

the railway from Kristiania to Eidsvold and in the state railways, and the cash in hand. This latter amounted to kr. 33,547,442, while the value of all the other assets, at the expiration of the financial year 1897—1898, was estimated at kr. 72,171,580. They yielded during the same year a revenue of kr. 3,322,600.

Those *means of communication* from which the state derives a portion of its revenue are railways, the post office, and telegraphs.

The average income from the working of the state railways, since the year 1888, has been as follows:

Financial years	Income kr.	Expenditure kr.	Net profits kr.
1880—1885, on an average . . . .	5,178,891	4,851,693	327,198
1885—1890, " " " . . . .	6,590,516	5,995,878	594,638
1890—1895, " " " . . . .	7,747,840	6,981,664	766,176
1895—1896 . . . . .	8,869,048	8,275,279	593,769
1896—1897 . . . . .	9,688,335	9,081,281	607,054
1897—1898 . . . . .	10,976,114	10,278,803	697,311

It will be seen that the income, as well as the expenditure and net profits, has been more than doubled during the last 18 years.

The receipts from the *post office*, which amounted to kr. 1,713,564 during 1880—1881, have since that time gradually risen to kr. 4,233,738, the amount realised during 1897—1898, that is to say an increase of nearly 150 %. The receipts which were formerly about balanced, gave a surplus of kr. 163,503 and kr. 241,711 during the years 1896—1897 and 1897—98 respectively.

The income from the *telegraph service* has gone up from kr. 932,846 in 1880—1881, to kr. 1,801,591 during 1897—1898, that is to say an increase of about 100 %. Up to 1894—95 the working expenses have exceeded the revenue; since that time the telegraph service has yielded a surplus, which during 1897—1898 amounted to kr. 232,036.

The *ordinary expenditure* during the financial year 1897—1898 is distributed among the following groups:

1. The royal family, Storting, government and civil administration . . . . . kr. 2,670,452
  2. Collection of taxes . . . . . » 2,426,776
- kr. 5,097,228

	kr. 5,097,228
3. Crown-land . . . . .	» 951,619
4. Judicial administration, police and prisons . . . . .	» 3,571,172
5. Churches and ecclesiastical matters . . . . .	» 1,033,804
6. Public instruction and objects of civilisation . . . . .	» 6,115,472
7. Trades . . . . .	» 2,291,557
8. Sanitation . . . . .	» 2,773,367
9. Public works . . . . .	» 21,553,386
10. Defences . . . . .	» 13,985,435
11. Foreign affairs . . . . .	» 822,712
12. Pensions . . . . .	» 667,757
13. Interest and reduction of national debt . . . . .	» 7,194,647
14. Sundry and casual expenses . . . . .	» 1,259,721
Total . . . . .	kr. 67,317,877

Under the heading of expenditure on *public instruction*, the chief item is represented by the expenditure on the primary schools. This expenditure in the year 1880—1881, amounted to kr. 1,422,171, and in 1890—1891 to kr. 1,670,925. Since that time the expenditure on this head has been gradually increasing, owing to the new regulation for primary instruction, and in 1897—1898 amounted to kr. 3,478,780, that is to say more than double the amount seven years before. At the same time the expenses of the schools for the blind, deaf and other abnormally developed individuals have increased from kr. 58,806 in the year 1880—1881 to kr. 488,479 in the year 1897—1898. For the schools for higher instruction the increase is less remarkable, being from kr. 769,060 in the year 1880—1881, to kr. 875,860 in 1897—1898. Upon the University in Kristiania, which is at the same time the highest educational establishment in the country, and its chief scientific institution, were expended in the year 1897—1898 kr. 838,375, as against kr. 511,611 in 1880—1881. The total expenditure on public instruction and objects of civilisation amounts to about 14 % of the total expenditure, if we calculate the expenditure of the state on a net basis.

