Norway took place only during the summer, but the Germans early tried to establish themselves permanently in our chief commercial town, Bergen, by being allowed to winter there. The Norwegians for a long time strove to prevent this, and even as late as about the year 1300, the number of Germans wintering there does not seem to have been very large. During the latter half of the 14th century, however, and still more in the 15th century, when Norway, from various reasons, was materially as well as politically much weakened, the Hansards gained more and more the upper hand over the Norwegian merchant class, notwithstanding their stubborn and to some extent very bitter resistance. The Hansards (from Lubeck especially), were most domineering in Bergen, where they sometimes committed various acts of violence and aggression against the citizens of the town. The foreigners (especially from Rostock) were also very troublesome to the Norwegian merchants in the principal commercial towns in the eastern part of the country, Tønsberg and Oslo; and at the beginning of the 16th century, when the efforts to put an end to the foreign commercial domination were finally crowned with success, these towns were very much reduced in strength. Bergen, on the other hand, on account of its lively fishing trade, continued for a long time to be the most important commercial town of Scandinavia; and here for generations the Hansards still struggled perseveringly for their commercial supremacy. To a certain extent, they were kept in check by the energetic king CHRISTIAN II at the beginning of the 16th century; and in the years from 1557 to 1560 they were compelled to respect the laws of the country, and ceased to form practically a state within the state; but they continued to keep the greater part of the commerce of Bergen in their hands until the growing supremacy of the Dutch on the sea, and the Thirty Years' War (1618-1648) had weakened them in their own country. The «German factory» in Bergen, however, continued to exist until the middle of the 18th century, although the commerce was more and more transferred to the townspeople.

Even during the period of greatest depression, the Norwegian burgher-class was not entirely annihilated<sup>\*</sup>); and other foreigners

<sup>\*)</sup> With regard to Oslo, a complaint of 1508 states that the number of burghers, which, shortly before the arrival of the men from Rostock (who, in 1447, were unrestrictedly allowed to winter in Oslo and Tonsberg), had been 500 or 600, was now only from 60 to 80.

than the Germans, especially English, Scotch and Dutch, and also the Danes, with whom we were politically connected after 1380, carried on trade with Norway.

The Dutch gave considerable impulse to Norwegian commerce, as they had commenced as early as in the middle of the 15th century to some extent to export timber from the South of Norway. For a couple of centuries the timber was purchased everywhere even in the country districts directly from the peasants. The Norwegians also, to some extent, exported timber in their own vessels. Water saw-mills were established in Norway about the year 1500, but not until half a century later did they acquire any importance for our export; and even as late as about 1875 our timber export to Holland still consisted mostly of rough timber (see page 431).

In the second half of the 16th century, productions and trade generally made a large stride in Western Europe; and the building of both houses and ships caused a great demand for Norwegian timber, not only in Holland, but also in Spain, Portugal and England. The economic conditions of the country itself also improved, and the Norwegian commercial class in many towns gained new life. This was probably largely due to the immigration of foreign elements, which, however, immediately took root here, many of the immigrants marrying into Norwegian families. At Bergen, the largest commercial houses were of foreign origin, and simultaneously with the decline of the Hanseatic factory some of the sons of its members became Norwegian citizens. At the end of the 18th century, even in Bergen, there was only a small minority of merchants who did not feel themselves to be Norwegians.

During the latter part of the 16th century, our own vessels again commenced to take some part, though a relatively small one, in the trade with foreign countries, which during the latter part of the 14th, and almost the whole of the 15th century had been carried on chiefly by foreign ships.

In the course of the 17th century, the commerce and shipping of Norway received a great impulse, although it was to a certain extent seriously hampered by wars and other circumstances. The timber-trade flourished greatly, and came more and more into the hands of the growing Norwegian mercantile class in the towns, although the export was still largely carried on in foreign vessels. By the town privileges of 1662, it was ordered that all export to foreign countries should be from the towns, a rule which had, indeed, been in existence since about the year 1300, but which it had not been possible to observe, especially as regards the timber trade. During the 16th, and the early part of the 17th century, this trade had also called into existence, or helped to develop, a number of new towns, so-called «loading-places» (ladesteder), in the south of Norway, at the mouths of rivers in which timber was floated to the sea. Among these towns were Fredrikshald, Moss, Bragernes (a part of Drammen) and Arendal. The commercial freedom of the «loading-places» was considerably restricted by the above mentioned town privileges; but they retained the right of shipping timber (and importing grain).

The timber export from southern Norway increased from 102 shiploads, measuring about 425,000 cubic feet, in 1528, to 673 shiploads, measuring about 2.5 million cubic feet, in 1560, and to as much as 1650 shiploads, or about 7 million cubic feet, about the year 1620. A considerable export-trade in timber was also carried on from the western part of the country (mostly in Scotch vessels) and from the northern districts. In 1664, the whole timber export is said to have amounted to about 35 million cub feet.

The export of fish was also very considerable, especially from Bergen (cf. table on page 427); and the mining industry, commencing, on a large scale, in the 17th century, also contributed considerably to Norwegian export.

Towards the end of the 17th century no inconsiderable part of the trade of Norway was carried on by her own vessels, even though that export trade which was of the greatest importance to shipping, the timber trade, was still chiefly carried on in foreign vessels. The mercantile marine of Norway towards the end of the 17th century probably amounted to 400 or 500 vessels, with a carrying capacity of about 60,000 tons.

The national commerce and shipping were advanced to quite a considerable extent by various measures taken by the Dano-Norwegian government during the reign of CHRISTIAN V (1670—1699). One of these was the ordinance of 1671, favouring the so-called vessels of defence\*), merchant vessels, that could, if needed, be used as war-ships. The customs too, which were formerly exclu-

\*) A similar provision had also been given 50 years carlier, in 1621.

sively regulated for fiscal purposes, were now also used as a means of directing the course of commerce, shipping and industry.

On the other hand the vigorous development of Norwegian commerce was considerably hampered by the system of privileges obtaining in the 17th century, by which some towns were greatly favoured, sometimes at the expense of other towns, which the government even went so far as to try to suppress in favour of the privileged town, — e.g. by ordering its citizens to remove to the other town —, sometimes at the expense of country districts, for instance, of Finmarken, the northernmost district of the country.

The increases in the customs duties were also felt to be rather heavy, especially the export duty on timber, which was considerably increased at the beginning of the 17th century, and also the old export duty on fish.

The promising commencement of a revival of the national commerce and shipping received a serious blow from the protracted Great Northern War (from 1709 to 1720) in which about one third of the Norwegian mercantile marine was lost.

After 1720, Norway had peace, almost without interruption, for 87 years. During this time our commerce and shipping advanced very considerably, although at first quite slowly. About the year 1750, the Norwegian mercantile marine was again of about the same size as before the great war; commerce, during the years 1750-1760, increased greatly, thanks to the unusually abundant herring-fisheries, which, however, afterwards again decreased; the timber export was large, and the production of copper was considerably increased. The aggregate value of Norwegian exports (at the prices then ruling) was probably about kr. 10,000,000 per annum during the period 1750-1770. The imports probably represented a similar amount, of which 3 or 4 million kroner were represented by cereals, to the quantity of about 2.2 million bushels, chiefly imported from Denmark, that country having had, from 1735 to 1788, with a few interruptions, e.g. during bad years, the monopoly of importing grain to southern Norway, the most populous part of our country.

During the last quarter of the 18th century, and the first few years of the 19th century, the commerce of Norway had reached an extent such as it had probably never before had. During the North American War of Independence (1776-1783), the prices of our export goods were considerably increased, and the neutral

position of our country gave an opportunity for a profitable transit trade, our territory being used for storing purposes. During the European wars caused by the French Revolution, our country also derived great advantages from its neutral position, until we ourselves, in the year 1807, were drawn into the war. During this period several reforms were introduced in our commercial legislation, greatly benefiting the economic condition of the country, e.g. the repeal of the Danish grain monopoly on Norway, the release of the commerce on Finmarken (1787), the decree of 1793 relating to credit storage and a less burdensome customs tarif (1797). At the beginning of the 19th century, however, the bad condition of the state finances necessitated some new imposts which nevertheless were not so heavy as to prevent a further improvement in our commerce, the timber-export to England being especially Our whole timber-export during the years from 1804 large. to 1806, some especially brisk trading years, amounted on an average to 35,000,000 cubic feet, while the grain import during the years 1799 to 1808 amounted on an average to 2.6 million hushels

The last part of the 18th century was a period of growth in Norwegian shipping, sufficient to mark it as an epoch in its development. In 1792 the Norwegian mercantile marine had grown up to 860 vessels with a total of about 110,000 tons' burden. In 1806 our mercantile marine even counted 1,650 vessels with an aggregate burden of about 180,000 tons, some of which, although not very many, properly belonged to foreign countries.

As a consequence of the rapid growth of the Norwegian mercantile marine, trade with our country, towards the end of the 18th century, was carried on in Norwegian vessels to a much greater extent than it had previously been. Whereas even as late as about 1770, most of the timber exported from the chief port of export, Drammen, was shipped in Dutch vessels, during the last few years of the 18th. and the first few years of the 19th century, about one half or more of our timber-export was carried on in Norwegian vessels. A large part of the fish-export about the year 1800 was also carried on in Norwegian vessels.

The flag of the Dano-Norwegian monarchy, the old Danish colours, was well known in most European countries, and might be seen in Asia, America and Africa. During the years 1800 to 1803, the European ports outside the monarchy were visited on an average by 4,072 vessels of about 500,000 tons' burden, carrying that flag. Almost half this tonnage went to the British Isles, chiefly Norwegian vessels carrying timber. The other European countries were also visited by many Norwegian ships, but the vessels visiting foreign continents were chiefly Danish. About 43 % of the total mercantile marine of the Dano-Norwegian monarchy (Schleswig-Holstein included) in the year 1800, were Norwegian.

In the year 1807, the good times came to an abrupt end, for in that year the long war with England broke out. In the years 1808 and 1809, 1813 and 1814 there was also war with Sweden. Commerce and shipping now became very irregular, and many ships and cargoes were lost. During the years 1810—1812, in spite of the war, we had brisk commerce and shipping with England, the so-called clicensed» trade, which, however, did not bring any lasting advantage; and 1813 and 1814 were very bad business years. The situation was still more aggravated by the miserable pecuniary conditions; and the bad crops of 1812, in connection with the English blockade, caused actual famine.

During these hard times, Norway was greatly reduced financially; but they served the purpose of developing and consolidating us as a nation, so that in 1814, when our country was forcibly separated from its connection with Denmark, and handed over to the Swedish king, instead of quietly submitting to this, it was able to establish itself as an independent kingdom with one of the freest constitutions in Europe; and only as such did it enter upon the union with Sweden in which the two independent kingdoms of the Scandinavian peninsula have each. for the last 85 years, at peace with foreign countries, enjoyed on the whole a happy national and economic existence.

The first years of our new constitution, however, economically considered, were very depressed, and it was somewhat long before our commerce and shipping could again recover strength, after the protracted war. Our timber-trade in particular gave bad profits, in some cases even loss, as it was necessary to sell large stocks on nand at any price. The trade with England was greatly reduced on account of the exceedingly high duty levied by that country on timber from all other places than her own colonies. This circumstance contributed not a little to a decrease in our shipping, so that the tonnage of the Norwegian mercantile marine was reduced from 176,000 tons in 1816, to about 130,000 tons in 1826. Our fish-trade was relatively more profitable especially on account of the increasing quantity of winter herring.

After 1823, the timber trade also grew more profitable, prices having risen, and higher freights having given new life to shipping. A general European and American commercial crisis, however, which occurred in 1825, once more caused a depression in Norwegian commerce and shipping for some years, during which several of our large, old-established timber firms, that had survived the earlier crisis, were ruined.

At the beginning of the thirties, a more lasting period of improvement set in, continuing upon the whole, allowing for depressed timber trade in 1840-42, to 1847, while the years from 1847-1849 showed a great depression due, among other things, to the excessively high prices of grain prevailing in 1847, and the irregular conditions of the world's commerce, caused by the revolutionary movements in 1848. In 1850 better times again commenced, and as a summary of the economic development from 1815 to 1850, it may be said that not only were the wounds from the war period (1807-1814) healed, but by the middle of the century our commerce and shipping had attained even a higher stage of development than during the first years of the century, which had been so exceptionally favourable to our economy.

The timber-export about 1840 regained the extent it had enjoyed during the splendid commercial years at the beginning of the century. About one third of our exported timber now went to France, the agricultural population of which required a good quantity of timber for the improvement of their houses. About 22 % of the timber went to England, and as regards quantity, somewhat more to Holland, but less in value, because the exports to that country, as before, chiefly consisted of rough timber. The fish-export in the middle of the century was probably larger than it had ever been before. Since 1818, the heavy duty levied on timber on its export from Norway, has been considerably lowered several times, until in 1893 it was entirely repealed. It was then our last remaining export duty.

The total value of the Norwegian export about 1838 has been calculated at about kr. 19,040,000, of which kr. 6,740,000 are represented by timber, kr. 9,920,000 by fish products, and the rest kr. 2,380,000 by silver, iron, copper, smalt and other articles. In the forties the total value of the exports was calculated to be kr. 26,800,000 (timber kr. 9,200,000, fish products kr. 13,600,000, and other goods kr. 4,000,000).

The value of imports from year to year has probably about equalled the value of the exports with the addition of the increasing income resulting to the nation from shipping (about kr. 6,000,000 in the thirties and about kr. 9,000,000 in the forties).

After 1826 the Norwegian mercantile marine increased without interruption from year to year; in 1835 we had reached about the same tonnage as before the commencement of the war in 1807, namely about 180,000 tons and in 1850, 289,000 tons. In the course of the 20 years from 1831 to 1850, our mercantile marine had been increased by 75 %/0, which corresponds with the average increase of the whole civilised world's aggregate tonnage during this period.

The annual average of the aggregate tonnage of Norwegian vessels leaving foreign ports with cargo, or leaving Norway for foreign ports was.

From 1836 to 1840 565,000 tons, whereof 109,000 tons were carrying goods from one foreign country to another;

From 1846-1850, 810,000 tons, whereof 248,000 tons were carrying goods from one foreign country to another.

Thus it appears that our carrying trade between foreign countries made rapid advance, and among the chief factors contributing to this result was the circumstance that our vessels from 1825 onwards were placed on an equal footing in Sweden with those of that country, and that Great Britain and other countries, on account of the political union established between Norway and Sweden, allowed Norwegian vessels to import Swedish goods.

As regards the foreign shipping on Norway, the number of vessels arriving was increased from 5,413 in 1827 to 8,542 in 1850, and their tonnage from about 400,000 to about 700,000 register tons. In 1827, rather more than 2/3 of this tonnage was represented by Norwegian vessels, and in 1850 about three fourths. From 1838 to 1850 hardly more than one third of the vessels arriving were loaded, but when leaving, most of them carried a cargo.

414

# III. NORWEGIAN COMMERCE AND SHIPPING SINCE 1850.

During the latter half of the century, our commerce and shipping made such progress as it has hardly ever done before in such a short space of time.

This especially applies to *shipping*. From 1850 to 1879, the Norwegian mercantile marine increased from 289,000 to 1,527,000 tons, i.e. more than five times. In 1899 we had, as stated on page 404, a tonnage of 1,558,000 tons, whereof 438,000 tons are represented by steam vessels. These latter have for the most part been acquired during the last 20 years, as our steamship tonnage in 1879 only amounted to 52,000 tons. The first Norwegian steam vessels commenced to run as early as 1827, but as late as 1864, our total fleet of steam vessels amounted to only about 5,000 tons. The aggregate effective carrying power of the Norwegian mercantile marine (considering one steamship ton equal to 3.6 sailing tons) is at present about 2,700,000, tons, that is to say, about nine times as large as in 1850.

The development of Norwegian shipping will also be clearly apparent from the following table of the aggregate tonnage sailing under the Norwegian flag, cleared with cargo from foreign ports or from Norway for foreign ports:

Years on an average						11. 11. j	Tonnage			of reg. tons) of ed with cargo	Norwegia
						ŀF	rom Norwa	y.	From othe		
						j,	for foreign		For	For other	Total
							ports	ŝ	Norway	countries	
- 102 M I											
1846 - 50		(4)	×.				419		143	248	810
1851 - 60	×	100				÷	570		200	530	1,300
186170						2	790		288	1,310	2,388
187180	12						969	1	471	2,794	4,234
188190	e		÷	×	æ		1,316		781	3,558	5,655
1891-95	•		3		•		1,560		1,098	4,292	6,950
1896 - 98						121	1,765		1,166	5,580	8,511

It appears from this table that the Norwegian mercantile marine at present performs about ten times as much work as was done by our ships half a century ago, and that the advance has been greatest with reference to the carrying trade between foreign countries. — Reckoning by the tonnage, about two thirds of the Norwegian vessels leaving port in 1898 were steamships.

The average number of Norwegian vessels cleared with cargo from foreign places, or from Norway for foreign countries (or rather, the number of voyages made by them) from 1851 to 1855 was 10,725, and in 1898 20,200, whereof 11,759 represents the steamships. — If we also take into consideration ballasted vessels, the total number of voyages made by Norwegian ships in the year 1898 will be 30,005, and their aggregate tonnage 13,940,000 tons.

The annual amount of freights earned by our vessels averaged, from 1863 to 1865, kr. 50,000,000 and from 1873 to 1878 kr. 100,000,000. In 1886 and 1887, on account of the unfavourable condition of affairs, it had gone down to kr. 77,000,000, rising again to kr. 120,800,000 in the good year 1889, and falling again to about kr. 93,000,000 between 1893 and 1895. In 1896 and 1897, it again rose to about the same amount as that of the best of the seventies, that is to say, a little above kr. 100,000,000, and in 1898 to kr. 115,000,000, although the carrying activity of the whole fleet since that time had been considerably increased. The reason is that the freight rates now, on account of the technical progress of the shipping industry, are much lower than thery were at that time, although they are higher than they were in 1893– 1895. The *net* income of the country may, perhaps, be estimated at about half the amount of freights, or, at the present time, a litle more.

