockport, Mühlhausen, Nancy, Halle, Berdicheff, Bath, Nice, Jerez de la Frontera, Rennes, Merthyr Tydvil, Essen, Metz, Augsburg, Reggio, Bari, Pisa, Serraveio, Gallipoli, Philippopol.

It must of course be kept in mind that lists like the above can only present an approximate view of the facts,—first, because the censuses or estimates of the various places are not strictly contemporaneous and do not proceed on the same methods; and, secondly, because the areas to which they apply are determined by different considerations in different cases. It is not unfrequently hard to say what ought to be accepted as the limits between town and not-town,—whether ancient villages and hamlets to which the city has grown outwards, or the modern suburbs which it has built at short distances, should be included or excluded. With those cities which have kept the characteristics of the walled towns of the mediæval period the matter is easily settled, but in most cases the modern city has either got rid of its walls and turned their site into promenades or boulevards, or retaining them as an interesting historical monument, has overflowed their limits in all available directions. In some very modern instances, such as Elberfeld-Barmen in Prussia, clusters of dwelling-houses and industrial establishments have sprung up sporadically along a convenient valley; and while there are large gaps in what we may call the area of architectural occupation, the various groups have a complete community of social and commercial life. Municipal boundaries give us but little assistance, for these are modified not only by the different municipal systems of the different countries, but also by all kinds of local conveniences, traditions, and rivalries.

An enormous increase has taken place since the French Revolution, and indeed within a much shorter period, in the size of the military establishments throughout Europe. The rivalries and jealousies of the various nations have led them to vie with each other in the strength of their armies and navies; and as it is impossible to withdraw more than a certain number of men from productive labour to non-productive drill and display, a strange return, under greatly modified conditions, has been made to that earlier state of society in which the army was the whole mass of the male population capable of bearing arms. Universal obligation or liability to personal service as a soldier is recognized by Germany, Austria, Hungary, Greece, Italy, France, Spain, Portugal, Denmark, Switzerland, and Turkey. In Belgium the army is recruited by conscription, in Russia mainly by conscription, and in the Netherlands and in Norway and Sweden partly by conscription and partly by voluntary

enlistment. According to the Swiss constitution, there can be no standing army within the federal territory. The following table, quoted by Kolb from a paper by Freiherr von Fircks in the *Journal* of the Prussian statistical bureau, gives an estimate of the military forces of the principal states in 1859 and 1874:—

	1859.		1874.	
	Total Army.	Available for Offence.	Total Army.	Available for Offence.
Germany	836,800	483,700	1,261,160	710,130
Austria-Hungary	634,400	443,800	856,980	452,450
Russia (European).....	1,134,200	604,100	1,401,510	665,890
France	640,500	438,000	977,600	525,700
Italy	317,650	156,450	605,200	322,000
Belgium	80,250	53,800	93,590	59,140
Netherlands	58,550	42,200	64,320	32,430
Great Britain	245,800	77,300	478,820	71,860
Denmark	57,550	38,450	48,700	30,500
Sweden and Norway.....	134,900	46,300	204,510	54,910
Total	4,230,550	2,459,750	6,110,690	3,012,560

Thus the only nation which had decreased its force during that period was Denmark; France, instead of having one soldier to every 58 of the population, had one to every 37; Great Britain, instead of one to 119, had one to 71. Since 1874 matters have not greatly changed. According to the *Almanac de Gotha* for 1878, the several states rank as follows, taken in the order of the strength of their forces in time of peace:—

Russia	787,998	Belgium	45,970
France	494,105	Sweden	36,495
Germany	418,821	Denmark	35,699
Austria-Hungary	296,218	Portugal	34,203
Great Britain	233,872	Montenegro	30,000
Italy	220,690	Roumania	17,169
Turkey	157,667	Norway	12,755
Switzerland	106,102	Greece	12,188
Spain	100,000	Servia	4,222
Netherlands	52,930	Luxembourg	634

The total amounts to upwards of 3,000,000, or very nearly the population of Scotland or of the largest city in the world: in other words it forms one per cent. of the whole population of the Continent, more than one in fifty of the male population, or probably about one in fifteen of the adult male population. The expense incurred is enormous,—the average sum paid by each individual for the defence of his country being, according to the *Almanac de Gotha*—

France.		France.	
1. France	24.86	11. Denmark	6.58
2. England	21.45	12. Greece	5.81
3. Germany	10.10	13. Norway	5.67
4. Spain	8.81	14. Switzerland	4.51
5. Italy	8.63	15. Turkey	3.88
6. Belgium	8.23	16. Roumania	3.65
7. Portugal	7.58	17. Servia	3.21
8. Austria-Hungary	7.35	18. Luxembourg	2.46
9. Russia	7.26	19. Montenegro	2.14
10. Sweden	6.93	20. Netherlands	2.06

The maritime nations, almost without exception, maintain a considerable navy for warlike purposes; and the greater powers have lavished their wealth on experiment after experiment in the endless task of mutual competition for the most destructive and indestructible fleet. In 1877-78 Britain had 58 ironclads (of which 47 are described as efficient). France 58, Germany 20, Russia 29, Austria-Hungary 14, Italy 16, Turkey 15 large and 18 small, Spain 10, and the Netherlands 17. The difference of size and structure of the individual vessels makes the fleets of the several countries practically incommensurable in a general survey; and without the actual test of conflict it would be hard to say which of the approximately equal equipments is the most powerful. An American official investigator

¹ King, *The War Ships of Europe*.

in 1877 decided in favour of Britain, which not only manufactures her own armoured ships, but has constructed a large number of vessels for Russia, Turkey, Spain, Holland, Italy, Denmark, Greece, and Portugal.