The chief item in the expenditure of the Treasury is represented by the *public defences*, for which purpose, after deduction of the revenue obtained under this heading, the following sums have been employed:

Financial years	Ordinary kr.	Extraordinary kr.	Total kr.
1880—1890 on an average . . . . .	8,153,710	—	8,153,710.
1890—1895 " " " " " " . . . . .	10,386,530	1,163,508	11,550,038
1895—1896 . . . . .	11,807,345	5,549,729	17,357,074
1896—1897 . . . . .	12,436,098	10,013,482	22,449,580
1897—1898 . . . . .	13,707,327	5,550,388	19,257,715

Of the ordinary expenditure 71 % to 79 % have been applied to the land defences during the different years, and 21 % to 29 % to the sea defences. Of the extraordinary expenditure, the total amount whereof, from 1890—1898, was kr. 26,931,137, kr. 14,740,617 have been applied to the land defences, and kr. 12,190,520 to the sea defences. The ordinary expenditure for purposes of defence amounts to about 31½ % of the aggregate net expenditure, and the average amount of the ordinary expenditure falling to every individual of the population is kr. 6.42 and of all ordinary and extraordinary expenditure together kr. 9.02.

Next to the public defences, the largest item of expenditure is the *interest on and reduction of the national debt*. The national debt, as already stated, amounted to kr. 7,250,000 at the end of 1847. Since that time it has been gradually increased by a number of new loans, so that it amounted:

On Dec. 31st 1850 to . . . . .	kr. 14,305,200
" " " 1860 " . . . . .	30,918,800
" " " 1870 " . . . . .	29,754,800
" " " 1875 " . . . . .	51,228,000
" June 30th 1880 " . . . . .	105,626,200
" " " 1885 " . . . . .	108,638,800
" " " 1890 " . . . . .	115,357,500
" " " 1895 " . . . . .	146,895,000
" " " 1898 " . . . . .	180,171,260

Of this amount, kr. 245,472 — or, after deduction of some bonds belonging to the state itself, and not yet cancelled, — kr. 214,172 represent the rest of Norway's before-mentioned share in the Dano-Norwegian national debt. This debt is perpetual, while the whole rest of the debt is reimbursable by instalments.

The early public loans were chiefly connected with the settlement of the debt inherited from the union with Denmark, while the public loans raised during the last fifty years have been almost entirely applied to productive objects, especially to the construction of railways. The first of these loans, amounting to kr. 6,000,000, was raised during the year 1848 in order to assist those tradesmen who had come to grief during the crisis in the same year. Thereafter a loan of kr. 4,800,000 was raised in 1851 in order to be applied, partly to the formation of a working capital for the Norwegian Mortgage Bank, which was just then established, and partly as a subsidy to the construction of the first Norwegian railway, which was otherwise constructed with private capital.

In the year 1858 a loan of kr. 14,400,000 was raised to be chiefly applied partly to the construction of railways, and partly to increase the working capital of the Mortgage Bank. For railway purposes a new loan was raised in 1863 to the amount of kr. 6,000,000. An internal loan of kr. 1,000,000 having been raised in the year 1875 for defensive purpose, four loans were negotiated in the course of the seventies applicable to the further construction of railways. These were an amount of kr. 6,000,000 in 1872, in 1874 kr. 20,000,000, in 1876 kr. 23,971,200 and in 1878 kr. 30,872,000. Thereafter a loan was negotiated in 1880 to the amount of kr. 20,992,960, which was applied partly to the construction of railways, partly to increase the working capital of the Mortgage Bank, but chiefly to the conversion of the remaining rests of the public loans of 1858 and 1863, to the strengthening of the cash reserve of the Treasury, and to the covering of the deficits of the revenue during the latter part of the seventies. By this loan the aggregate amount of the national debt at the end of the year 1882 (for a part of the loan had only been called in during that year) had risen to kr. 108,332,000, implying an annual expenditure for interest, re-imbursment and commission of about kr. 5,975,000.

The next three public loans were all raised for the chief purpose of converting previous loans. The first of these was raised in 1884 and amounted to kr. 24,987,733 at 4% interest. It was applied to the redemption of the 4½% loans of 1872 and 1874, and a minor part of it served the purpose of a loan on the part of the Treasury to the state railways, and to



increase the working capital of the Mortgage Bank. The next loan, raised in 1886, for kr. 30,826,667 at  $3\frac{1}{2}\%$  interest, was exclusively taken up for the purpose of converting previous loans, and was applied to the redemption of the  $4\frac{1}{2}\%$  public loan of 1876, and almost all the permanent debt (the latter bearing an interest of  $3\frac{3}{4}\%$  to  $4\frac{1}{2}\%$ ). The third loan, negotiated in 1888 at the rate of  $3\%$ , and amounting to kr. 64,554,667, served the purpose of redeeming the  $4\frac{1}{2}\%$  public loan of 1878, and the loan raised in 1884 for purposes of converting. A minor part of it was applied to the increase of the working capital of the Mortgage Bank.