The shipping trade between Norway and foreign countries in 1898 was more than four times as large as in 1850, the aggregate tonnage entered into Norway having risen from about 700,000 register tons to 3,140,000 register tons. The number of vessels only rose from 8,542 to 14,456, and consequently their average burden rose from 81 to 217 register tons. The share taken in this trade by the Norwegian flag has decreased somewhat, namely from three fourths to two thirds, one great reason of this decrease being that the conversion from sail to steam commenced at a later period with us than with the other most important seafaring nations, and also that still only about half the regular steamship lines between Norway and foreign countries are in Norwegian hands. During the years 1871-75, the annual average tonnage of all the steamships entered was 311,000, whereof only 37 % carried the Norwegian flag; but in 1898 there were 1,974,000, whereof 58 % carried the Norwegian flag. Of the total tonnage entered in 1898, 66 % were Norwegian, 12 % British, 8 % Danish, 7 % Swedish, 4 % German,  $1^{1}/_{2}$  % Russian and Finnish, 1 % Dutch and  $1/_{2}$  % of other nationalities.

Whereas, about the middle of the century, only one third of the tonnage that arrived in Norway, carried cargo, in 1880 about half came with cargo, and in 1898 almost two thirds. The vessels leaving Norwegian ports, now as formerly, are for the most part loaded.

The development of our foreign *commerce* from 1851 to 1898 will appear from the table below, giving the value of imports and exports, and of the aggregate commerce during those years:

		⁵`in_m kroner,								, in mi kroner,	
Years on an average	Imports	Exports	Aggregate commerce	on a	Yes n av		ago		Imports Exports		Aggregate commerce
185155	59,3	43.7	94.0	1881	85		1		158.2	111.8	273.0
1856-60	58,8	47.1	10.5,5	1886-	90	14	4	$\hat{\mathbf{x}}$	165.5	119-1	281.6
1861 - 65	77.1	54.5 .	131.6	1891	95	j.			211.2	132.4	343.6
186670	100.4	73.3	173.7	1896	÷.	12			240.2	147.8	388.0
187175	153.7	106.2	259.9	1897		R.	÷.	20	263.7	167.7	431.4
187680	156.1	103.4	259.5	1898	×.		×	<b>4</b> .5	280.2	159.3	439.5

It appears from this table that the aggregate foreign commerce of Norway since the fifties has been more than quadrupled. Relatively to the population, it has increased from kr. 67 to 206 per inhabitant.

It also appears that the importation has increased to a larger extent than the exportation, especially of late. Here, however, two circumstances are especially worthy of consideration. In the first place, a large part of the great difference between our import

\*) For the imports, the values given are calculated according to the prices prevailing each year, as also the exports since 1866; for exports before 1866, the values have been calculated from the prices prevailing about 1855

27

and our export trades, is covered by the proceeds of the shipping, of which we have spoken above. Until the end of the eighties it may be estimated that in most years this difference has been covered, a few years having even given a surplus, while during the last ten years, the proceeds from the shipping were not sufficient to cover the difference between the imports and exports. But here it should be noted that the importation of means of production and raw materials has increased to a much greater extent than the importation of articles of consumption. The imports of the first kind have gone up, during the last ten years (from 1888 to 1898), from kr. 50,000,000 to kr. 117,000,000, those of the latter kind from kr. 108,000,000 to kr. 163,000,000. The imports for productive purposes from 1866 to 1870 represented 28 %, from 1871 to 1875 32 %, from 1876 to 1880 only 26 %. in 1888 32 %, and in 1898 42 % of the total imports. This development is chiefly owing to the growth of Norwegian industry. Imports of articles of consumption amount now, as they did in the seventies, to about the same quantity as the exports. In this connection it should, however, be kept in mind that the said productive import to a certain extent is also indirectly consumed through the domestic consumption of industrial products. The consumption of articles intended for enjoyment and luxuries has also increased quite considerably. Much foreign capital has been invested of late in industrial enterprises and in Norwegian government and municipal bonds, and the banks have also drawn considerable foreign capital into the country.

The great advance made by Norwegian commerce and shipping during the last generation is, of course, closely connected with the extraordinary development of the world's commerce, and international intercourse during the same period. The mercantile marine of the world, as regards its effective carrying power, is now about five times as large as it was in 1850, and the total value of commercial transactions two and a half times as great as it was from about 1860 to 1865. From what has been stated before, it appears that the commerce and shipping of Norway, taken on the whole, has not only been able to keep pace with this rapid development of the world, but has even made a relatively more marked progress. Our commerce is now more than three times as large as it was in the first half of the sixties, and our effective tonnage is nine times as large as it was in 1850, although even at that time it was comparatively important. Our share of the whole world's mercantile marine was at that time about 2.7 per cent, in 1879 it had increased to 5.7 per cent, but after that period it was for some time relatively reduced, because, as mentioned above, we had not yet commenced to acquire steamships to any large extent. Since 1886 we have, in that respect, kept up better with the development, so that our mercantile marine has maintained itself at about 5 % of the total fleet of the world.

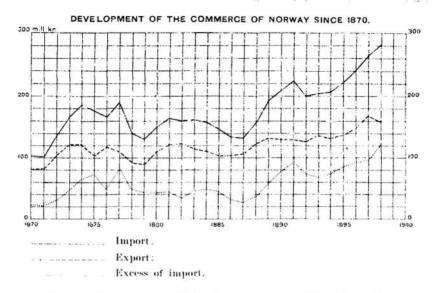
Among special causes of the advancement, noticeable, as far as Norway is concerned, during the last two generations, we may particularly mention the repeal of the British Navigation Act, dating from 1850, by which our vessels were allowed free carrying trade between British and other foreign ports, and the liberal customs policy of Great Britain and Ireland, which has once more made these countries the chief customer for our export, while an extreme protectionist policy during the greater part of the first half of the century had considerably reduced our previously flourishing trade with Great Britain. The especially favourable conditions of the market during the years 1850-56 also gave a great impulse to our commerce and shipping, and something similar can be said of the commencement of the seventies. Here should also be mentioned, last but not least, the reputation which the Norwegian seamen have earned for ability and honesty, inspiring all commercial nations with the confidence that their goods are carefully and conscientiously treated in our vessels. Norwegian seamen are also very much sought after to man foreign vessels, and now, as in previous times, our seamen bring honour to the Norwegian flag.

The development of our commerce and shipping has not progressed evenly from one year to another, but has been rather fluctuating. Thus the years 1857 and 1858, especially the latter, show a decrease, the reason whereof must chiefly be sought in the great European and American commercial crisis which occurred in 1857. This crisis, i.owever, had rather a favourable than an unfavourable influence on Norwegian trade, because the result of it was that the Norwegian commercial life which had previously been largely dependent on foreign banking-houses, now grew more independent. This greater independence of our commercial life was also partly brought about by the development of our private banking-institutions, our wholesale commerce and our shipping. During the sixties our commerce on the whole increased, the imports having gone up from kr. 63,000,000 in 1860, to kr. 103,000,000 in 1870, and the exports from kr. 50 or 60,000,000to kr. 81,000,000. Our shipping during the same period made an extremely rapid advance, our mercantile marine having increased from 550,000 register tons to 1,000,000 tons.

At the beginning of the seventies the times were unusually brilliant, and our import and export in 1874 reached the hitherto unknown figures of kr. 186,000,000 and kr. 121,000,000 respectively, and the aggregate amount of commerce consequently kr. 307,000,000, while our shipping at the same time brought about kr. 60,000,000 into the country. Our mercantile marine at the expiration of the same year amounted to 1,317,000 tons. During the latter part of the seventies, however, times were depressed, and the aggregate amount of commerce in 1879 went down to kr. 221,000,000. Even the mercantile marine which, since 1826, had grown without interruption, was somewhat reduced in 1879 (from 1,527,000 to 1,511,000 tons).

Since that time conditions have again changed. After some improvement in the beginning of the eighties, there came some years of depression, especially with regard to shipping. The years 1888 and 1889 again brought better conditions. During the lastmentioned year our commerce reached the figure kr. 324,000,000, and our mercantile marine, which, in the course of the eighties, had fluctuated considerably, reached the figure of 1,611,000 tons, whereof 1,443,000 tons were represented by sailing vessels and 168,000 tons by steamships.

The succeeding years (1890-1895) were, on the whole, a period of commercial depression. Commercial transactions, howeven, increased to kr. 353,000,000 in 1891, but during the following three years they remained between 330 and 340 million kr. Towards the end of 1895, commercial life again began to revive, and commercial transactions, during the unusually favourable and brisk years, 1897 and 1898, reached a higher point than ever before, respectively kr. 431,400,000 and kr. 439,500,000. (Cf. the following diagram showing the development of our commerce since 1870). Our fleet of sailing-vessels reached its highest point, 1,503,000 tons, at the end of 1890; but it has again gone down to 1,121,000 tons since that time, on account of the numerous shipwrecks, and because trading with sailing-vessels does not at



present generally pay except for long voyages. The fleet of steamships during the nine years, 1890-98, has gone up from 168,000 to 438,000 tons. The total carrying power (see page 415), which from 1892 to 1894 remained almost unchanged, has since that time increased from 2,222,000 tons at the beginning of 1895, to 2,696,000 tons at the beginning of 1899, a point never before reached.

# IV. PRINCIPAL ARTICLES IMPORTED AND EXPORTED.

#### A. IMPORTED GOODS.

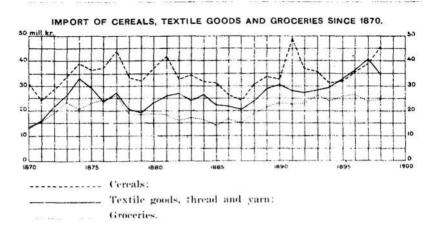
The goods imported may be divided into two chief groups according to the object of the importation, *imports for consumption* and *imports for purposes of production*. During the year 1898, as mentioned above, goods were imported for the former purpose to the value of kr. 163,000,000 (58 %) of the total imports) and for the latter purpose, to the value of kr. 117,000,000 (42 %).

Among the articles of consumption, the articles of food and drink are of the greatest importance. In the years 1866 to 1870, we imported, on an average, of such goods to a value of kr. 52,000,000, and in 1898 of kr. 97,500,000; but their ratio to the total import of the country has gone down from  $52^{\circ}/_{\circ}$  to 35~ %, which indicates a considerable increase in the national wealth. Nearly half the value of the articles of food and drink imported is represented by *cereals*, which, in 1898, we imported to the value of kr. 45,500,000. The importation of grain is at present much more extensive than in previous times, not only absolutely, but also relatively to the size of population, having increased from 2,400,000 bushels (3 bushels per inhabitant) about the year 1780, and an average of 4,800,000 bushels (3.3 bushel per inhabitant) during the years 1851 - 1860, to 15,500,000 bushels (7.15 bushel per inhabitant) in 1898. Of the grain imported about the year 1780, 33~% consisted of barley, 25~% of malt, and 29~% of rye; and in the fifties, 44~% of rye, 40~% of barley, 5.2~% wheat fiour. In 1898, 49~% wheat.

Next in importance are groceries of which, in 1898, we imported for an amount of kr. 24,500,000, three fourths of which are represented by coffee and sugar. The consumption of these articles, and especially of sugar, has greatly increased in the course of the last two generations. The import of sugar per inhabitant in 1835 was only 2.3 lbs., in 1850, 5.5 lbs., in the seventies and eighties, about 10 to 12 lbs., in 1893, 20 lbs. and in 1898, as much as 30 lbs. The price of sugar has gone down considerably, a circumstance which is largely due to great reductions in the duty at the beginning of the nineties. The consumption of coffee per inhabitant in 1835 was only 2 lbs., in 1850, 5 lbs. and in 1898, 11 lbs. The consumption of tobacco per inhabitant has gone down from 2.6 lbs. in the seventies to 1.8 lb. during recent years.

Of articles of food and drink other than cereals and groceries, Norway, in 1898, imported for kr. 27,500,000, whereof kr. 12,600,000 are represented by animal produce, and 7.8 million kr. by wines and spirits. The annual import of meat and bacon has risen between 1881 and 1885, from 6,400 to 15,000 tons' weight, or from 4.3 to 7.5 million kroner.

Ot articles of clothing and other similar goods the importation in the years 1866-1870 averaged kr. 14,000,000, and in 1898, kr. 37,000,000, chiefly textile goods. Compared to the total import, this group of articles has remained almost unchanged, generally between  $13 \ 0/0$  and  $17 \ 0/0$ . The chief textile articles imported were woollen and cotton goods, and yarn.



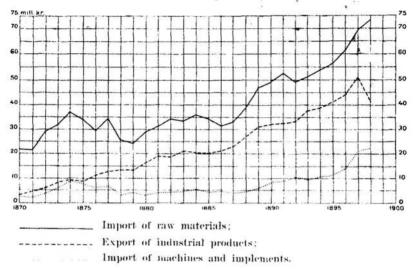
Among articles of consumption we should also mention household goods and furniture, which we imported to a total value of kr. 22,000,000 in 1898.

If we now turn to the *imports for production*, we notice that the greater part of the value is represented by *raw materials*, these amounting, in 1898, to kr. 73,000,000, while kr. 22,000,000 are represented by machines and implements, kr. 19,000,000 by ships, and 2.4 million kr. by naval stores.

Among raw materials we may especially mention coal (kr. 17,000,000), hides and skins (kr. 8,500,000), iron and steel (kr. 8,000,000), raw materials for textile industries (5.3 million kr., chiefly cotton, wool and hemp), petroleum, etc. (3.3 million kr.) and hemp-seed-oil, linseed oil, etc. (2.3 million kr.). It is of particular interest to follow the development of the import of coal, which may serve as a kind of barometer of our industry. In 1835 we only imported 6,000 tons of coal, but in 1850, more than 47,000 tons, in 1860, 125,000 tons, in 1870, 250,000 tons, in 1880, 470,000 tons, in 1890, 787,000 tons, and in 1898, 1,265,000 tons.

The import of iron and steel has also increased very much, and still more that of *illuminating oils*, of which article we only imported about 20 tons per annum in the fifties, in 1875 5,000 tons, in 1897 about 40,000 tons, and in 1898 somewhat less --- 37,000 tons. Of hemp, on the other hand, we now import not much more than in the fifties, and less than in the seventies. Of steam-engines, locomotives and other machinery we imported in 1897 for 7.6 million, and in 1898 for 9 million Kr. In the fifties and sixties we only imported for a few hundred thousand kr. of such goods, and in the seventies and eighties for a coupl<sup>x</sup> of million kr.

The following diagram shows the value of our import of raw materials and machines and of our exportations of industrial products.



Of vessels, we bought from abroad, during the years 1891 to 1895, on an average 88,300 register tons, and in 1898, 130,000 register tons, of which 70,500 register tons are represented by steamships.

Of manufactured *mctal goods*, whereof a part is included under the above-mentioned head of household goods, there was imported a total of somewhat more than 23 million kr. in 1898, chiefly iron goods. During the years 1866–1870, the total amount of the import of manufactured metal goods was only 3 or 4 million kr.

#### B. EXPORTED GOODS.

Timber and fishery products are now, as formerly, our most important articles of export. A characteristic feature, however, of our export trade of late has been the constant and very rapidly growing export of industrial products. Of the total value of exports in 1898 — 159 million kr. -- 59 million kr. are represented by timber and wooden goods, and 45 million kr. by fishery products, thus together 65% of the whole export. During the five years 1871 to 1875, the annual export of timber and wooden goods amounted to 45 million kr., and of fishery products to 42 million kr., making a total of 82% of the whole exports. From 1891 to 1895 the figures were 44 and 45 million kr. and 67%, respectively

Other exports were:

	Million kroner									
or a	1871– 75 (average)	1891—95 (average)	1896	1897	1898					
Norwegian products										
of agriculture and cattle-raising .	3.86	11.58	12.53	15.36	15.71					
<ul> <li>sealing, whating and hunting .</li> <li>mining and mineral industry,</li> </ul>	1.02	3.14	2.65	2.53	2.73					
ice etc	7.08	9,50	11.52 (	10.79	13.39					
<ul> <li>spinning and weaving industry</li> </ul>	2.61	5.12	6.43	6.79	0.46					
<ul> <li>other branches of industry.</li> </ul>	2.35	6.69	11.26	12.24	14.95					
Foreign gooda	2.56	8.03	10.02	8.02	7.88					

The total export of Norwegian industrial products, — including, amongst other things, wood pulp (classed above among wooden goods), but leaving out of consideration dressed deals and boards, ships, fish-oil and margarine — increased between 1867 and 1897 from  $1^{1}/_{2}$  to 50.4 million kr., but in 1898 went down to 41.6 million kr. (in 1876—1877 we exported of this kind of goods, on an average, for 10 million kr., from 1886 to 1890, for 26.7 million kr. and from 1891 to 1895, for 36.6 million kr.).

The export of *timber*, in 1898, amounted to 69,700,000 cubic feet, representing a value of 40 million kr. As far as quantity is concerned, we exported almost twice as much as in the forties\*), but somewhat less than in the first half of the seventies and rather more than the average for the years 1881 to 1897.

Of late years, between one third and one fourth of the timber has been exported in the most refined condition, namely as dressed

<sup>\*)</sup> See page 413; for the export of timber during the 16th and 17th centuries, p. 408-409; for that of the years 1804-06 p. 411.

deals and boards. The export of this kind of timber in 1898, amounted to 21,160,000 cubic feet, while from 1871 to 1875, the average was only 10 million cubic feet.

In the above figures representing the export of timber, some originally Swedish timber is included, which has undergone more or less manipulation in Norway.

Under the head of wooden goods must next be mentioned *wood-pulp*, an industrial product which is of recent origin and of which, as late as 1875, we only exported 8500 tons, with a value of kr. 683,000. In 1885 this export had increased to 91,000 tons, in 1895 to 246,000 tons, and in 1898 to 315,000 tons with a value of 17.3 million kroner. Of this total, 235,000 tons was moist mechanical pulp (kr. 7,400,000) and 60,000 was dry chemical pulp (kr. 8,600,000), while dry mechanical and moist chemical pulp were of less importance. If we leave timber and fish-products out of consideration, there is no Norwegian article of exportation which at the present time approaches wood-pulp in importance.