A most important result of the military expenses of the different countries has been the extraordinary development of national debts. In 1848 the total for all the European states was about £1,700,000,000; by 1873 it had increased to £4,680,000,000, or at the rate of £119,000,000 annually. Each successive war—the Crimean, the French-Austrian, the Prussian-Austrian, and the French-German—has added to the load. Mr Robert Dudley Baxter, in a paper in the *Journal of the Statistical Society*, 1875, arranged the countries in groups according to the rate of interest they paid on the market price. The states of low interest, paying from 3 to 4 per cent., were the United Kingdom, Denmark, Holland, Belgium, and Germany; the states of moderate interest, 5 to 6½ per cent., Russia and France; the states of high interest, 6½ to 10 per cent., Portugal, Hungary and Austria, Italy, and Turkey; while Spain, paying upwards of 16 per cent., ranked as a state of excessive interest. According to a table furnished by Dr Kolb, if the several national debts were equally distributed over the respective populations every inhabitant of Portugal would have to pay about £27, every inhabitant of France about £25, 4s., of Great Britain £24, 15s., of Spain £22, 10s., of the Netherlands £18, 18s., of Italy £16, 16s., of Turkey £13, of Austria-Hungary £10, of Belgium £5, 17s., and of Russia £5, 5s. The country which ranks lowest is Switzerland, which has no standing army,—the average for every man being there only about 8s. or 9s. Were it not for the enormous development of European commerce such a state of matters could not be supported, and even as it is several countries have been practically, if not formally, bankrupt during the present century. The following table gives the annual revenues of the different countries:—

	Income.	Expenditure.
France (1877).....	£106,885,620	£106,691,868
Russia (1877).....	81,539,714	81,252,857
Great Britain (1877).....	78,565,000	78,125,000
Italy (1877).....	59,564,396	56,915,096
Austria (1877).....	37,663,781	40,556,947
Prussia (1878).....	32,581,920	32,581,920
Spain (1877).....	29,433,000	29,430,000
Hungary (1877).....	23,341,042	21,447,457
Belgium (1877).....	10,161,830	9,857,700
Netherlands (1876).....	8,642,556	9,539,139
Portugal (1877).....	5,346,661	5,510,200
Sweden (1878).....	4,782,778	4,782,778
Roumania (1876).....	3,915,776	3,915,776
Denmark (1877-8).....	2,734,189	2,283,443
Norway (1877-8).....	2,235,000	2,235,000
Switzerland (1876).....	1,659,496	1,704,880
Greece (1877).....	1,401,678	1,466,760

The commerce of Europe may be said to have had its beginning when the people of the early stone period bartered on from horde to horde the flint or jade best fitted for their weapons, and there is reason to believe that far back in prehistoric times the amber of the Baltic found its way across the Alps to add a new element to Italian decoration. It was not till the Roman period, however, that the great lines of traffic were distinctly laid; Rome was the first European city whose necessities and desires formed as it were a great centre of combustion requiring a continual current from all directions to feed the ever-brightening flame. Since the 10th century, when the northern nations had finally settled in their present seats, the commercial activity of the continent has increased from generation to generation, and in none has it made a greater advance than in the present. Europe has now a hundred Romes; and

the mightiest of them is to the Rome that then was as the world of the 19th century is to the "world" of the first. Along with increased necessities and more varied desires have been developed greater possibilities of supply and satisfaction; and the commerce of Europe has become the commerce of the globe.