In 1890 the Treasury was charged with a loan raised in 1869 for the purpose of constructing two branch lines on one of the state railways (the Drammen and Randsfjord Line) amounting originally to kr. 1,600,000, and bearing  $5\%$  interest. The construction of railways having been resumed on a large scale in the nineties, a loan of kr. 10,000,000 was raised in 1892 and chiefly applied to this purpose, but partly also to granting loans to the state railways. Since that time loans have been raised in 1894, 1895 and 1896, amounting to kr. 39,675,733, kr. 12,072,000 and kr. 25,444,233, respectively. Of the first loan nearly half was employed in converting the state loan of 1880. Out of the rest of this loan and the loan of 1896, various minor amounts were employed in granting new loans to the state railways, in increasing the working capital of the Mortgage Bank and in increasing some special funds, while the rest of this loan is, or will be employed partly in constructing railways, partly in improvements relating to telegraphs and telephones. The whole of the loan of 1895 was employed in improving the defences of the country. Finally, in 1897, the remaining rest of the loan of 1886, kr. 30,136,819, was redeemed by means of a new loan for the same amount, bearing interest at  $3\%$ . Of the aggregate amount obtained by the before-mentioned loans, about kr. 136,500,000 have been applied to the construction of railways, about kr. 11,000,000 to the formation and increase of the working capital of the Mortgage Bank, about kr. 9,600,000 to loans granted to private individuals and the state railways of Norway, about kr. 6,000,000 to the laying of telegraph and telephone lines, and about 13,000,000 for defensive purposes.

The terminable national debt has, with few exceptions (e.g. the loan of 1895), been incurred by means of foreign loans nego-

tiated with individual banking-houses or syndicates of banks, which, as a rule, have subscribed the whole loan at a fixed rate, and thereafter, on their own account, have sold the bonds in the market. While the loans up to and including 1892, have as a rule been raised in the English, and partly in the German, market, the following loans -- excepting the loan for purposes of conversion raised in 1897, the bonds whereof were mostly retained by the original bond-holders -- have chiefly been raised in France.

With reference to the terms upon which the loans have been raised it may be noted that the nominal rate of interest has been 4 % for the loans contracted between 1825 and 1851, for the loans from 1858 to 1878,  $4\frac{1}{2}$  %, for the loans of 1880, 1884, 1892, 4 %, for the loans of 1886, 1894 and 1895,  $3\frac{1}{2}$  % and for the loans of 1888, 1896 and 1897, 3 %, and that, with the exception of the earliest loans and the loan of 1888, which was quoted at  $86\frac{1}{8}$  %, they have been raised almost at par, thus for the loan of 1895 ( $3\frac{1}{2}$  %)  $99\frac{2}{5}$  and for the loan of 1896 (3 %)  $98\frac{1}{4}$  %. The repayment of the loans is done by means of gradually increasing instalments, so that the aggregate amount of interest and instalment for every term is about the same. The interest and instalments are paid (for loans contracted since 1858) semi-annually and the repayment takes place (for the loans contracted since 1874) either by redemption of a certain number of bonds, drawn by lot, or by free purchase of bonds in the open market. The time of reimbursement has been, for the loans contracted prior to 1874, 10 to  $31\frac{1}{2}$  years, but for the later loans it has been lengthened, and has varied from 40 to 75 years. An exception to this rule is formed by the internal loan for purposes of defence, contracted in 1895, which is reimbursable in 24 years. The state has reserved its right, either at any time (in the case of some loans now redeemed) or after the expiration of ten (in the case of the loan of 1892, seven) years, after due notice, to pay the whole of the remaining principal or to increase the instalments on the loans. The interest and instalments on the loans raised in foreign countries are paid in more and more places, as the market in which the state sells its bonds is extended; thus, as far as the later loans are concerned, not only in Norway, but also in England, France and Germany, and in the case of a few loans, also in Sweden and Denmark.

The effective rate of interest for the loans contracted from 1848 to 1884 varied from 5.028 % (in the case of the loan of 1858) to 4.145 % (for the loan of 1884). For the loan of 1886 it was 3.715 %, for the loan of 1888, 3.661 %, for the loan of 1892 it rose to 4.0826 %, and finally for the four loans contracted since then, it has gone down to 3.728 %, 3.56 %, 3.099 % and 3.12 %.