Turning next to the other large branch of Norway's exports. fish-products, we find the aggregate value of those exports in 1898 to have been, as before mentioned, 45 million kroner, to which may be added one million kroner for tinned goods, which mostly consist of fish products. The fish exports of the abovementioned year were of about the same amount as the average of the last 30 years. In the individual years, however, there are often very great fluctuations, both as regards quantity and price. Compared with former times, on the other hand, the fishery exports have made great progress, although, relatively speaking, they have always been important. The table p. 427 shows the amount of the Norwegian fishery exports, as far as the most important articles are concerned, at various times in the course of the last 200 years (for the years before 1815, however, only from the most important places of export).

It will be seen from the table on page 425, that our exportation of the *products from agriculture and cattle-raising* has advanced rapidly of late, namely, from barely 4 million kroner annually in the years 1871—75, to 15.7 million kroner in the year 1898. This increase is especially due to the two articles, butter and condensed milk, of which the exportation in 1898

	'ear		er	age	·)		the second second	Klipfisk	Stockfish	Herring (salted)	Fish-oil	Roe	
								To	ns	Thousand gallons	Thousand gallons	Thousand gallons	
About	1695	13		ī.			-1	about	4,300	<sup>8</sup> ; 418	163	41	
	1731	2)	Ç.,	÷	13		- 4 - j	about	3,900	990	abt. 154	84	
1756-0	60 <sup>2</sup> )				8		. l	about	9,100	3,784	abt. 356	205	
About	1780	2)		•		2002	. 1		9,400	946	<b>`38</b> 9	167	
	1805	2;			4	•	. I		17,500	abt 1,320	915	510	
1815-	19.			*				1,500	7,800	3,982	491	218	
1820	29.					÷		4,500	12,900	8,272	865	41565	
1830	10.		24	2	ų.		84	8,400	15,500	13,156	843	550	
1841 1	50.	÷		14	÷	43	а.	10,300	13,700	15,400	1,478	583	
1851	60.					$\sim$	12	16,600	15,100	14,826	1,437	733	
1861	70.	τ.,		ġ.	÷	23	•	22,900	14,600	21,375	1,899	878	
1871	80.	-		ŝ.	2		1.	36,800	18,900	19,991	2,893	1,221	
1881	90.	÷	792	3				41,800	16,600	18,966	3,419	1,254	
1891-	95.	×		æ		*	085	54,600	18,300	20,042	4,345	1,206	
1896	98.	2		2		12	1	41,800	17,300	23,232	3,769	1,151	

amounted to kr. 3,600,000 and kr. 4,600,000 respectively. The margarine (kr. 1,300,000) is counted as butter.

The most important of the other articles of exportation were packing-paper (kr. 8,100,000; 1891 to 1895, average only 3,500,000); ships (kr. 4,700,000; 1891 to 1895, 0.6 million kr.); ice (kr. 4,700,000; 1891 to 1895, kr. 1,000,000; the ice market in 1898 was unusually favourable); dressed stone (kr. 2,000,000); iron and steel nails (kr. 1,800,000); metals and ores (kr. 1,600,000); bran (kr. 1,500,000); copper, etc. (kr. 1,000,000). Formerly we also had an important exportation of textile manufactures (1891-95 an average of 4.5 million kr., 1896-97 6.0 million kr.), which almost exclusively went to Sweden; in the month of August 1897, however, the mutual exemption from duties which for a long time had been granted by Norway and Sweden to the products of the respective countries, ceased to exist, and our exportation of textile manufactures has now almost entirely

4) 1825-29.

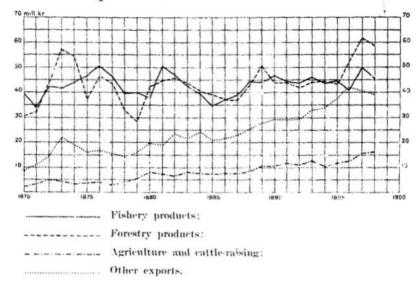
<sup>&</sup>lt;sup>1</sup>) From Bergen 1695--99, Kristiansund 1695--97, Trondhjem 1680--82, 84--88.

<sup>2)</sup> From Bergen, Trondhjem (1733) and Kristiansund.

<sup>8)</sup> Besides 440,000 gallons of other salt fish.

disappeared, while our importation of the same class of goods from Sweden has come down from nearly kr. 8,500,000 in 1896 to kr. 900,000 in 1898.

The following diagram shows the development in our export of the most important articles.



# V. THE COUNTRIES MOST IMPORTANT TO OUR COMMERCE \*).

The countries that are of the greatest importance to the commerce of Norway, will be apparent from the following table giving the average value of the commerce carried on with each of them in the years 1866-70, 1891-95 and 1898. (See the table next page).

It will thus be seen that Great Britain and Ireland and Germany are now, as they were a generation ago, unquestionably the most important countries for our commerce. The commerce

\*) In studying the statements and figures presented in this chapter on the basis of the Norwegian commercial statistics, it must be kept in mind that the goods are considered as having been imported from the country whence they are last sent, and as having been exported to the country to which they were first shipped, even if these be not the original place of purchase or the final destination.

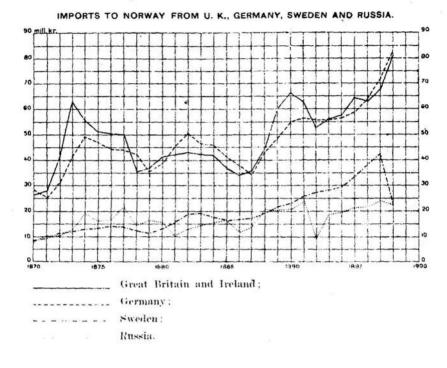
C	Countries		e of im ons of k	• • • • • • • • • • • • • • • • • • • •		e of ex ons of k		Total commerce (millions of kroner)			
		h1866-70	1891 - 95	1898	186670	1891 - 95	1898	1866   70	1891 95	1893	
<u>taine</u>	- C				1						
1.	Gr., Brit. and Ircl	24.7	58.7	81.0	21.5	45.5	66.3	46.2	104.2	147.3	
2.	Germany .	30,1	56.4	82.2	11.6	16.1	23.1	41.7	72.5	105.:	
3.	Sweden .	6.1	28.7		6.2 :	20.8	15.4	12.3	49.5	39.0	
4.	Russia	7.8	18.8	22.9	3.6	3.4	4.6	11.4	22.2	27.4	
5.	Holland .	2.8	8.5	12.0	6.4	6.3	9.3	9.2	14.8	21.:	
6.	Denmark .	17.5	10.4	14.4	4.1	4.6	6.9	21.6	15.0	21.3	
7.	Belgium .	. 1.3	7.8	12.5	1.2	4.6	6.7	2.5	12.4	19.;	
8.	U.S. Ame-		3		1						
	rica	0.1	10.3	14.2	0.1	1.5	1.3	0.2	11.8	15.5	
9.	France	3.9	5.0	5.1	8.7	7.8 .	6.9	12.6	12.8	12.0	
10.	Spain	0.8	0,9	2.4	61	12.9	8.5	6,9	13.8	10.5	
11.	Other										
	countries	6.6	5,7	9,9	4.1	8,9	10.3	10.7	14.6	20.:	
	Total	101.7	211.2	280.2	73.6	132.4	159,3	175.3	343.6	439.7	

with Great Britain, however, has developed faster than that with Germany, in as much as the share the British Isles have in our aggregate commerce has gone up from 26.4~% in 1866–70 to 33.5~% in 1898, while that of Germany has only risen from 23.8~% to 24.0~%. As regards our imports, the two countries are on about the same level, but as a market for Norwegian products. Great Britain and Ireland are far ahead of all other countries, as in 1898 no less than 41.6~% of our exports went to that country.

We may also mention that the commerce with Sweden, on account of the above-mentioned change in the customs relations, was much smaller in 1898 than in the year immediately preceding; but it is nevertheless larger than it was 30 years ago. Sweden's share in our total commerce amounted in 1866—70 to 7 %/0, in 1891—95 to 14.5 %/0 and in 1898 to 8.9 %/0.

Denmark's share in our commerce, on the contrary, was much larger in 1866—70 than it is now. especially as regards the imports, as at that time more than  $17^{0/0}$  of our imports came from Denmark (now only  $5.2^{0/0}$ ), and Denmark, next to England and Germany, was the most important country for our commerce. — Our trade with France has also relatively greatly decreased, especially as regards exports. This is chiefly due to the prohibitory

429



EXPORTS FROM NORWAY TO U. K., GERMANY, SWEDEN AND SPAIN.



customs tarif in France; for owing to this, our export of timber to that country, which, since the twenties, was of great importance (see page 413), has been greatly reduced. In 1866 we still exported 14 million cubic feet of timber to France (value 7.7 million kroner), but in 1898 only 4 million cubic feet (2.2 million kroner). — The export of timber to Holland which, during the first half of the 19th century and even up to the beginning of the seventies generally amounted to about 7 or 10 million cubic feet, amounted, in 1898, to only 5.6 million cubic feet; but as it now chiefly consists of sawn or dressed goods, while in former times it consisted mainly of rough-hewn timber, the value is not much less than it was in 1874, and is even larger than it was 50 or 60 years ago (in 1845, 1.7 million kroner, in 1874, 4.2 million kroner, and in 1898, 3.6 million kroner).

Our trade with the United States, particularly as regards imports, and with Belgium, exhibits an especially marked increase.

With regard to the chief articles of importation, we may mention that of the cercals imported, about half comes direct from Russia (chiefly from the ports on the Black Sca), rather more than one fourth from Germany (to a certain extent indirectly from Russia) and the rest chiefly from the United States, Denmark Textile goods are chiefly imported from Germany and Roumania. (especially woollen goods) and Great Britain (chiefly cotton and woollen goods). Of the groceries rather more than half comes from Germany, and some from the Netherlands, Great Britain, etc.; coal almost exclusively from Great Britain; manufactured and unmanufactured metals chiefly from Great Britain, Germany, Sweden, Belgium and Holland; steamships chiefly from Great Britain; machinery chiefly from Germany, Great Britain and Sweden; meat and bacon from Great Britain, Sweden, the United States, Denmark, etc.; wine chiefly from Germany, Spain, France and Portugal.

As far as the exports are concerned, more than half the *timber* (in 1898 57%) goes to Great Britain and Ireland. Belgium and Holland, in 1898, received 9% of each, Australia 7% of France and Germany each 5% of and South Africa  $2^{1}/2$ % of our exported timber. Of wood-pulp two thirds go to the United Kingdom and the remainder chiefly to France and Belgium. Of the *fish products* (in 1898) 23% went to Germany, 19% to Sweden, (chiefly herring), 16% to Spain (klipfisk), 13% to Great Britain and Ireland, 7% to Holland, 6% to Italy,  $4^{1}/2$ % to the Russian ports on the

Arctic Sea and about 4 % to the rest of Russia, 0.4 % to Finland, 3.7% to Denmark, 1.7% to France (roe). Of our *paper* export 70% went to the United Kingdom, and 25% to Hamburg; *natural butter* and *condensed milk* go almost exclusively to Great Britain and Ireland.

# VI. OUR MOST IMPORTANT COMMERCIAL TOWNS.

Of the aggregate foreign commerce of Norway in the years 1866-70 about 24 %, in 1881-85 36 %, in 1891-95,42 % and in 1898 40 %, fell to the share of the capital, Kristiania. while 19 %, 16 %, 17 % and 15 %, respectively, fell to Bergen, and 6 %, 51/2 %, 7 % and 61/2 % to Trondhjem. To these our three largest towns there fell a percentage of 491/2 of our total commerce from 1866 to 1870, and of 611/2 in 1898. The importance of the various towns, however, is very different according to whether we consider imports or exports. More than half the imports (52 %) in 1898 fell to the share of Kristiania, 16.3 % to Bergen and 6.6 % to Trondhjem, while of the exports only 18 % fell to the share of Kristiania, 13.2 % to Bergen, and 6.7 % to Trondhjem. As export towns of especial importance must also be mentioned the timber-trading towns of Fredrikstad and Drammen, which in exports exceed even Trondhjem. Not far behind Trondhjem comes Kristiansund, chiefly renowned for its export of salted and dried fish (klipfisk). For imports, Stavanger is the most important town, next to Trondhjem (3.5 %/0).

As far as our chief articles of export are concerned, it may be of interest to mention that the *fishery* export (aggregate amount in 1898, 46 million kr.) chiefly takes place from Bergen (16 million kr.), Kristiansund (about 8 million kr.), Aalesund (5 million kr.), Trondhjem, Haugesund and Stavanger; while the *timber* (altogether 40 million kr.) is chiefly exported from Fredrikstad (13 million kr.), **D**rammen (5 million kr.), Kristiania and Fredrikstald (each 4 million kr.), Trondhjem, Porsgrund, Arendal and Kristiansand. *Wood pulp* (in all 17.5 million kr.) is chiefly exported from Drammen (6 million kr.), Kristiania (3 million kr.), Sarpsborg (2.5 million kr.) and Skien (2 million kr.).

As a brief summary it may be said that the export of wooden goods takes place chiefly from the south-east, and the fishery exports from the west and north of Norway. In earlier times Bergen, as has been already said, was our chief commercial town. This was the case until far on into the present century, in as much as it was only after 1835 that the customs duties on goods imported to Kristiania regularly exceeded the import duties levied in Bergen. The exports from Kristiania about 1845 were only estimated at 1.4 million kr. while those from Bergen were estimated at 6.8 million kr., from Stavanger at 2.8 million kr., from Drammen at 2.6 million kr., and from Trondhjem at nearly 2 million kr. In the middle of the seventies, Kristiania, as well as Bergen, exported for about 20 million kr., Kristiansund and Fredrikstad for about 10 million kr., Drammen for about 7 million kr. and all other towns combined for about 47 million kr.

# VII. THE MOST IMPORTANT SHIPPING TOWNS.

The greater part of the total effective carrying power of the Norwegian Mercantile Marine — 2,696,000 tons — namely 2,339,000 tons, belongs to the towns. The fleet of the most important towns, sailing-vessels as well as steamships, at the end of 1898, will be seen by the table below.

Towns		Stean	nships	Sailing	vessels	Aggre- gate	Aggregate effective	
	1	Number	Tonnage	Number	Tonnage	tonnage	carrying power*)	
1. Bergen .		235	151,600	108	7,800	159,400	553,700	
2. Kristiani	a .	168	76,600	176	117,400	194,000	393,300	
3. Tonsberg		69	53,400	76	31,300	84,700	223,700	
4. Stavange	r.,	69	27,100	366	64,500	91,600	162,200	
5. Arendal		23	8,100	180	88,300	96,400	117,400	

Next in importance to the towns named in the table come Haugesund, with an effective tonnage of 86,900 tons, Drammen (77,000 tons), Porsgrund (57,500 tons), Grimstad (56,200 tons), Sandefjord (53,800 tons), Fredrikstad (50,500), Kristiansand (48,100), Kragerø (47,309), Mandal (46,000), Trondhjem (42,600). As regards

\*) 1 steamship ton considered equal to 3.6 sailing-ship ton.

28

steamships in particular, Haugesund had 15,900, Trondhjem 11,400, Drammen 9,000 register tons, and none of the others more than a few thousand tons.

The most important of our towns as regards the effective carrying capacity of its merchant service is at present Borgen, which, with its flourishing fleet of steamships has worked itself up to a position worthy of this ancient commercial metropolis. The Bergen fleet almost exclusively consists of steamships, while that of the capital as yet consists to a large extent of sailing-vessels. The fleet owned by Kristiania, therefore, although it is ahead of that of Bergen as far as cubic capacity is concerned, is behind the latter in effective carrying power. The fleet of steamships owned by Kristiania has also, however, grown very rapidly of late years.

Of the aggregate carrying power represented by the Norwegian mercantile marine,  $63.1 \, {}^{0}/_{0}$  belong to the south-eastern part of the country (coast and fjord towns and districts from the Swedish frontier to somewhat west of the southernmost point of the country),  $26.5 \, {}^{0}/_{0}$  to Bergen and Stavanger, and only  $10.4 \, {}^{0}/_{0}$ to the remainder of the country.

# VIII. THE TRADE OF NORWEGIAN SHIPS WITH THE VARIOUS FOREIGN COUNTRIES.

The countries and continents of greatest importance to our shipping may be seen from the table on the next page.

It will thus be seen that the kingdom of greatest importance to our foreign shipping is Great Britain and Ireland, whither more Norwegian tonnage employed in foreign trade goes than to Norway itself. The Norwegian flag also, next to the British, is the flag that is most frequently seen in the ports of Great Britain and Ireland<sup>\*</sup>) It also appears that it is to a large extent with distant lands, especially America and Eastern Asia, that the Norwegian mercantile marine is engaged.

\*) Of the tonnage annually arriving at, and departing from, British and Irish ports with cargoes, during the years 1896-98, -73 million tons in all -, 58 million tons were sailing under the British flag, and 20 million tons under foreign flags, of which again 4.7 million tons were under the Norwegian flag.

#### COMMERCE AND SHIPPING.

Countries	1	an tonnage rrying trad		Gross freight, made, in-	Percentage of tonnage	Percentage of gross freight	
(or continents)	Arrivals	Depar- tures	Total	coming and out- going	Percenton	Perce	
	Thousand Reg. Tons	Thousand Reg. Tons	Thousand Reg. Tons	Million Kroner	0 <sub>/0</sub>	°/o	
1. Great Britain &		1.000					
Ireland	2,447	2,199	4,646	55.5	26.9	25.4	
2. America	1,311	1,881	3,192	49,5	18.5	22.7	
stern Europe ex- clusive of Scandi navia and Great Britain and Ire-	and a line of the second s						
land	1,790	974	2,764	36.9	16.1	16.9	
4. Norway 5. Sweden, Denmark	1,235	1,780	3,015	27.7	17.5	12.7	
and Iceland 6. Asia, exclusive of the Mediterranean.	636	797	1,433	16.8	8,3	7.7	
and Australia 7. Southern Europe	752	668	1,420	15.8	8.2	7.:	
and countries of the Mediterranean 8. Africa, exclusive of	314	237	551	10.0	3.2	4.(	
the Mediterranean	213	15	228	6.2	1.3	2.8	
Total	8,698	8,651	17,249*)	218.4 *)	100.0		

# IX. THE PART OF THE POPULATION ENGAGED IN COMMERCE AND SHIPPING. CO-OPERATIVE SOCIETIES. FAIRS. COMMERCIAL LAWS.

The total number of merchants and tradesmen in Norway, according to the latest census (1891), was 15,100, of which 3,700 were women. These merchants and tradesmen had in their employ altogether 13,100 clerks, foremen, etc. (whereof 4,300 females), and 9,100 male and 700 female workmen; there were also about 600 children under the age of 15, employed in trade. It will thus

\*) In these figures each voyage is reckoned twice.