The great indispensables are food and clothing, and in regard to neither of these is Europe self-sufficing. Austria, Russia, Roumania, and Denmark are the only countries that grow a sufficient quantity of the cereals to maintain a regular export, and even these are indebted to foreign supply for much of their ordinary food materials. Russia annually produces about 644,000,000 bushels of grain, and of this she can spare upwards of 120,000,000. The chief corn-growing districts are New Russia and Bessarabia, and the principal ports of outlet are Odessa, Taganrog, Rostoff, Mariupol, and Berdiansk. England and France purchase most of the wheat, and Germany most of the rye. Austria-Hungary produces about 400,000,000 bushels; but it is only in favourable years that the export exceeds the import. Roumania has an average harvest of about 89,000,000 bushels, and exports to the value of about £4,500,000. Denmark counts about 79,000,000 bushels of produce, and has a surplus of 65,000,000. England and Ireland derived in 1874 about 63 per cent. of its foreign wheat from the United States and Canada, 11 per cent. from Russia, 8 per cent. from Germany, and 4 per cent. from Chili. The value of the whole import amounted to upwards of £51,000,000; and it is calculated that on the average England requires the produce of about 4,500,000 acres of foreign wheat fields. The average harvest in France yields about 658,000,000 bushels; and in favourable years she has a small export. Germany produces about 715,000,000, but requires at least £80,000,000 worth additional. Belgium's medium harvest reaches 64,000,000 bushels, but it is never sufficient for the population; in 1873 they paid upwards of £64,000,000 for foreign supplies. The Netherlands produce about 31,000,000, and purchase to the extent of £3,000,000. The Italian harvest furnishes about 282,000,000 bushels, besides 27,000,000 bushels of rice, but the import exceeds the export sometimes to a very high value. In favourable years Sweden and Norway yield 82,000,000 bushels: the former country exports oats and barley, and imports rye, wheat, and meal; the latter, with a surplus of oats, requires a large foreign supply of all other grains. The Spanish produce varies from 27 to 200 millions of bushels, but about £2,300,000 worth have to be imported. Portugal, with a mean harvest of 30,000,000 bushels, purchases to the amount of £250,000. For the whole of the continent the total harvest may be stated at about 4,893,000,000 bushels.

Europe finds greater difficulty in satisfying its demands for animal food. The average consumption per head of population is rising in all the principal countries; and though the modern stock-raiser can produce a greater quantity of flesh per ox or sheep, it is in several districts found more profitable to turn the ground to other uses, and sheep and cattle farming are consequently on the decline. There has thus grown up a great import trade, not only of living animals, but, within the last twenty years, of preserved meat, the principal sources being North and South America and Australia. The trade is yet in its infancy, and trustworthy statistics are not readily accessible.

An ever-growing addition to the food supplies of Europe is made in the form of what are called colonial wares—sugar, tea, coffee, &c. Though the native production of best sugar amounts on an average to 22 or 23 million cwt. per annum, that would only furnish about 7 lb on an average to each inhabitant; while as far back as 1866, according to Robert Burger's calculation, the average demand

was more than 11 lb per head, and in Britain had reached about 42 lb. The consumption, moreover, has since then increased enormously—Great Britain having advanced to 62 lb per head, France from 13 lb to 19 lb, and Germany from 10 lb to 15 lb. Almost the same might be said of tea, in the consumption of which Britain again stands first, requiring about 4 lb a head per annum; and of coffee, of which Belgium requires the greatest average supply, or about 9 lb a head. And to all this must be added the multitudinous articles of consumption from far and near that give such a cosmopolitan air even to an ordinary grocer's shop. For that most universal of all clothing materials, cotton, Europe is almost entirely indebted to other parts of the world; and though it grows a large quantity of wool and no inconsiderable amount of silk, its demand for both far exceeds its domestic supply. So much, however, of what it imports is again exported in the form of manufactured goods, that it is almost impossible to obtain a correct estimate of its true consumption. For details on these enormous trades the reader may consult the separate articles. The European production of wool was reckoned in 1871 at upwards of 562,370,000 lb,—England contributing 159,000,000, France 91,108,000, and Russia 90,760,000 to the total. The production of silk is about 12,000,000 lb.

Some idea of the relative position of the separate countries in the general traffic of the world may be obtained from the following table of the strength of the commercial marine:—¹

	Vessels of all kinds.	Steamers.	Tons.	Men.
Great Britain	22,200	2,557	5,533,000	210,000
Germany	5,082	219	1,285,000	40,000
France	5,115	316	1,141,000	35,000
Italy	4,808	102	1,080,000	50,000
Norway	6,990	118	1,020,000	48,000
Holland	2,000	52	491,000	16,000
Spain	4,500	150	392,000	20,000
Greece	2,100	7	392,000	20,000
Russia	3,160	192	383,000	20,000
Austria	3,000	95	373,000	32,000
Sweden	3,300	390	353,000	32,000
Denmark	2,800	88	186,000	...
Turkey	1,500	10	176,000	6,000
Portugal	800	16	113,000	8,000
Belgium	70	12	30,000	1,400
Approximate totals..	87,100	5,544	15,863,000	550,000

If it were not for the enormous development which has been attained by its manufacturing industries, Europe would have no means of paying for what the other continents can afford to send; it has comparatively few raw materials which it can give in exchange, and so it pays for them with its labour and its skill. The countries which rank as emphatically industrial are Great Britain, France, Saxony, Switzerland, Belgium, Wurtemberg, Prussia, and Alsace-Lorraine. In the manufacture of iron Britain stands at the head of the list, especially for steel, wire, rails, and cast-iron. In the first department its principal rivals are Germany, France, Austria-Hungary, Sweden, and Belgium; in the second Germany, France, Sweden, and Belgium are also exporters, and Austria-Hungary and Italy manufacture for their own markets; and in the third the state of matters is much the same, with the exception that several other countries are also producers in a small way. The manufacture of cast-iron is more widely distributed, forming an important industry not only in most of the countries already named, but also in Italy, Spain, the Netherlands, &c. The same position of supremacy belongs to

¹ See Neumann-Spallart's contributions on the Trade of the World to the several volumes of Behm's *Geographisches Jahrbuch*.