435

be seen that in the whole more than 38,000 persons were engaged in trade. If we add to this number the families and household servants of these persons, there were altogether 105,000 persons (5.2%) of the total population of Norway) who directly or indirectly made their living by trade. Of the 15,000 merchants and tradesmen (pedlars etc. included), 9,000 lived in towns, and 6,000 in country districts.

In addition to the above, trade is also carried on by several *co-operative societies*, particularly in the country districts where there are about 200 such societies in all, with probably about 20,000 members, and aggregate sales amounting to several million kroner.

Annual *fairs* formerly played an important part in home trade. With the great progress recently made in the means of communication, the importance of the fairs has greatly decreased. In the year 1899, 19 fairs were held (sometimes two or more at the same place), besides some horse-fairs. Since 1900, the annual fair in Kristiania has become merely a horse-fair.

The aggregate crews of the Norwegian Mercantile Marine consisted on Jan. 1st, 1899, of 51,643 men. In 1875 the number of seamen and ships officers was over 60,000, because our fleet at that time largely consisted of sailing-vessels, and the number of vessels was larger than it is now, although the effective carrying capacity was less. The census of 1891 shows a total of about 28,000 common seamen belonging to Norway, about 12,500 ships captains, officers, engineers, etc., and about 750 ship-owners, of There were also rather more than whom 200 were women. 1,000 owners of sloops, local trading-vessels and boats - altogether 42,000 persons engaged in shipping (foreign and home); if the families and household servants are included, there were about 119,000 persons directly or indirectly connected with this means of livelihood, or 5.9 % of the total population of the country. For the sake of comparison, we may state that in Sweden. only 1.5 % and in Denmark only 1.3 % of the population were connected with shipping.

The most important of the *laws* at present in force with reference to commerce, dates from the year 1842; according to this law every person of age and good reputation in the towns, can, as a rule, obtain a trade-license. Certain public and private functionaries, and shipmasters are however excepted. A law of 1866 has permitted handicraft and trade to be carried on by the same person. Some branches of trade may be carried on without a license. On the other hand, certain articles such as spirits and poisons, are excepted from ordinary trade, and subject to special license. In the country districts, general trade-regulations like those in the towns, were introduced by acts of 1857, 1866 and 1874. Formerly the country trade was much restricted.

By an act of 1818 an Exchange was established in Kristiania, and subsequently in several other towns, e.g. Trondhjem and Bergen.

The shipping and navigation act now in force, dates from 1893.

# X. PILOT SYSTEM.

The basis for the Norwegian pilot system, as at present regulated, is a Royal Ordinance of 1720, while the Pilotage Act now in force dates from 1899 (in force since April 1st, 1900). In places where the king so decrees, there are to be pilot stations. In 1898 we had in all 148 of these. At the end of 1897, there were 471 pilots; the number was formerly much larger than now, the pilotage in later times, on account of the increasing change from sail to steam shipping, being more concentrated around certain ports, and the dispatch also quicker. For the purpose of supervising the pilots, master-pilots have been appointed, numbering 43 in 1898, to some extent assisted by pilot foremen. The chief administration is in the hands of three superintendents of pilots, each in his own district.

The pilotage tarif is fixed by law, and the fees depend chiefly upon the draft of the vessel, its carrying capacity, and the season. The fees belong to the pilot who has had charge of a vessel, if he has the privilege, with the exception of  $14 \, {}^{0}/_{0}$  to the *relief fund for pilots*. This fund, which was established in 1805, serves the purpose of furnishing assistance to old and invalided pilots, as also to their widows and orphan children. Up to 1900, the fund also partly served the purpose of covering different expenses connected with the administration of the pilot system, and formed a relief fund for master-pilots and their families. The relief fund receives an annual grant from the Treasury, amounting, in the financial year 1898—99, to kr. 15,260. Its total receipts in the financial year 1897—98, amounted to kr. 141,636; at the beginning of the year 1898, it paid pensions to 398 pilots, 409 pilots' widows, and 115 orphan children of pilots. The average amount of the pensions for the pilots was kr. 198, for the widows, kr. 68 and for the children, kr. 39; and the total amount of the annual pensions paid to these persons was kr. 111,147.

All merchant vessels of at least 30 \*) register tons' burden, coming from or leaving for ports outside Norway \*\*) are subject to compulsory pilotage, or rather, since the year 1869, must pay a pilot's fee. Vessels, carrying on fishing or other similar industries in the open sea, are also subject to compulsory pilotage, unless they be under 130 ton's burden.

The number of pilotings of vessels, subject to pilotage, performed in 1897, was 17,410, and the aggregate amount of pilotage fees was about kr. 615,000. Of this amount, the pilots themselves retained about kr. 490,000, while about kr. 42,600 went to the master-pilots \*\*\*), and about kr. 85,000 to the relief fund for pilots, which also received about kr. 13,000 from vessels which, although subject to compulsory pilotage fees, did not employ a pilot. Some vessels not subject to compulsory pilotage also employ pilots, and in the year 1897, our pilots made an income of about kr. 70,000 from this source.

The Norwegian pilots are renowned for their ability, and the courage and devotion to duty displayed by them in the performance of their often arduous and dangerous task. Almost every year several of them lose their lives on the sea, either in the service, or while engaged in fishing. In the course of the years 1890–97, 19 Norwegian pilots have lost their lives at sea, 11 while engaged in the service, and 8 while engaged in other work.

## XI. HARBOUR ADMINISTRATION.

Norway is by nature well provided with good harbours, some of which are situated in the narrow fjords, some on the coast, or

\*) Before April 1st, 1900, 21.

\*\*) The general exemption from compulsory pilotage which formerly applied to the trade between Norway and Sweden was repealed in the latter country in 1894 for ships of more than 40 tons' burden, and in Norway after April 1st, 1900 (excepting for vessels of less than 30 tons' burden). The act of 1899, however, authorises the King to grant relief from these regulations, provided similar relief measures are introduced in Sweden.

\*\*\*) Before April 1st, 1900, 68/4 % of the fees went to the master-pilots.

on islands protected by the belt of rocks and small islands, the skjærgaard, which, with few interruptions, encircles the whole Norwegian coast up to the North Cape.

In the towns, as well as in different places in the country districts, more or less important harbour-works have been made at the public or municipal expense, and the cost of maintaining, extending and administering these works amounts to about two million kroner per annum. Of this amount the Treasury pays about kr. 400,000 directly, and a somewhat less amount is paid by the Harbour Fund, established by the government and formed and maintained by an export tax imposed upon fishery products, while the municipal harbour funds contribute about 1.5 million kroner (1895). These last-mentioned funds are chiefly made up of harbour dues, a percentage of the import duties, etc.

The total amount paid by the Treasury and by the said Harbour Fund for harbour works during the years 1862–1899, is 12 million kroner, of which more than 2 millions were for the harbour of Vardo on the Arctic Ocean.

## XII. LIGHTHOUSES, BEACONS AND SEA-MARKS.

The long coast of Norway must now be said to be well provided with lighthouses, beacons and sea-marks. The Norwegian State annually grants a large amount, at present about one million kr., to complete and improve the lighting and marking of the coast, and the mooring arrangements. In the year 1899, the State maintained 137 lighthouse stations with a permanent staff. 10 of these lighthouses being of the first, and 17 of the second order; and there were moreover 447 beacon lights; the number of seamarks in 1899 was about 3,600 fixed, and about 1,120 floating ones; at the same time there were 17 mooring buoys and about 7,300 rings and other mooring arrangements.

## XIII. STRANDINGS AND SHIPWRECKS.

The strandings on the Norwegian coast are not numerous compared with the large amount of shipping which passes along it, especially along the southern coast towards the Skagerak. This is chiefly to be ascribed to the many good harbours that are to be found almost everywhere, the good lighting of the coast, and the numerous good pilots. According to the somewhat incomplete statistics obtainable with reference to stranding and shipwrecks on the Norwegian coast in the year 1898, 25 vessels, 19 of them Norwegian, were wrecked. In 21 cases all on board were saved, while in the remaining cases, 15 men in all are supposed to have been lost.

A much darker picture is presented by the statistics relating to Norwegian shipwrecks, which, for steam and sail separately, give the following annual figures:

								S	ailing-vess	e]s			5	team-vess	sels
•		'ea	r			3	Num- bet		Tonnage	Percent- age of total sailing tonnage		Num- ber		Fonnage	· Percent- age of total steam tonnage
						17		I.	Reg. Tons					Reg. Tons	-
1886-	-90,	a	vei	age	۰.		209	9	68,522	4.6		7		2,781	2.0
1891-	-95,						223		90,502	6.2		12		6,603	2.6
1896		2	20	ŝ,	32	÷.	197		88,184	7.1		13	1	6,958	2.1
1897		2	ē.		8	3	191		74,401	6.2		26		16,251	4.4
1898						. 0	191		78,034	6.8	2	20	1	10,016	2.4

In these shipwrecks, many sailors have met their death (in 1898 at least 272), and the matter has attracted considerable attention. In 1894 a parliamentary commission was appointed for the purpose of dealing with the question of the government control of the seaworthiness of vessels, etc., and this commission has drafted a bill which is now being considered by the special department.

## XIV. LIFE-SAVING STATIONS AND BOATS.

On two of the most dangerous stretches of the Norwegian coast, namely Lister and Jæderen (in the south western part of the country), where the coast is not protected by any belt of rocks, life-saving stations with rocket apparatus were established in 1855. In 1899, we had 9 such stations, 6 of which were in Jæderen and 3 in Lister, a life-boat station being connected with one of the latter. In the year 1898—99, the Treasury contributed a total of

440

kr. 15,103 to life-saving purposes, of which kr. 10,000 were granted as a contribution to the private company «Norsk Selskab for Skibbrudnes Redning», which was formed in 1891 with a capital of kr. 100,000, contributed by private subscription from the whole country. The society has gradually procured 13 life-boats. These boats, which have been stationed at various places along the coast, have already saved a considerable number of human lives (up to June, 1899, 498 men) and vessels. The society has estimated as its expenditure during the year 1900, the sum of kr. 78,500, whereof kr. 50,000 will, according to estimate, be covered by subscriptions and donations through the different committees distributed all over the country.

# XV. CURRENCY, WEIGHTS AND MEASURES.

The currency act of June 4th, 1873, which took effect on Jan. 1st, 1874, established the gold standard in Norway. The coin unit, according to the act of April 17th, 1875, is the krone of 100 ore, 1 kr. — 1.1043 sh. =  $1^{7}/_{18}$  franc =  $1^{1}/_{8}$  reichsmark. This monetary system was introduced according to the Scandinavian Coinage Union concluded between Sweden and Denmark in 1873, and acceded to by Norway in 1875.

By an act of May 22nd, 1875 metric weights and measures were introduced.

#### BIBLIOGRAPHY.

Norges officielle Statistik.

J. E. KRAFT. Topografisk-Statistisk Beskrivelse over Kongeriget Norge. D 1-6. Kristiania 1820-35.

O. J. BROCH. Le royaume de Norvège et le peuple, norvégien. Kristiania 1878. A. M. SCHWEIGAARD. Norges Statistik. Kristiania 1840.

M. B. TVETHE. Norges Statistik. Kristiania 1848.

P. A. MUNCH. Det norske Folks Historic. 8 Vol. Kristiania 1852-63.

O. A. OVERLAND. Illustreret Norges Historic. 1--Vs. Kristiania 1885-95.

YNGVAR NIELSEN. Bergen fra de ældste Tider indtil Nutiden. Kristiania 1877.

ALEX. BUGGE. Studier over de norske byers selvstyre og handel for hanseaternes tid. Kristiania 1899.

 EDVARD HOLM. Danmark Norges Historie (1660-1766). Kjøbenhavn 1885-98.
 A. N. KLER. Historical Sketch of the Development of Scandinavian Shipping (The Journal of Political Economy, Chicago, June 1893).

L. H. VOGT. Om Norges Udførsel af Trælast i ældre Tider (Norsk historisk Tidsskrift, 2nd Series, Vol. V).

# MEANS OF COMMUNICATION

## ROADS.

R oad traffic in former times was carried on in a manner similar to that which may be seen to this day in out-of-the-way districts and in the mountains. In the *summer*, it keeps to the bridle-paths that run between the farms without much regard to level. In the more frequented roads, the greatest obstacles are indeed removed; but as there is no question of any proper road-bed, the damp places and bogs occasion the greatest difficulties. In order to avoid these and find firm ground, detours are rather made over high hills. The roads, therefore, often lie high up the slopes. Goods are carried up on pack-horses. Where opportunity offers, boats are used across the lakes. — In the *winter*, on the other hand, it is just over the low, damp parts that the road goes, along the frozen bogs, rivers and lakes; and all heavy transport is done at that season by sledge.

Even the most ancient laws from about the year 1100, contain provisions for the keeping of the main roads where they have run in previous times, for the maintenance of the bridges, for annual clearing, etc. The road was to be so far cleared of trees, that a man could ride in them with a spear lying across the pommel of his saddle, without having the willow rings hanging loosely on its ends brushed off, that is to say, rather more than 3 yards.

Real *driving-roads* for wheeled vehicles were not constructed until later in Norway with its scattered population. The oldest is probably the road from the Kongsberg Silver Mines to the Drammen river, which was built between 1625 and 1630. In the course of the 17th and 18th centuries, especially the latter part of the 18th, the main lines in the East Country, and thence over to the West (Filefjeld) and North Country (Dovrefjeld) were made practicable, while in the coast districts, west and north, they generally remained in their former condition. These oldest driving-roads often followed the original bridle-paths, up hill and down dale, with gradients of as much as 1 in 5, or even 1 in 3. Blasting was seldom employed, but on the other hand embankments were often built. On difficult sloping rock, wooden bridges were sometimes laid.

After 1814, by royal decree, roads were first specially constructed to the Swedish frontier. But road-making was not prosecuted with any real vigour until after the middle of the 19th century, when a thorough reform was simultaneously carried out in the organisation of matters pertaining to roads, and new principles introduced in their structure.

The highways act of 1851 brought in local government for the roads department. While formerly it was the king who decided what main roads were to be built - in the country districts the prefect - the whole decision was left to the authorities chosen by the people, the Storthing and the county and municipal councils. The expenses of the main roads are partly borne by the county or counties concerned; but the government grants a considerable proportion of the cost of making Resolutions as to the making of new roads are therefore taken by the Storthing, conditional on the voting, by the districts concerned, of an amount which, in addition to the expenses of ground and fences, is fixed at from 1/5 to 1/3 of the cost of construction. The central administration and preparation of the roads budgets has been, since 1864, in the hands of a director, who is now under the department of public works. The maintenance of the main roads, on the other hand, with the exception of a few border and mountain roads, falls entirely to the districts.

The cross-roads are made by the districts themselves, generally, however, with a contribution from the county funds, and of late years from the Exchequer also. In each separate county, the magistrates retained the controlling authority; but the fuller administration of the roads is conducted by road inspectors appointed by the county, county engineers. During the last few years, however, a common administration of government and provincial road matters has been introduced by agreement in most of the counties (15 out of 18). The county engineers are appointed by the department after nomination by the county council, and superintend also the government roads, while the central administration, on the other hand, has some control over the cross roads.

The keeping of the roads in proper repair is still done in most cases by the farmers under the supervision of the «lensmand». each farm being assigned a piece of road in proportion to its ground-tax, which is to be provided with gravel, kept practicable in the winter, etc. Of late years, the districts have to a great extent taken the maintenance into their own hands, and road-keepers are appointed to look after them.

In 1850, the total length of road in the country was 10,000 miles, 3,800 miles being main roads. During the half century since the reform of 1851, the length of road has about been doubled. The main roads now amount to about 6,000 miles, and the cross roads to more than 10,000 miles (in 1895, 5,994 and 10,783 miles respectively, 16,777 miles in all).

The cost of making main roads, which in the forties did not amount to kr. 150,000 annually, has risen to 1.7 million kr. annually in the years 1890 to 1896. In 1894, the government grant amounted to kr. 1,374,295. The cost to the counties of road-making, including cross roads, amounted to kr. 296,974, to the districts kr. 337,290. to the towns kr. 87,821. The total expenditure on road-making thus amounted to 2.1 million kr., to which must be added the expenses of administration. The maintenance of the roads at the same time cost the government kr. 57,830, the county corporations kr. 396,117, and the districts kr. 355,185, or kr. 809,132 To this must be added, as far as the districts are in all. concerned, the direct work performed by the owners of registered farms. In 1871, this, with a road-length of rather more than 12,000 miles, was estimated at kr. 1,237,000; and although since that time a considerable amount has been transferred to the direct expenditure of the districts, it cannot now, when the roadlength has been increased by one half, be put lower than at about 1.5 million kr. The total annual expenditure of the country on public roads is thus brought up to 41/2 million kr. in round figures, or rather more than kr. 2 per head.

Simultaneously with the great reform in road matters, by which the principle of local government and local rating was adopted, a more rational system of making roads was also resorted to. This reform was introduced mainly by C. W. BERGH, who was road-assistant in the Department of the Interior after 1852. and the first road-director in the country, 1864-73. The first thing required was to get more even levels with a maximum rise of 1 in 15 or less (rarely as much as 1 in 12). As it is of course important to follow the ground as exactly as possible, these new roads generally keep along the bottom of the valley by the river, while the old, hilly road may often be seen far up the side of the valley. In some places it is even possible to see three or four roads of different times, as for instance, at Galderne in Lærdal, where there is the old bridle-path of the middle ages, and driving-roads of 1800, 1840 and 1878. More attention was moreover paid to the paving of roads; in roads with heavy traffic, macadam was employed, with layers of stone, in secondary roads, gravel. In the large main roads, the breadth is up to 6 yards; in the roads with less traffic, it is generally 4 yards, which is reduced in difficult places to 2.7 yards, with places for passing. In planning a road, the whole thing is adjusted, as regards steepest gradient, paving, width, etc., to the probable amount of traffic.

The traffic capabilities of the roads during this development increased to an extraordinary degree Whereas on the bridlepaths, it was scarcely possible to convey more than 200 lbs. on a pack-horse, and on the old hilly roads no greater load than from 500 to 1,100 lbs., on the new gravel roads, from 1,300 to 2,000 lbs. can be carried, and on the main roads more than 2,200 lbs. per horse. When the roads are in good condition for sledging, the traffic is easier than on the best road-paving. In 1885, the cost of the carriage of 1 ton over 1 mile was estimated at from kr. 1.13 to 2.25 on bridle-paths, kr. 0.80 on the old, hilly drivingroads, about kr. 0.53 on the new roads, and on a first rate macadamised road, only kr. 0.32.

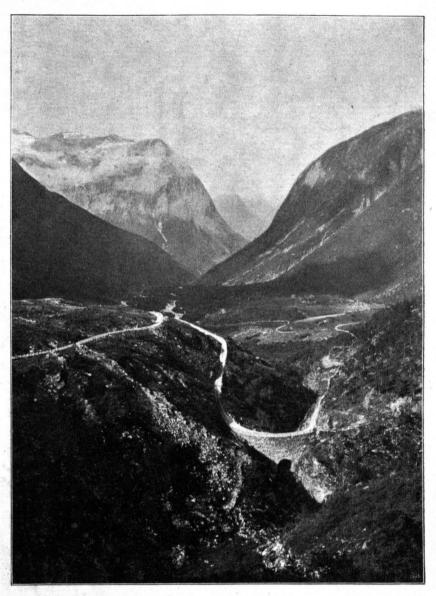
Wheeled vehicles in the country were formerly almost exclusively one-horsed and two-wheeled — for the conveyance of people, stolkjærrer (2 persons) or karioler (1 person). With the new roads, two-horsed, four-wheeled carriages have become very general (about 70,000 four-wheeled carriages in 1895). The bridges are now less frequently built of wood; iron or stone is preferred \*).

With the great improvements in the construction of the drivingroads, the cost of making has of course risen considerably. Roadmaking from 1824 to 1854 cost scarcely kr. 10,000 per mile on an average. From 1860 to 1880, the expenditure for main roads was 21 million kr., which is equal to kr. 22,000 per mile of increased length (according to somewhat uncertain estimates). In the years 1880 to 1895, 1,177 miles were constructed for 20 million kr., in other words at kr. 18,000 per mile. This last decrease is partly due to the fact that the newest roads are often narrower, but still more to technical improvements. The expensive embankments are largely replaced by jetties; and blasting has become so much less expensive since the introduction of dynamite; also the implements are more practical, etc.

It is a necessary consequence of the natural conditions in Norway, that the construction of roads must always be comparatively expensive and difficult. The ice-scratched rock is continually cropping up and necessitating blasting; and the roads cannot be made on loose soil as they generally can be in other countries. The terraces in the valleys, where the road is generally obliged to wind along the narrow river-bed, often present great difficulties. The steep declivities from the mountain plateaus to the deep valleys task the skill of the road-engineers in an especial manner. The descents from Filefjeld to Lærdal (Vindhellen, Galderne), from Dovrefjeld to Drivdalen (Vaarstien), and Stalheim Cliff (1844-45) on the Voss and Næreim road, are well known among the old roads. From later times may be mentioned the precipice from Haukelifjeld to Røldal, and the way thence across the Seljestad ravine to Odde in Hardanger, and the precipitous drop that necessitates great windings in the road from Lom (Grjotlien) to Geiranger and to Stryn (highest points 3,405 ft. and 3,736 ft., descent about 3,500 ft. in about 10 miles horizontal distance).

The three above-mentioned mountain-roads lie so near to the snow limit, that they are only practicable for wheels during a very short time of the year (sometimes as little as 2 months). At

<sup>\*)</sup> The longest bridge is across Akersviken (an arm of Lake Mjøsen) at Hamar, 2,411 ft.; the bridge with the greatest span is across the river Glommen, at Rena, 344 ft.



View from the Stryn road.

Dyrskar at the highest point of the Haukeli road (3,716 ft. above the sea) it has even been necessary to take the road through a tunnel in order to avoid a field of eternal snow.

A large amount of labour is bestowed all over the country on keeping the reads in a practicable condition in the winter after heavy snowfall. This is generally done by driving a snowplough, a triangular wooden frame; but a number of men are often needed with shovels to clear a way through the worst snow-drifts.

On the whole it is an unavoidable consequence of natural conditions and the thin population, that Norway should have great difficulty in making and maintaining good, up-to-date roads\*). Much is still wanting, especially in the three most northerly counties, to give the system of roads its natural termination. The projected new main roads may perhaps be estimated to be almost equal to those already completed. In the last half century, however, such progress has been made as the nation may be proud of, especially when taking into account the considerable accomplishments in the construction of railways during the same period. On main roads alone, about 60 million kr. has been spent since 1854 (on railways during the same time, about 145 million kr.).

The counties that have the greatest length of road in proportion to their extent, are of course those that are most thickly populated round the Kristiania Fjord — also the first to have driving-roads — where the proportion is from 50 to 65 miles of road per sq. mile. The average for the whole country is 13.5 miles per sq. mile (1896); and the three most northerly provinces have least, namely 0.65, 3.2 and 5 miles per sq. mile. (In Nordland alone, where the first government grant was made in 1860, the cost of projected roads has been estimated at 17 million kr.).

The average per inhabitant was 58.4 ft. Reckoned according to this standard, there was also least in the three most northerly provinces (about half), and most in North Trondhjem (91.8 ft.).

\*) In the west country there are a few farms that are only accessible by foot-path, where even the sure-footed fjord horse cannot go, and where thus everything must be carried to and from the farm by hand.

449

### POSTING.

From ancient times it had been a law that the peasants should furnish free conveyance to the king and those who travelled in his service. Those who travelled on private business, on the other hand, had to procure their own conveyance. Posting arrangements, by which the peasants were obliged to convey all travellers, but in return for a reasonable, law-determined payment, were not adopted until the close of the 16th century.

Our present posting system («skyds») is still based upon the compulsory posting obligation «tilsigelsesstationer», so that this is resorted to where it has not been possible or practical to establish posting stations voluntarily and by contract, with, if necessary, aid from the government or district «faste stationer». By far the greater number of the posting establishments in the land are, however, already of the last-named kind, and the cessation of compulsory posting is probably only a question of time. The government grant to the posting system during the last few years, has been about kr. 140,000 annually.

Posting-stations, and in connection with them inns, are established on all high-roads, generally at distances of from 7 to 15 miles apart, and along the coast. The total number of postingstations is at present about 950.

The most general means of conveyance on land is the twowheeled kariol or kjærre with one horse, and in winter, sledges. On almost all the principal routes, however, there is an opportunity of taking carriages. On two or three lines, the government has a regular diligence service. By water, the ordinary rowing-boat is employed with two or three rowers.

The posting charge for one person is generally 17 ore per kilometer (27 ore per mile) for horse and conveyance; and 28 ore per kilometer (45 ore per mile) for boat with two rowers.

On highways over the many uninhabited mountainous districts, where there is no opportunity of enforcing private posting and inn-keeping, the government has built stations, the so-called «mountain-stations» (fjeldstuer) whose management they place, however, in private hands, generally with support from the Exchequer. The origin of these «fjeldstuer» is, in many cases, a very old inn. Some of these at first were of an ecclesiastical character, but at the time of the Reformation passed into the hands of the State. But in more recent times too, it has been necessary for government to erect «fjeldstuer», especially in the northern parts of the country.

The amount contributed by government towards the maintenance of «fjeldstuer» is at present 12 or 13 thousand kr. annually.

## RAILWAYS.

The natural conditions of Norway, and the number of its inhabitants, do not present especially favourable conditions for the best means of modern locomotion — the railways. The exceedingly mountainous character of the country, and the cold climate with its long winters and heavy snowfall, and the thin, scattered population, place considerable obstacles in the way of railroad undertakings, even when the expenses of construction and working are reduced as much as the traffic will permit.

On the other hand, the natural conditions of the country may just act as an incentive to the employment of this means of communication, as their indirect usefulness will be so much larger in this land where great distances and difficulty of access would otherwise place insurmountable hindrances in the way of the development of business and trade. It has been calculated that in the districts that in 1885 had had railways for some time, the annual average distance travelled per head was only from 12 to 15 miles, and the carriage of goods only 660 lbs. before the railway came; but that after this had begun to work, the numbers had risen to 5 times their former amount. Since 1885, the traffic on these same lines has again been doubled, so that it is now 10 times what it was. While the travelling expenses for walking and driving (1885) were estimated at 13 øre per mile, those of the railway are only 5 øre; carriage of goods by the high-road was estimated at 42 øre per ton per mile, as against 8 øre by rail. These figures will show what vital significance railways have had for all economic conditions.

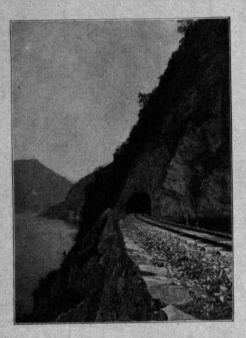
Relatively early, and about the same time as in the two other Scandinavian countries, the question of laying railways arose in Norway. In 1845 a private application was made for permission to lay a line from Kristiania to the southern end of Lake Mjøsen. It was only by an agreement of 1850, however, approved in 1851, between some English capitalists and the Norwegian government, that a determination was come to regarding the construction of the line. By this agreement the State was to pay half the expenses of construction and also the expenses of acquiring the land. The English capitalists secured to themselves in advance a somewhat higher interest than the usual one on their advanced capital. The line (Kristiania—Eidsvold) was opened for traffic in 1854 (42 miles). Most of those who had anything to do with the construction of this first railway believed that it would be the only one. Not many years had elapsed, however, before the question of constructing new railways arose, and in 1857 it was decided that three new lines were to be laid.

At the time when it was decided to continue the construction of railways, it was also decided to construct these lines as government railways. The principle of the government railway was not, however, entirely carried out, in that the means required for the construction were partly contributed by municipalities and private persons in return for shares in the railways concerned. In this manner, the country perhaps secured more lines within a short time than would have been the case under a purely government-railway system. The principle employed, however, had its inconveniences. The somewhat planless laying of the first lines in the country must to a certain extent be said to have been due to this circumstance. Administration was also made difficult by the fact of there being so many companies with different manage ment of money-matters, different accounts, etc. At the present time there are no less than 13 different government railway companies with a total length of line of 1,040 miles.

After a period of a somewhat forced construction of railways in the seventies and a subsequent period of ten years, in which no railways were constructed, their construction was again resumed in the beginning of the nineties. At present, however, the prin ciple followed is altogether that of the government lines. Now, too, a certain contribution is required from the district — as a rule 15 % or 20 % of the cost of the line; but in return for this contribution, the district does not receive shares in the railway, the proceeds of which go exclusively to the State. There is at present 80 miles of purely government railways. This figure, however, will soon be considerably increased, inasmuch as government railways of a total length of about 500 miles are either in course of construction or have been determined upon.

In order to make it possible to remove the difficulties that result from the parcelling out of the railways between several companies, a law has been passed for the expropriation of older The government shares in these lines at present amount railways. to about 85 % of the total amount of shares, thus leaving about 15 % in the hands of municipalities and private persons. In the course of time, the State has bought up the greater part of the private shares in the line from Kristiania to Eidsvold. The government has, moreover, been authorised to acquire the remaining preferential shares by exchanging them with government bonds, a project which has been almost completely carried out. It will be seen from the above, that there are at present in the country government railways of a total length of 1,120 miles. To this must be added the line from Kristiania to Eidsvold, in which the State has the predominating interest, and which has a length of 42 Of late there have also been constructed some smaller miles. tertiary railways, towards which government has given a grant, either in the form of shares or in the form of a loan not subject to interest nor repayment by instalments. One small private line has also been laid without a government subsidy. The total length of the private lines recently built, not including tramways and similar lines, amounts to 68 miles. Thus the total length of all railways in Norway amounts at present to 1,230 miles, a figure, which, however, within the next few years, will be raised to about 1,850 miles. As already stated, this increase will result chiefly from the government railways that are in course of construction or have been resolved upon; but the private tertiary lines have also made rapid progress of late, and there are indications of a continued development in this direction. The Storthing, for instance, in 1899 voted subsidies to three new private tertiary railways, one of which — the Valdres Railway — is a very important undertaking (65 miles), which it is also intended to fit up somewhat better than is usual with tertiary railways.

With these railways, however, those that are completed and those that are under construction or have been determined upon, the railway system is not yet fully developed. The construction of several, to some extent considerable, lines is still required for this end. The purpose of the earliest railways was to connect the larger and more densely populated inland districts with the coast, or, in other words, the larger towns with their surrounding districts. In the first place it was thought necessary to connect the largest continuous inland inhabited district, namely, the east-country districts round Lake Mjøsen with the capital (the Kristiania and Eidsvold Line,



From the Voss Railway.

(1854). Subsequently Østerdalen was brought nearer to this line of communication by means of the Hamar and Elverum Line (1862), which was extended to Aamot in The connection be-1871 tween Eidsvold and Hamar. however, was still maintained by steamers on Lake Mjøsen, until, in 1880, a connecting line was laid along the east bank of Mjøsen to Hamar, continued in 1896 far up into Gudbrandsdalen, under the name of the Eidsvold and Otta Railway. In 1902 a line will be opened from Kristiania, via Hadeland and Toten, to Gjøvik on the west bank of Lake Mjøsen, called Nordbanen (Northern Railway). The

other large towns that have been provided with railways are Trondhjem, where a railway to Storen was opened in 1864; Drammen, with the Randsfjord Line (1868), with branch lines to Kongsberg and Kroderen; Stavanger with the Jæderen Railway (1878); Bergen with the Voss Railway (1883). (of whose length of 67 miles almost one tenth is in tunnels); and Kristiansand with the Setesdal Railway (1896). A line from Arendal to Aamli was resolved upon in 1894.

All these, as it will be seen, are local lines. The three lines that establish a connection with Sweden have more the character of main lines or trunk railways, namely, the *Kongsvinger Railway* (1862), eastwards, the *Smaalens Railway* (1879), running by a coast and an inland line southwards from Kristiania, and the *Meraker Railway* (1881) from Trondhjem. Only 27 miles of the *Ofoten Railway*, which is now being built from the head of the Vestfjord to the large iron-ore districts in Norbottten and to the Swedish Norrland Railway, lies within the frontiers of our country. The cost of construction in this wild mountain country is estimated, however, at 9.3 million kroner.

A more connected railway system within the country itself, the Western Railway, was brought about by the connecting line Kristiania to Drammen, laid in 1872, and in 1881 'continued to Skien. Combined with the Randsfjord Railway and its branch lines, this line has a total length of 225 miles.

The first real trunk line in the country, connecting large districts, was obtained when the local district railways of Kristiania and Trondhjem were connected via Østerdalen by the Roros Railway (1877). By this line, the distance between Kristiania, the economical centre of the country in the south, and Trondhjem, the traffic centre in the north, where about 1/4 of the population of the country lives, was reduced from 793 miles by sea to 349 miles by rail (with a change of gauge, however, at Hamar).

It was not until 1894 that the Storthing passed an act for the second great trunk line, connecting Bergen, the financial centre of the west, with the east country, by continuing the Voss Line across the mountains eastwards. In 1898 its further course was finally determined via Hallingdal to the Northern Railway (Nordbanen), joining this at Roa in Hadeland. In 1907, the distance between the two largest towns in the country will thereby be reduced from 423 miles by sea to about 310 miles by rail, and the time occupied on the journey will be about one third of the shortest voyage at present. This *Bergen Railway*, which for more than 60 miles of its length is at a height of more than 2,300 ft. above the sea, presents considerable technical difficulties. At present a tunnel (the Gravehals Tunnel), 3 miles long, is in course of construction in the mountains, (2820 ft. above the sea level). The large quantity of snow will probably render it necessary to cover in the line for considerable distances.

By a vote of the same year, 1894, it was decided to extend the Jæderen Line to Flekkefjord, and thus the third natural trunk line of the country, the West Country Railway, may be said to have been established in principle, from Stavanger round the south of Norway (via Kristiansand), to the Western Railway and Kristiania. It is estimated, that this line with its branches to the numerous coast towns, will be more than 370 miles in length. This line too, has to be taken through a mountain country that is very expensive to work; of the 10 miles nearest Flekkefjord now under construction, more than 3 miles is tunnel.

The construction of yet another trunk line was also entered upon in 1894, by the concession to the line from Hell, on the Meraker line, to Sunde on Lake Snaasen. This is the Nordland Railway, which will be extended northwards along the longitudinal valleys of Nordland, round the heads of the fjords, probably entering the polar circle, to Bodø, about 360 miles. Farther north, the wild, mountainous character of the country probably presents insurmountable difficulties.

In order to complete the great natural main lines of the Norwegian railway system, as indicated by the structure of the country and the distribution of its inhabited parts (see the map), there still remains a continuation of the Northern Railway from Gjøvik via Gudbrandsdalen to Trondhjem, with a branch line to Romsdalen (if continued to Molde about 250 miles of new line). By this central line a systematic connection between the chief divisions of the country will be completed and all the existing railways of the country will be connected with the exception of the Ofoten Railway. It will be seen, however, that more than  $\frac{1}{s}$ of this trunk line system still remains to be determined upon and laid. It amounts altogether to more than 2,500 miles, a truly great task to be undertaken by a people numbering 2,000,000 persons.

The limited amount of traffic on our railways very soon resulted in efforts to reduce, as far as possible, the cost of their construction. The Kristiania and Eidsvold Line, and later on the Kongsvinger Line were laid with the normal gauge (4.708 ft.). Subsequently, however, for a number of years, a narrower gauge (3.5 ft.) was employed even in lines which have afterwards become links in the trunk line system of the country. As, in addition to the narrow gauge, the whole fitting-up was of a plainer kind, it was found that the cost of construction of the narrowgauge lines was considerably cheaper. At the same time, however, lines with a normal gauge were still constructed. This difference of gauge necessarily caused great inconvenience, especially in the main lines; and when once the division was introduced, if was further developed by extension and connection with one group or the other. Owing to these circumstances, the gauge question in railway technics is the one that in this country has been most thoroughly examined into and discussed. The fight between the partisans of the different gauges has been carried on for a number of years. Of late, however, the normal gauge has won a decided victory over the narrow gauge. By employing about the same method of construction and material in both gauges, the difference in the cost of construction has proved to be considerably less than was originally supposed (now, on an average, only about 6 per cent). A lighter construction of normal gauge roads has to a certain extent been adopted, by which the expenses of construction of railways of this gauge too, can be very considerably reduced, as compared with the trunk lines of other countries, that are designed for great speed and heavy traffic. If the normal gauge is to be introduced on all the main lines of the country, reconstruction will be necessary with regard to several of them.

The traffic on the Norwegian railways, like that of other countries, has increased considerably in the course of years, not only with the addition of new lines, but also on the old lines. The increase has been even on the whole, although naturally with some ups and downs according to the condition of affairs. At present we are in a rapidly rising period. The gross revenue from the railway traffic in the business year 1898—99, amounted to about 14.5 million kroner (kr. 11,753 per mile), of which 6.6 million kroner was from passenger traffic, 7.5 million from goods traffic, and 0.3 million from other sources. The expenses of working and maintenance for the same business year amounted to about 9.8 million kroner (kr. 7,969 pr. mile).

The working of the railways has not given any very favourable result from a purely financial point of view. The net surplus, from which the expenses of interest are defrayed, and sums are set aside for different funds, during the years in which the railways have been in existence, has not represented a large percentage of the capital invested. Since 1880 it has only rarely been as much as  $2^{\circ}/_{\circ}$ . In the traffic year 1898—99, however, it went up to 2.9 %. Scarcely 1 % has been distributed as dividend to the shareholders. It is only the Kristiania and Eidsvold Line that gives its shareholders a fair dividend. Of the other lines, some yield a relatively small percentage, while others give no dividend at all. The capital invested in railways amounted in the above-mentioned traffic year, for all the government railways, to about kr. 146,000,000, and for the private railways to about kr. 16,000,000, giving a total for all railways of about 162 million kr. New undertakings have been decided upon for about kr. 70,000,000, and it may be assumed that the necessary reconstruction will raise the working capital for the railways laid and decided upon in Norway, to 250 million kroner.

As mentioned above (p. 87), Norway is the most thinly populated country in Europe, and it also has fewest railways in proportion to its area. There are only 0.9 miles of line to every 100 sq. miles, while Great Britain and Ireland have 17.3, and France 12.2. If we compare the length of railway with the population, the result is more favourable (6.1 miles per 10,000 inhabitants), and is only surpassed by Sweden (12.3 miles), Switzerland, France and Denmark. In Great Britain and Ireland, the ratio is 5.2 miles per 10,000 inhabitants.

### CANALS.

On account of her numerous rivers and lakes, Norway affords considerable opportunity for boat-communication within the country. Owing to the large waterfalls and the numerous rapids, however, it is only occasionally that a continuous length of natural means of communication of this kind is to be found. An improvement of the existing water communication also presents many difficulties, and therefore only a few such works of any importance have been undertaken. We shall here only mention the Fredrikshald Canal, the Nordsjø—Skien Canal, and the Bandak—Nordsjø Canal.

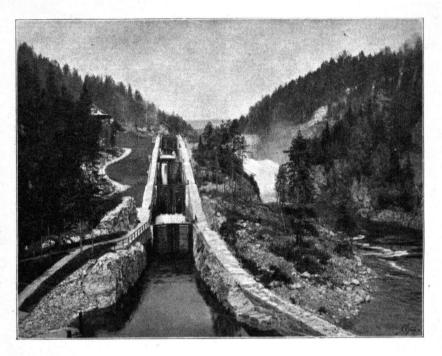
The *Fredrikshald Canal* (opened in 1877) has cost three quarters of a million kroner, and it has opened a water-way of about 47 miles from the lake Femsjoen, near Fredrikshald, to the northernmost part of the Skullerud Lake in Holand. From this place a tertiary railway has been constructed to join the Kongsvinger Line, thus making a connected line of communication. There are 12 locks in the Fredrikshald Canal. It is navigable for vessels of 5.6 ft. draught. This canal offers many points of interest and is therefore much visited by tourists.

The Nordsjø-Skien Canal connects the lake Nordsjø in Telemarken and the Hiterdal Lake — which is connected with it

458

by means of a navigable river — with the head of the Skien Fjord. A fall of 50 ft. is overcome by means of two locks in Skien and four at Løveid. The canal was opened for traffic in 1861. The expenses of making it amounted to about kr. 1,000,000.

The Bandak-Nordsjø Canal connects Nordsjø with the Bandak Lakes, and thereby opens up an inland water-way 65 miles



View from Vrangfos.

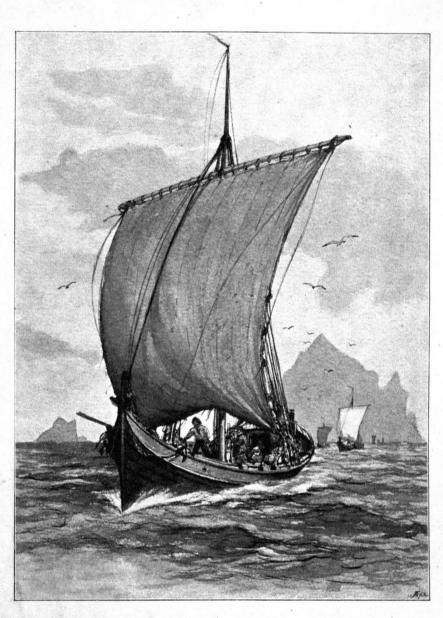
in length, from the sea at Skien into the very heart of the mountains at Dalen, at the west end of Lake Bandak. The height of this lake above the level of Nordsjø is 187 ft. The fall in the river is overcome by means of 14 locks, 5 of which are at Vrangfos. The rise in each lock is, on an average, rather more than 13 ft. The canal was made in the years 1887—92; the cost of making it amounted to about three million kroner. It runs through a region of great natural beauty and presents more points of interest than any other line of artificial water-way in Scandinavia. Vrangfos especially, both as regards scenery and construction, is unique of its kind. The dam at Vrangfos, which has a height of 121 ft., raises the level of the water 75 ft., and the waterfall thus produced is something really worth seeing. The construction of the canal presented many very great difficulties.

# COAST TRAFFIC.

In the section on Population (p. 90), a statement will be found to the effect that  $\frac{2}{3}$  of the population of Norway live upon the coast and fjords. One eighth live upon the islands in the «skjærgaard». When consideration is also taken to the fact that almost the whole coast-country is mountainous, and, to the west and north, often exceedingly wild and impracticable, it will be easily understood that *water-traffic* must necessarily play a part in addition to land traffic, greater than perhaps in any other land. This natural circumstance is the more significant from the fact that the «skjærgaard» along almost the whole of the long coast affords sheltered navigation, where the condition of the weather is seldom a hindrance to the traffic.

A large proportion of the daily traffic for short distances along the coast is carried on in *boats*. The same open boats that are used by the coast population for fishing, are employed to a great extent for travelling and transport. There is a number of peculiar forms of boat along our extensive coast. In the south, the boats regularly carry fore-and-aft sail. The bestknown type of open boat is the Lister boat. The Hvaler boat is a very practical form of small decked boat, that is much used by the pilots in the south. In the west and north, the boats are as a rule lighter and more pointed, with more upright, high prow, and carrying only one sail, a square sail. The most developed type of these is the Nordland boat, which, on account of its rigging, is not very well adapted for sailing close-hanled, but goes capitally before the wind, and is moreover exceedingly light to row.

The transport of goods for longer distances along the shore, was formerly carried on in small sailing-vessels. These, like the boats, were also as a rule with fore-and-aft sail in the south, and square sail in the north (Nordland jagt). In some trades, especially the fisheries, these sailing-vessels have continued to be



Nordland Boat.

used for carrying wood and other similar things to the towns; but in most departments they have gradually been supplanted by *steamers*.

According to the official statistics, the number of vessels employed in home coast-traffic is as follows:

					1866	1875	1885	1897
Number	of	Sailing-Vessels	e		2,439	2,622	2,567	2,934
7	2	Steamers		•	46	109	236	362
Tonnage	of	Sailing-Vessels			53,302	66,438	68,340	72,283
*		Steamers			2,890	7,753	13,574	16,945

The number of voyages and their tonnage together for 1885, are represented by the following figures:

											 Number of Voyages	Tonnage
Sailing-Vessel	8		÷		*	×	•		*		18,857	577,569
Steamers .	•	æ	×			×	•2	22		•	53,842	3,688,418

The steamers had thus at that date already taken 86.5 per cent of the coast-traffic tonnage.

These official figures do not, however, nearly represent the whole extent of the coast traffic, for they include only those ships that have not obtained their certificate of nationality for foreign voyages. This, however, most of the larger steamers have, that run in regular routes along the coast. If these packet-boats and all steamers under 100 tons are reckoned as belonging to the coast traffic, the number of steamers for 1897 would be 501 with a tonnage of 42,600 register tons.

If we suppose that these ships in 1897 have made, on an average, as many voyages annually as those without a certificate of nationality did in 1885, they will represent a tonnage of 9,800,000 tons, as against 528,000 for sailing-vessels.

There is no estimate of the stowage of ships in home traffic. In order, however, to form an approximate idea of the home goods traffic by sea, we may presume that each net register ton (100 gubic feet) of hold corresponds to 1 ton (2,240 lbs.), which is rather less than the average stowage of steamers sailing to and from foreign countries in 1897 (1.2 ton). The amount of goods conveyed in home coast-traffic would thus amount to 10.3 million. tons (95 per cent of this by steamer).

If we compare this figure with the transport of goods by rail for the same period, 2.2 million tons, we see that the total home transport has been more than twice as large as in transactions with foreign countries (5.5 million tons), and that in the home traffic, transport by steam and sailing vessels has been more than 4 times as great as by rail\*). If we also consider that the average distance of transport in the coast-traffic is considerably greater than by rail (41 miles in 1897-98), as, according to the figures for 1885, only 39 per cent of the tonnage (vessels without certificate of nationality) was engaged in voyages within one county, we shall see how far more important the transport by sea is than that by rail in the home trade in the coast country of Norway. Hardly any other country, except possibly Greece, can present anything similar. In comparing it with other countries with respect to means of communication, where the railway is the standard of measurement, this circumstance must be taken into In 1885, the coast-traffic in Norway was reckoned to account. be  $3^{1/2}$  times as large as that in Denmark, and more than double that in Germany.

The greater part of the coast-traffic is carried on by steamers running regular routes. A distinction may here be made between the coast-boats proper, which maintain a connection between the towns, the *fjord-boats*, which connect the coast towns with their surrounding country up the fjords and in the «skjærgaard», and lastly, the *small boats*, often open, that carry on the local traffic in the towns themselves and their immediate neighbourhood. The coast-boats are generally vessels of from 300 to 600 tone burden, with a speed of from 9 to 12 knots (a few newer ones

\*) This approximate estimate of the goods transported in coast-traffic, together with the railway statistics, may be employed to give an idea of the value of the goods conveyed by sea and rail. If we suppose the same average value per ton for home consignments as for foreign transactions (kr. 81), we obtain for 1897 more than a thousand million kroner in the home trade — about 6 tons and kr. 481 per head — against 431 million kroner in foreign trade — about 2.6 tons and kr. 205 pr. head.

are over 1,000 tons, and up to 14 knots). The most general type of fjord boat is one of from 70 to 120 tons, and a speed of from 8 to 10 knots. There is, on an average, one steamboat station to every 1,000 people in the coast-country. The connection between the large coast-towns up to Trondhjem is maintained by an average of at least one steamer daily, north of Trondhjem at least every two days, except in Finmarken, where it can be put at every three days (rather oftener in the summer). The time occupied in the various voyages is as follows: Kristiania to Bergen, about 38 hours; Bergen to Trondhjem. 32 hours; Trondhjem to Tromsø, 37 hours; Tromsø to Vadsø, 53 hours.

By far the greater part of the course that the steamers take is in water shut in by the «skjærgaard». The longest piece of open sea south of Finmarken is off Jæderen, taking about 5 hours to pass. On the other hand, the narrow channels with the innumerable islets and sunken rocks, demand the greatest skill on the part of captains and pilots. Experience shows that these demands are thoroughly fulfilled; for wrecks and loss of life have been extremely rare all the time the steamboat traffic has been carried on.

The first Norwegian steamer was procured by the government in 1827, to carry post and passengers from Kristiania to Copenhagen, and from Kristiania to Kristiansand. Subsequently the traffic was extended northwards along the coast as far as Finmarken, where communication with the south had formerly been very slow and difficult. As the private steamboat traffic gradually developed, the government withdrew, and in 1870 gave up its last route (to Copenhagen). Almost all the packet-boats proper (about 200, with 37,000 tons) are now owned by joint-stock companies. The 5 largest of these companies — with head offices in Arendal, Stavanger, Bergen, Trondhjem and Vesteraalen — have 64 steamers in all, with a total of 25,000 tons.

On many routes the passenger and goods traffic alone would not pay. A considerable addition to the profits, however, is made by the payment made by government for the regular conveyance of mails along the coast district. In the present budget this is put down at kr. 1,205,000. In order to improve the communication with certain out-ofthe-way fjords and islands where there is little traffic, the government furthermore contributes directly to the support of private steamboat companies — at the present time, about kr. 800,000. In this connection it may be mentioned that the government also supports two or three steamboat lines to foreign ports, particularly to obtain rapid postal communication, e.g. Kristiansand and Fredrikshavn. Jutland (daily), and Bergen and Newcastle (3 times a week). The intention of encouraging export has of course something to do with this also, and is the only object of the third governmentsupported route — from the north and west of Norway to the Mediterranean. At the present time, about half a million kroner is paid for the conveyance of mails, and the support of these three routes to foreign ports. The total government grant for steamboat communication thus amounts to almost  $2^{1/2}$  million kroner, rather more than half of this being for the conveyance of mails.

In all these sums the grant to steamers on lakes is also included.

Of late years, the rich and varied scenery of Norway has attracted an ever-increasing number of pleasure-seekers to the country, chiefly in the months of July and August. Their number has been estimated at 13,569 in 1886, 15,747 in 1887, 16,776 in 1888, 23,403 in 1890 and 27,138 in 1895. Englishmen and Swedes were most largely represented. The profit they bring to the country was estimated at 5 million kr. in 1886, and for 1895 may be put at 7 or 8 million.

The means of communication, steamers, railways, driving roads, mountain roads, etc. that will give tourists the best return for their outlay, will be found fully detailed in the ordinary guidebooks. (Baedeker. Norway, Sweden and Denmark. 7 ed. Leipsice 1899; Cook's Guide to Norway, Sweden, and Denmark. 3 ed. London 1899; Murray. Handbook for Travellers in Norway. 9 ed. London 1897; Y. Nielsen. Reisehaandbog over Norge. 9 Udg. Kristiania 1899; Meyers Reisebücher. Norwegen, Schweden u. Dänemark. 7 Aufl. Leipzig 1899; Thomas S. Wilson. The Handy Guide to Norway. 4 ed. London 1898).

The authorities publish a weekly time-table — Norges Communicationer» — containing the principal railway and steamboat routes.

### BIBLIOGRAPHY.

- Angaaende en Plan for Kommunikationsvæsenet (Kommunikationskommissionens Indstilling. Sth. Forh. 1886. 2 D. c).
- JOH. SKOUGAARD. Det norske Veivæsens Historie med Oversigt over Statens Veivæsens Virksomhed i Tidsrummet 1820-1896. Kristiania 1899.
- Forhandlinger og Aktstykker vedkommende de norske Jernbaner. I-XII. Kristiania 1875--82, 1896.
- Kanalvæsenets Historie. Udarbeidet af Kanalkontoret. I-IX. Kristianin 1881-88.

466

# POST, TELEGRAPH AND TELEPHONE

# POSTAL SERVICE.

The beginning of the Norwegian postal service dates from about the middle of the 17th century. During the first few years, the development was slow, and limited chiefly to the establishment of connecting lines between the capital and the most important of the other towns in the country; but before the close of the century, a regular postal service was organised up to the most northerly districts of the country.

In our day, the postal routes cover the whole country like a network, and in numerous ways places it in regular and frequent communication with foreign countries. The most important foreign mail routes are the railway from Kristiania, via Göteborg, to -Copenhagen, by which the post comes and goes twice a day; a daily steamer-route between Kristiansand and Frederikshavn in Jutland, and a tri-weekly steamer-route between Bergen and Newcastle. The most important inland post routes are identical with the railways and the large private steamship-companies routes, that, starting from Kristiania, Bergen and Trondhjem, embrace the entire coast from Kristiania to Vadsø. The total length of postal routes in 1898 amounted to about 42,864 miles. It is indicative of the country's natural means of traffic that of this amount 27,425 miles was by water, 14,137 miles by high-road, and 1,302 miles by rail. The distance traversed was 4,192,337 miles by water, 2,192,937 miles by high-road, and 1,446,077 miles by rail, 7,831,351 miles in all.

The conveyance of the mails was at first imposed upon the peasants as a duty with no return but exemption from certain other duties, such as military service and posting obligations. This system was of course long ago discontinuel, and all conveyance of mails is now performed by contract. The total expenses of the inland postal service amount at present to nearly 2 million kroner per annum, of which the conveyance by steamer costs more than 1 million, by rail about kr. 450,000, and by rural and boat postal routes about kr. 350,000.

The rates of postage were originally dependent upon the distance, as well as on the weight and size of the packet. This principle was continued, although in a more and more simplified form, down to the middle of the 19th century, the present principle, in which the postage is independent of the distance conveyed, not being adopted until 1854. In the same year postage stamps were also introduced. The inland postage for an ordinary prepaid letter is 10 øre. If the letter is more than 15 grammes (0.48 oz.) in weight, the postage is 20 øre, and for letters weighing more than 125 grammes (4 oz.), 30 øre. The maximum weight of an ordinary letter is 500 grammes (16 oz.)

Norway has been a member of the Postal Union since its foundation in 1874, and shares in the international conventions and arrangements with the exception of the arrangement concerning the books of identity. In order to improve still further the postal communication with foreign countries, more or less comprehensive agreements have also been entered into with the neighbouring countries of Sweden, Denmark and Russia, and with Germany, France, the British Isles, and the United States.

The working of the postal arrangements in Norway was not at first a government affair, but a personal privilege the holder of which furnished the means to pay the expenses connected with the postal service, and received the profits. Not until 1720 was the postal service brought directly under the Crown. The conveyance of the mails, however, is not entirely a government monopoly, as the monopoly only includes sealed letters. The management of postal matters is in the hands of the Public Works Department, and under the charge of a secretary. The regular post-offices are divided according to their importance into 3 classes, entitled *postkontorer*, *postaabnerier* and *brevhuse*. On all the railways, and on the most important steamer routes, travelling post-

468

offices are also established. At the close of 1898, the total number of post-offices was 2,241, and of employés, 3,439.

It appears from international postal statistics for 1898, that in comparison to her population, Norway is one of the countries most abundantly supplied with post-offices in the Postal Union, as there is a post-office to every 990 inhabitants: A more favourable condition in this respect is shown by only one country in Europe, namely Switzerland, where there is a post-office to every 840 inhabitants. After Norway comes Germany with 1478 inhabitants to every post-office.

The revenue of the Norwegian Post Office is increasing rapidly, and during the last 5 years has augmented by an average of kr. 252,000 per annum. In 1898, the total receipts were kr. 4,497,868 and the expenditure kr. 4,183,222.

In 1898, 33,563,600 inland letters were dispatched, of which 2,236,900 were letters with declared value, amounting to kr. 334,475,000; and 5,265,500 foreign letters, of which 70,800 were letters with declared value, amounting to kr. 13,585,100. The number of foreign letters received was 5,941,000, of which 14,100 were letters with declared value, amounting to kr. 9,930,200. In the course of the year, 46,445,400 newspapers and periodicals were dispatched, 4,278,800 other packets of printed matter, samples and business papers, and 315,000 parcels. The number of postal and telegraphic money orders dispatched was 259,474, to the amount of kr. 12,540,746.

The average per head of letters dispatched is about 17.5. Comparing this with the number of letters per head in other countries, it appears that among 56 countries in the Postal Union, Norway is the 17th as regards the amount of correspondence, and among 21 European countries, the 10th. The correspondence is greatest in the town-counties Kristiania and Bergen, where the numbers are 56.98 and 39.57 letters respectively per inhabitant (reckoned according to the population at the last census); next comes Finmarken with 21.30 letters per head. Of foreign connections, that with Germany is the briskest. In 1898, 1,078,400 ordinary letters were dispatched to Germany; next come the British Isles with 938,800, Sweden with 935,200, Denmark with 480,700, and France with 208,900.

In the course of the last 10 years, the correspondence of the country has been almost exactly doubled.

# TELEGRAPH AND TELEPHONE SYSTEMS.

On the 1st January, 1855, Norway's first telegraph-line was opened between Kristiania and Drammen. In June of the same year, a line was laid to the Swedish frontier, and thus communication established with foreign countries. In order to procure a somewhat complete telegraph system for the whole land, considerable constructive energy was expended in the next succeeding years; and on reaching the most northerly towns in the country, Hammerfest, Vadsø and Vardø, in 1870, the trunk lines of the telegraph system may be said to have been completed. The chief lines are from Kristiania, through Gudbrandsdalen and Trondhjem, to Vadso, the lines branching off from these to Romsdalen and Bergen; lines from Kristiania through Kongsvinger and through Smaalenene to Sweden; from Kristiania along the coast to Stavanger and Bergen, and the coast-line from Bergen to Trondhjem. In conjunction with these main lines, there is a local telegraphic sytem, which, however, is mainly confined to the fishingdistricts.

The management of the telegraph and telephone has always been a government monopoly, though in such a manner that within the boundaries of a municipality it was originally free. There was no law on this matter before 1881. While the working of the telegraph has always been undertaken by the government, that of the telephone, from the very first, was conceded to private enterprise. The development of circumstances gradually brought about a change in this, and in 1886, the first government line was laid, arranged exclusively for telephonic communication. It may now be considered a fixed principle that the government takes over the connecting lines between the various parts of the country, and between the towns; while the working of the local telephone may for the present be left to private enterprise, but in such a manner that the government reserves to itself the right of establishing or taking over local telephones to whatever extent may be deemed advisable in the interests of the public. In accordance with this, a new act appeared in 1899, giving the government the sole right of putting up telegraph and telephone lines, doing away with the former liberty to work a telephone within the boundaries of a municipality, and at the same time giving the government the right of expropriation with regard to already completed private lines. The government has moreover already commenced the formation of a complete state telephone system, and during the last three years has voted successively, to telegraph and telephone lines, kr. 1,331,900, kr. 1,398,160 and kr. 1,425,500. Of these sums, the amounts devoted to unmixed telephone lines were kr. 966,300, kr. 869,860, and kr. 819,900. In the south and west of Norway, a connected state telephone system has already been completed: and according to a plan, worked out by the director of the telegraphic service, for the future extension of the telephone, there should be, in 1906, a fairly complete state telephone system over the whole country.

The total length of state telegraph and telephone lines at the close of 1898, amounted to 7,485 miles (378 miles of this being cable). The total length of telegraph wires was 11,266 miles (427 miles cable), and of telephone wires 6,371 miles (66 miles cable). The total number of cables was 363. During 1898, 300 stations were working, 113 being regular telegraph stations, 117 regular telephone stations, and 70 fishing stations. The number of employés at the close of the year was 513.

• The telegraphic rates on the first line were exceedingly low, namely 20 øre for a message which might contain 25 words. A zone system was afterwards resorted to, but again abandoned in 1863, when a uniform rate was fixed for the whole country, with a price of 1 kr. up to 15 words. In 1888, the rate was reduced to 5 øre per word, but with a minimum charge of 50 øre per telegram, and this rate is still in force.

The telephone rates are not yet finally regulated. At present they are collected on the basis of a zone tarif.

In 1898, the number of telegrams dispatched was 2,074,236. The increase from the previous year is 2.5 per cent for inland and 9.6 per cent for foreign messages. The correspondence was greatest with England (260,374 telegrams exchanged); next comes the German Empire, Sweden, Denmark and France.

The number of conversations through the state telephone was 713,472.

The revenue from the combined telegraph and telephone systems amounted in 1898 to kr. 1,945,735, which shows an increase on the preceding year of kr. 295,136. The expenses amounted to kr. 1,954,911. The telegraph and telephone service is managed by a director, who is under the Public Works Department.

Norway has been a member of the international Telegraphic Convention since its foundation in 1865 Special agreements are concluded with Sweden, Denmark, Germany, Russia and Holland.

The railway telegraph is not included in the above. In 1898, their lines amounted to about 1,200 miles, with 246 stations.

With regard to the number of telegraph-stations (not including the railway telegraph) in relation to the population, Norway, according to the international statistics for 1897, stands 6th in the rank of European states, as there is a telegraph-station to about every 4,200 inhabitants. The length of telegraph line in relation to the population is considerably greater than in any other land (2.5 miles per 1,000 inhabitants, Germany being next with 1.7, and the average for Europe, 1.1).

With regard to the amount of the correspondence in relation to the population, Norway is 4th in the European series, with 76 telegrams per 100 inhabitants. More favourable conditions can only be shown by Great Britain, France and Switzerland.

The first private telephone lines were completed in 1880. They were the subscription systems established in Kristiania and Drammen by the «International Bell Telephone Co. of New York, Limited». The subsequent development was rapid, and especially from the end of the eighties made a great advance. Upon the whole, the private telephone in Norway has undergone an extension, in relation to the population, such as hardly any other land can exhibit. Its wide-spread establishment in the country districts is especially worthy of remark.

The value of the private telephone-lines at the close of 1898 may be put at about 7 million kroner. The number of telephone apparatuses in the same year, according to statistics published by the country telephone unions, was 25,376, the number of central stations 505, the length of line 37,158 miles, the number of conversations 47,423,000, and the number of telegrams telephoned 179,301. The statistics, however, are incomplete, so that the actual figures will certainly be considerably higher.

#### BIBLIOGRAPHY.

Norges officielle Statistik.

M. BIRKELAND. Det norske Postvæsen i dets Oprindelse og første Begyndelse. (Smaaskrifter tilegnede A. F. Krieger. Kjøbenhavn 1887).

F. BUGGE. Den norske Statstelegrafs Grundlæggelse og Vækst. Kristiania 1890. Indstilling fra Komiteen til Udarbeidelse af en almindelig Plan for det Offentliges Forhold ligeoverfor Telefonvæsenet. Kristiania 1894. (Sth. Forh. 1895, 2 D. b. No. 194).

# LANGUAGE

1. We learn from inscriptions in the so-called older runes that peoples of Germanic nationality inhabited the Scandinavian countries as early as about 500 A. D. These inscriptions, carved on monumental stones, weapons or ornaments, show, for the whole of the Scandinavian north, a uniform language, closely related to the Gothic language, and of just as ancient a character. The highly stirring «Viking age» (the 8th to the 10th century A. D.) brought about important changes in this idiom, as will be seen by a comparison with inscriptions in the later Runic alphabet (from about 1050 A. D.) and with the oldest Old Norse manuscripts (from the latter part of the 12th century). An especially prominent feature of this development are the contractions and the weakening of unstressed vowels, which are produced by the prevalence of a quicker movement of the speech, by which, for instance, the name of the Thunderer was gradually changed from Donarar to *borr.* In the 11th century, the dialectical differences have grown to be so great, that it is possible to speak about several languages: Norwegian-Icelandic, Swedish and Danish; or, perhaps more correctly - inasmuch as the two last mentioned languages are very closely related - West-Scandinavian and East-Scandinavian. This differentiation is continued during the following period, so that even within the different countries, dialectical differences become more and more prominent; in Norway, it was particularly the distinction between the western and the eastern part of the country that became prominent. Nor did the development take place everywhere with the same rapidity; for instance the oldest Danish manuscripts (from about 1300 A. D.) show a much more advanced

#### LANGUAGE.

development than the contemporaneous Norwegian-Icelandic ones. Yet, even at the beginning of the 13th century, the unity was so prevalent, that the denomination «Danish tongue» is frequently used as a common designation of all the Scandinavian languages, contemporaneously with the individual appellation «Norwegian tongue», applied to the language of the Norwegians. This lastmentioned language was spoken, not only in Norway and Iceland, the Faroe Islands and Greenland, but also, for some time, in parts of Ireland and northern Scotland, in the Isle of Man, the Hebrides, the Shetland Islands and the Orkneys (in the last two groups of islands, even far into modern times), and moreover in certain parts of what is now Sweden (Bahuslän, a district of Dalecarlia, Jemtland and Herjeädalen).

The old Norwegian literature reached its highest develop-2 ment at the hand of chieftains and ecclesiastics in the 13th century; and this high standing, so far as Iceland was concerned. lasted for some time into the following century. In Norway the decadence occurred earlier. After the civil wars had swept away the old chieftains' families, there was formed in the course of the 13th century a new nobility which had no connection with the common people. This nobility upheld neither the independence of the language nor of the country; and when, at the beginning of the 14th century, the old royal family died out, the country at first had a half Swedish royal house, after which the regal power went entirely out of the country. The consequence of this lack of national interest on the part of the persons in power was that in the 14th century all independent literary life had become extinct In the middle of the century, after the devastations in Norway. of the great plague, even the copying of the old sagas ceased, and with it all knowledge of the old literature. What was henceforth written, besides copies of the laws, was exclusively public documents, decrees and announcements from magistrates and priests, and mercantile contracts.

These deeds and letters, although from a literary point of view without interest, are, so far as language is concerned, of the greatest importance — in the first place, on account of the information which they give us of the splitting up of our language into dialects. While the literature of the 13th century gives only faint indications of differences in the pronunciation and vocabulary used in different parts of the country, these differences appear much more plainly in the 14th and 15th centuries. Although the dialect form is often obscured by vacillating and negligent spelling, and by efforts to establish a standard form for the whole country, it is possible, by the assistance of the present dialectical conditions, in many cases to fix the time when the divergence commenced. The present splitting up into dialects seems to have been fully developed as early as the year 1520 A.D. The chief movement of the development illustrates the old experience that language movements may, like epidemics, spread over conterminous regions. From ancient times, and in constantly increasing numbers, we find features common to the West Norwegian and Icelandic, to the East Norwegian and Swedish (especially northern Norwegian and northern Swedish) to the South Norwegian and Danish. In the second place, these deeds and papers give us reliable information about the foreign influence on our language. They show us that, although Swedish and Danish in the 14th century, at the court and in the circles of the nobility, were considered nobler languages than the vernacular (a Norwegian queen even had French rhymed romances translated into Swedish), still these languages as yet exerted but little influence on the speech of the people. More frequent traces of Swedish influence are found only in the following century, when, by the cloister literature of St. Bridget, an attempt was made at a standard Scandinavian language; but this artificial idiom did not obtain any lasting importance. The Hanseatic towns, as in Denmark and Sweden, assumed, in the Norwegian commerce of the 14th and 15th centuries, a dominant position with their chief seat in Bergen, at that time the largest town of the kingdom. But although their power here was not less than elsewhere in Scandinavia, they had not in Norway the same opportunity of permeating the whole country. While the Danish language during this period was leavened with Low-German words, Norwegian documents show only a few examples of borrowed words. Those words which our country dialects have borrowed from Low German, have mostly slipped in at a later time and through other channels, partly through the direct commerce of the Norwegians with northern Germany, partly through the intermediary of the Danish language. Thus it may be said that the Norwegian popular language up to the 15th century, taken as a whole, had maintained itself free from foreign influence. Not even during the first period of the union of Kalmar during the reign of Queen Margaret, can we notice any tendency to neglect

476

### LANGUAGE.

the Norwegian language in favour of the Danish, either on the part of the government or of the officials. During the reign of Margaret's successor, however, there appeared in government documents plain indications of a commencing decadence, while court matters and contracts are still kept in the old forms. From the second half of the 15th century up to the time of the Reformation, it is only now and then that we find a letter that is worded to some extent according to the national style.

From the time of the Reformation (i.e. from about 3. 1530 A. D.) there is no longer found in written documents any form of language that can properly be called Norwegian. Simultaneously with the strengthening of the written language in Denmark by the translation of the Bible in 1550 A. D., and while the Swedes were re-establishing their language on the basis of the Upper Swedish country dialects, and even the Icelanders, who were amenable to the Danish government, were commencing to print books in their own tongue, in Norway the foreign tongue had its position strengthened by the introduction of the Danish translation of the Bible, which, as regards religious terminology, also exerted a certain influence on the speech of the country population. And when at the same time (in 1536 A. D.) Norway was forced into a close union with Denmark, then Danish was for ever established as the official language of the country. When, in the second half of the 16th century, Norwegians again appeared in the literature, there was no longer any spoken or written standard of Norwegian national language. The official circles and the immigrated nobility spoke Danish, which was also the written language of all educated Norwegians, and probably also the spoken language of educated people in the towns, though, especially as regards pronunciation, in a somewhat modified form. Thus even the necessary elements for the formation of a Norwegian book-language were wanting, and thus it happened that the Norwegian literature which now commenced to appear, and which to a large extent was produced by the re-awakened interest in the Saga period (a remote after-effect of the European renaissance), came to consist chiefly of Danish translations of the old Sagas and laws. For, although the understanding of the old Norwegian language had not quite died out, Danish had now come to be far more easily understood by the common people than the old language. In the writings which from this time appeared in our country, the language is distinguished from the Danish only by occasional words and expressions borrowed from the Norwegian speech. Such words and expressions are found particularly in books which deal with Norwegian nature and popular life, being especially the names of plants and animals. Special Norwegian peculiarities of syntax are also met with, for instance, in the books of PETTER DASS, some peculiarities of the dialects used in northern Norway. Even the first prose writer of the Dano-Norwegian literature, HOLBERG, a native of Norway, often sins against the Danish language by using Norwegianisms; but most writers endeavoured to write as pure a Danish as possible. This condition of things lasted until the separation of Norway from Denmark (1814).

4. While in the writings composed in Norway in the Danish language, we only see occasional gleams of the popular language, we meet, about the middle of the 17th century, with a book that has this language as its exclusive object, namely a brief vocabulary of one particular dialect, written by a minister of the Gospel. One hundred years later a bishop of Bergen published another such vocabulary, and towards the end of the last century we meet with the first feeble attempt at elucidating a country dialect by means of the not very well known Old Norse language. and with occasional poems in dialect. During the first half of this century, this interest for the native dialects waned, until towards the end of the period, the romantic tendency again turns public attention to the life and traditions of the people. The first edition of the Norwegian popular ballads appeared in 1840, and it was soon followed by others. In the meantime something had also occurred, which was likely to give to the study of the popular language a new background. There had appeared a dictionary and a grammar of the old Norwegian language, by whichthe common basis for all the dialects of the country had been made Thus the necessary basis for the works of the self-taught known. genius, IVAR AASEN, was given. These works made an epoch in the study of the Norwegian dialects. In 1848 he issued his «Grammar of the Norwegian Popular Language» and in 1850 «Dictionary of the Norwegian Popular Language». These works were of a purely scientific nature, without any tendency; but they soon became of practical importance, through their proving- the essential unity of the country dialects, their organic connection, mutually, as well as with the Old Norse. In 1853, Aasen wrote an

essay, which was the commencement of a great linguistic movement. He censured, in this essay, the unpopular manner of writing used by his contemporaries, and he finally arrived at the conclusion that a Norwegianising of the existing written language would be of very little help, and that only a restoration of the old Norwegian language would give a real national language with which the common people could be satisfied. In the new, re-written editions of Aasen's books, the plan has been entirely determined by the effort towards creating a standard language for all the dialects, inasmuch as every word is entered under a certain standard form, and the inflections are fixed.

This so-called «Landsmaal» is essentially an artificial language which nobody speaks. It is in the first instance based on the most antique western dialects, with occasional reference to the forms of the old Norwegian. Thus it is an idealised popular language, having a more antique character than the dialects themselves. In sound, vocabulary, and inflections, it is much nearer to the old language than is the Danish. For this new-made language, Aasen also produced the classical style, and he proved to be as prominent a poet and author as he was a linguist. In this language - in part with personal modifications according to the dialect of their native district, in part, also, with the removal of what is artificial and old Norwegian - a series of poets and authors have written with more or less talent, chiefly about domestic matters, while those who merely reproduce popular tales, stick, as might be expected, as a rule, to a certain dialect. The movement which was started by Aasen, has gradually, favoured by the political factional strife, gone farther than the old master seems to have fore-While Aasen laid particular stress on having the traditions seen. of the people taken down in its own language, the programme of the «Language Strugglers» has more and more gone in the direction of a war of extermination against the common written. language, the so-called Dano-Norwegian. The «Landsmaal» has, by legal enactment, been placed on an equal footing with the prevailing literary language, and thus we have at present two official written languages in Norway. In the rural communities, the instruction of the schools, whenever it is desired. can be given in the local dialect. On account of the more extensive use that has gradually been made of the «Landsmaal», its defects, as well as its advantages, have become more prominent.

### LANGUAGE.

In the first place it has proved difficult to make the south eastern part of the country, which is the economic centre of gravity of Norway, take a part in the movement. The most recent authors in this language try, indeed, to interest the south-eastern part of the country by approximating their language to the speech of that region; but on the whole it may be said that these efforts have not led to the desired result. Another difficulty that the new-made language has to battle against, is the vocabulary; for, although it is true that the aggregate vocabulary of the district dialects is very large, it is more an abundance than a real richness, and is more conducive to differentiation than to unity, because the same thing has different names in the different districts. The popular language lacks words for a number of conceptions belonging to modern civilisation. It cannot, out of its own inherited treasure, give us everything pertaining to modern life. The consequence is that whenever the language has been employed for practical use, the writer or speaker has been compelled either to form new words (generally by composition), or to adopt the words and phrases of the Dano-Norwegian. But as a matter of course, such wholesale adoption of linguistic material cannot but exert a destructive and disintegrating effect. A third difficulty is caused by the style. During the union with Denmark, fairy tales, popular stories and ballads were our national, unwritten literature. It is in harmony herewith that lyric poetry and the plain, every-day story are the very kinds of style which the «Landsmaal» has, without preparation, been able to treat satisfactorily. For the so-called normal prose, however (the business or scientific writings), the «Landsmaal», with its extremely simple syntax, is very far from being a fit medium. And the religious expression suffers from the lack of that venerableness which is a result of tradition.

5. Whereas the Norwegian poets of the latter half of the preceding century resided in Denmark, and their works made an integral part of the common literature, whose language they influenced to a certain extent, they came back at the beginning of this century to their native land, and thereby marked the discontinuance of the community of the literature. Nevertheless, at the beginning of our independence, there was as yet no Norwegian literary language. Those Norwegianisms which were naturally committed by Norwegian writers, were generally con-

sidered, even in Norway, as faults, as provincialisms. By and by, however, the newly awakened feeling of independence reacted against this notion; the Norwegianising of the language assumed the shape of a conscious effort. In the poetry of WERGELAND, the national tendency found a powerful, but as yet rather crude, expression. It was, however, only when literature adopted domestic subjects directly from the mouths of the people, that the development received some impetus. ASBJØRNSEN and MOE, with their remarkable reproductions of Norwegian fairy-tales, may be considered as creators of modern Norwegian prose. The movement obtained its theoretical expounder about the middle of the century, in K. KNUDSEN, who in his eagerness for the nationalisation of the language and the speech, was carried into a hopeless battle with the numerous foreign, especially German, elements. A]though lacking that reliable taste and tact which characterised the two above-mentioned authors. Knudsen's strenuous work has not been without influence especially as regards the development of spelling.

It cannot be denied that the endeavour to bridge over the gulf existing between speech and writing, is more required in Norway than in the neighbouring countries, because this difference is greater here than there. At the time of the separation from Denmark, the spoken language of the educated classes was as Danish as our written language, in everything except the pronuncia-During the time immediately following the separation, tion. Danish made even greater progress in our country than at any previous time. To speak Danish correctly was considered the surest standard of education. In circles where dialect had formerly been used, at least in daily intercourse, now, under the influence of the growing taste for reading, dialect was exchanged for Danish. During the course of the last half-century, great changes have been wrought in this state of things; the domestic element has continually become more prominent in the speech of the educated classes; a national spoken language with a Norwegian colouring is about to be formed on the basis of the speech of the educated classes in the eastern part of the country. The chief factor in this Norwegianising of the speech has been the popular language of the towns which, indeed, through centuries has formed an intermediary step, or middle link, between the Danish of the upper classes and the dialect spoken in the

31

# LANGUAGE.

immediate surroundings of the towns. The written language has only imperfectly been able to keep pace with this nationalisation of the speech. It is particularly the scientific and religious books which have remained behind, and to a somewhat less extent the newspaper literature, while the belles-lettres (especially lyrics) and writings relating to our own domestic affairs, show a steady advance towards a national expression. Thus it is that the daily reading of the people represents a language that is rather remote from their speech, and which is teeming with words and phrases, even among those most commonly used, that exist nowhere except on paper. It was against this official language with its foreign sound, that the Knudsen endeavour was directed.

6 The movement in the national direction which has here been described, was met in the sixties and seventies by an entirely different movement. This was the time of the so-called «Scandinavism», of which the ideal was the Pan-Scandinavian state. A consequence of its efforts was a Scandinavian orthographic congress, held in Stockholm in 1869, the purpose of which was to discuss the ways and means by which a greater approximation of the spelling of the Scandinavian languages could be brought about, the intention being to further the community of the Scandinavian literatures, whose very existence was threatened by the special Norwegian development. Several of the changes recommended by the congress have been gradually carried through. Others. however. have not prevailed, and on the whole it may be said that the reformatory tendencies at present in vogue in Norway, in the field of orthography, are based on entirely dissimilar principles, especially on the national (for instance, being guided by reference to the spelling of the «Landsmaal»), the democratic and the pedagogic principles. The Norwegian spelling, however, is at present in a transition stage which approaches the state of anarchy. While thus Danish words are very commonly written in the Danish manner against the pronunciation, the newly adopted Norwegian words follow the spelling of the «Landsmaal». Also as concerns the punctuation, there is a strife going on between the old rules, which have been adopted from the German, and the principle agreeing more with the custom prevailing in French and English, which prefers to see in the comma a guide for the reader, rather than a grammatical mark.

7. The so-called Dano-Norwegian — which more correctly ought to be called Norwego-Danish, as it is not a modified Nor-

#### LANGUAGE.

wegian dialect, but a branch of the Danish - although originally a foreign plant, has, as already indicated, to an essential degree taken colour from the soil into which it has been transplanted. Now, at the end of the century, it stands as an independent idiom at the side of the Danish, from which it is distinguished by the same characteristics that mark the two nations. Still, it is a matter of course, that such a young and not very firmly established language, in which native and foreign tendencies still often battle for supremacy, and in which the new is fighting the old. is much more difficult to characterise than those languages in which an independent civilisation has been wrought out, which through centuries have been undergoing a continuous development, in which style and speech bear the full individual impress of the nation. In this country, the individuality of the different authors is also very prominent in their diction. Some are conservatively correct, others radically progressive; most of them write a very uneven style, which, in men like BJØRNSON and LIE, is pregnant with new possibilities. The best representative of New-Norwegian classical style is IBSEN.

If we compare the new Norwegian language with the mothertongue, we shall be able to make the observation, that although it has been under its influence the whole time, it has in many cases retained old peculiarities which the mother-tongue has afterwards given up. As far as our pronunciation is concerned, it agrees, as mentioned above, in all essential respects with the popular tongue in contra-distinction to Danish. The hard consonants contribute greatly towards giving our speech a harder sound than the Danish with its modified sounds. Our accent is more like the Swedish than the Danish; one characteristic feature is the rising accent which often makes a foreigner believe our statements to be queries. Our speech is less melodious than the Swedish; the song element does not play so prominent a part. The inflection is being continuously Norwegianised, especially the formation of the plural; we have thousands of separate Norwegian words and phrases. One characteristic feature of our language is the numerous double forms, of which one, being Danish in its sound, especially belongs to the literary style and the more select language, and regularly has a more abstract signification, while the other, being Norwegian in its form, belongs to the every-day speech. The word-formation is most closely related to Danish, although several derivatives have been adopted from the popular language. The Dano-Norwegian syntax shows many points of similarity with the genuine Norwegian one, and the same is the case with the order of the words in the sentence. The Norwegian form of the language as written, very often lacks the grace and trimness of the Danish, the easy jest, the fine irony, the periphrastic designation. Conversationalists and artists in letter-writing are rare with us. Simplicity and strength are the qualities that we value the most. The simple architecture of the phrase is the one which comes most easy to us. The influence of the scanty and concise Saga style is noticeable from the days of PEDER CLAUSSON (1545—1614) down to BJØENSON. Even to the tenderest emotions we prefer to give a virile expression. There is in the voices of our best poets a strength and a ring which may sometimes become declamatory.

Swedish has hardly exerted any influence on the Dano-Norwegian. The fact that this language is nevertheless more closely related to Swedish than is the Danish, is due to the similarity between the popular idioms. Swedish, for instance, with reference to the fulness of the unaccented vowel sounds agrees with our dialects, while Danish (and Dano-Norwegian) have weakened them into a dull-toned e. The French influence which is very remarkable in Swedish, has been very unimportant with us. The flowery style has maintained itself in Sweden since the days of romanticism, while even our oratory is almost devoid of rhetorical ornament.

8. While the traces of the period of weakness which Norway underwent during her 400 years of union with Denmark, have, in the course of the century, been almost effaced, we have in our regular written language a lasting reminder of the price a country has to pay for the loss of its independence. By the introduction of Danish, a wall of separation was erected between town and country, from which our political life has not been the least sufferer. But even this wall is going to fall. Every day a conscious and unconscious approximation is going on between the imported language and the native one. While the dialects are being influenced through books and schools, and the «Landsmaal» is every day adopting Dano-Norwegian words and phrases, other channels are leading the treasures of the popular language into the Dano-Norwegian. The dialects have come to be the eternal and inexhaustible fountain-head from which Norwegian writing and speech draw rejuvenescence and power of growth. The final result of this mutual influence will, we hope, be a uniform literary language with a genuine Norwegian tone. And, as is well known, we have examples showing that even in the field of language, the crossing may be something to be desired.

### BIBLIOGRAPHY.

HJALMAK FALK OG ALF TORP. Dansk-norskens syntax i historisk fremstilling. Kristiania 1900.

P. GROTH. A Danish and Dano-Norwegian Grammar. Boston 1894; Kristiania 1895.

K. KNUDSEN. Unorsk og norsk eller fremmedords avløsning. Kristiania 1879–81. AMUND LARSEN. Oversigt over de norske bygdemål. Kristiania 1897.

JAKOB LØKKE. Modersmaalets Grammatik til Skolebrug. Kristiania 1865.

ADOLF NOREEN. Geschichte der nordischen Sprachen (Grundriss der germanischen Philologie, hg. v. H. Paul, 2 Aufl. B. 1). Strassburg 1898.

J. C. POESTION. Lehrbuch der norwegischen Sprache. Wien [1890].

HANS ROSS. Norsk Ordbog. Kristiania 1889--95.

JOHAN STORM. Det nynorske Landsmaal. Kjøbenhavn 1888.

ALF TORP OG HJALMAR FALK. Dansk-norskens Lydhistorie. Kristiania 1898.

IVAR AASEN. Norsk Grammatik. Omarbeidet Udg. af «Det norske Folkesprogs Grammatik». Kristiania 1864.

<sup>---</sup> Norsk Ordbog med dansk Forklaring. Omarbeidet Udg. af «Ordbog over det norske Folkcsprog». Kristiania 1893.

JOHAN FRITZNER. Ordbog over det gamle norske Sprog. Omarbeidet Udg. B. 1--3. Kristiania 1886--96.

# LITERATURE

CCANDINAVIA's entrance into the historic arena of Europe was J accompanied by a vigorous development of force. The viking expeditions not only brought trouble and disturbance to the shores of the Baltic and the North Sea; they also occasioned unrest at home, but this was a fruitful unrest. The sense of their own power, and the impressions from foreign culture, awakened national feeling, and gave life to the creative impulse. In Denmark, however, the foreign element at once crossed the boundarylines: the kingdom of the Franks reached with its victorious religion through Saxony up to the borders of that land, and these gave way before it. Sweden, on the other hand, was shut off from the western seas, and reduced to intercourse with the Slav people of the lands surrounding the Baltic, whose culture had no fertilising power. By her free and westward-facing position, Norway was saved for a more independent development of both the Scandinavian and the foreign cultural elements. At the same time, the union of the country into one kingdom took place. But many of the mightier chieftains would not submit to the new condition of affairs, and in their viking-ships they sailed in search of new homes. They found it best to seek refuge in the Faroe Isles, and in the great, barren island they had just discovered, -Iceland. Here there gathered a number of haughty west-Norwegian warriors, and founded a new Norwegian colony, in which the national characteristics throve. Through the Norwegian vikings on British soil, Christianity came both to the mother-country and to the colony, at the end of the 10th century. The fruitful restlessness of minds, however, had succeeded in preserving the rich heathen mythology of the nation, the Ase faith, in imperishable metrical form. Fixed in heroic stanzas, the changing events of the age also found a sure way, through the bewildering oral traditions, down to a generation who had learnt the art of writing in the monks' schools.

Whereas in Danish and Swedish hands the pen, according to the custom of the age, would only write Latin, on Norwegian-Icelandic soil, it was practised from the very first in the use of the spoken language. It is recorded that in 1117, the Icelandic chiefs at their Althing (parliament), agreed to have the island's laws, which had been made 200 years before, after the pattern of those of the mother-country, the ancient law of the west Norwegian fjord districts, written in a book. This seems to have given the impulse to the learned priest, ARE FRODE (died 1148), to write down, in his native tongue, a critical account of what tradition related regarding events that had taken place both in Icelandic families and in the Norwegian royal house, from the time the Norwegian kingdom was founded and the island discovered. From this firm root, a luxuriant historical literature now rapidly sprang. Able men set themselves simply and plainly to write down the tales - sagas - that had lived their fresh life from generation to generation, handed down in commemorative verses of unchanging metre from the time when the events described took place. Not only did there spring up all over Iceland a number of individualising repetitions of the chieftain-stories - family sagas - of the district, but tradition had preserved circumstantial life-pictures of the famous princes of the mother-country, which were gradually, by the help of Are Frode's chronology, joined together into a connected history of the kingdom. The historiography in SNORRE STURLASON'S (died 1241) «Heimskringla» and STURLA TORDSSON'S (died 1284) «Kongesagaer» (Royal Sagas) attains a classic perfection both in composition and style. Abbot KARL JONSSON'S (died 1213) Thucydidean account of contemporary events, with the talented King Sverre as its hero, is also a master piece. In the course of time there appeared also a number of unhistorical sagas about ancient Norwegian legendary heroes, or of the heroes of the Central-European migration. To this last mentioned kind of saga belongs one about the Gothic king, Theo doric of Verona; it is founded upon the tales of north German sailors, and was written on Norwegian soil. At King Haakon

Haakonson's brilliant court, the work of translating contemporary romances of chivalry was prosecuted with great zeal (the middle of the 13th century). At the same period, a Norwegian scholar wrote, in elegant dialogue form, the remarkable hand-book of court customs, «Konge-speilet» (Speculum regale), which has since become a gold-mine of knowledge concerning the highly-developed culture of that period. Even theology was dealt with in the native tongue, and a large collection of homilies and legends in Old Norwegian have been preserved. It is significant that, next to history, it was the study of the national language that was the science most cultivated. Snorre composed a circumstantial manual of poetics, the Younger Edda: he was himself an able skald. The sagas are thickly sprinkled with «skaldekvad» (skald's lays); skalds were received as welcome guests at the court of the Norwegian kings. In later times, the skalds were almost exclusively Icelanders. But the oldest poetry in our ancient language originated to some extent in Norway. It consists of anonymous songs about the heathen gods, the Ases, and of the heroes of the oldest viking time, and their loves, and, to no small extent, of the heroes from the time of the Germanic migration (frequently the same personages whose exploits are sung in the German Nibelungenlied). This primitive Norwegian poetry is preserved in handwriting (Icelandic) of the 13th century, and, through the ignorance of later ages, has received the title of the Older Edda. The oldest poems in the collection were at any rate written before the introduction of Christianity, and are remarkable no less for the metallic ring of the language, than for the genuinely tragical pathos and deep worldly wisdom of their contents.

In the second half of the 13th century, the original force in both Norway's and Iceland's national culture culminated. The intellectual life of Europe made its way in, and took possession of all minds. It is a remarkable circumstance that just as the nation, in its most flourishing period, was united, by Iceland's joining the kingdom, into one political whole (1260), the fissure opened which was afterwards to separate the Icelanders from their Norwegian kinsmen; the fellowship in culture ceased, and the once powerful race became two separate nationalities, each going its own way towards a lengthened decadence. On account of the country's scattered population, and the absorption and extinction of the national aristocracy, the nation had no longer the power