At the end of the financial year 1897—1898, the national debt was distributed as follows:

The permanent debt . . . . .	kr. 245,472
The public loan of 1886 (1887) . . . . .	» 30,072,683
1888 . . . . .	» 62,247,018
1892 . . . . .	» 9,648,889
1894 . . . . .	» 39,010,965
1895 . . . . .	» 11,670,800
1896 . . . . .	» 25,444,233
The loan raised for constructing branch lines on the Drammen and Randsfjord railway . . . . .	= 840,000
An addition to the stock fund of the Mortgage Bank, for which 4 % bonds have been issued . . . . .	» 991,200
Total . . . . .	kr. 180,171,260

While on Dec. 31st, 1847, the national debt amounted to kr. 5.34 per head of the population, and on Dec. 31st, 1870, to kr. 17.08, this amount on June 30th, 1880, had been increased to kr. 55, and on June 30th, 1898, to kr. 83.72. About the same time, the national debt of Sweden amounted to kr. 57 per inhabitant, that of Denmark to kr. 96, that of Great Britain to kr. 288, and that of France to kr. 582.

The amounts paid in interest and instalments on the national debt, which in the year 1848 amounted to kr. 366,000, have been increased to such an extent by the subsequent rapid increase of the debt, that before the loans of 1858 and 1863 had been converted in 1880, they amounted to kr. 6,708,000. By means of the various conversions which took place in the eighties, and the complete redemption of a couple of earlier loans, the expenditure on this account was reduced to such an extent, that in the year 1889—1890 it amounted to only kr. 4,191,553. In the years

1890 to 1895 it amounted on an average to kr. 4,613,946, of which an average of kr. 549,638 represents the instalments. During the three following years these items of expenditure have been increased to kr. 5,500,207, kr. 6,882,326 and kr. 7,194,647 respectively, the instalments being represented by kr. 532,407, kr. 976,782 and kr. 1,203,824 respectively. The expenditure caused by the national debt in the year 1897—1898 amounted to about  $16\frac{1}{2}\%$  of the net budget, an amount equal to kr. 3.32 per head of the population. After the expiration of the financial year 1897—1898, in the autumn of 1898, a new public loan was raised amounting to kr. 20,880,000, for the purpose of covering extraordinary grants for defensive purposes made in 1896—1898. This loan was issued at the price of  $96\frac{3}{5}\%$ , bearing interest at  $3\frac{1}{2}\%$  (making the effective interest  $3.895\%$ ) and redeemable in the course of twenty years.

The Norwegian Treasury has no floating debt.

### MUNICIPAL FINANCES.

Concurrently with the state, the municipalities play an important part in the finances of the country, in as much as, in connection with the state, they defray the expenses of certain public institutions and agencies, as for instance education, the police and sanitation, in the towns the harbours, and in the rural districts the highways; while they take entire charge of some branches of public activity, as for instance the relief of the poor and, especially in the towns, the streets, waterworks, fire department, etc.

From 1884 to 1892 (the first and the last years for which complete statistics exist) the expenditure of the aggregate municipalities has gone up from kr. 22,826,402 (whereof kr. 11,537,233 were expended by the towns and kr. 1,289,169 by the rural districts) to kr. 32,079,169 which are distributed in the following manner:

	Towns.	Rural districts.	Whole country.
Judicial and Police system . . . . .	980,290	252,385	1,232,675
Ecclesiastical matters - . . . .	761,494	641,881	1,403,375
Public instruction . . . . .	3,819,229	4,584,087	8,403,316
Relief of the poor. . . . .	2,855,875	4,458,571	7,314,446

	Towns	Rural districts	Whole country
Sanitation and public health	416,634	593,806	1,010,440
Means of transit and public works . . . . .	3,409,097	2,034,132	5,443,229
Sundry measures for the public benefit . . . . .	1,024,890	485,933	1,510,823
Interest on loans . . . . .	1,718,210	450,025	2,168,235
Contribution to railways . . . . .	248,760	428,860	677,620
Administration . . . . .	464,391	328,292	792,683
Other expenses . . . . .	1,452,614	669,713	2,122,327
	17,151,484	14,927,685	32,079,169

The largest item of expenditure for the municipalities, as it appears from the table, is education, to which 22.27 % was devoted in 1892, in the towns, and in the rural districts as much as 30.71 %, and for the whole country 26.20 % of the total expenditure. While the expenditure on education in the rural districts is almost exclusively for the benefit of the primary schools, in the towns about one fourth of the expenditure is for the benefit of other schools. The two other largest items of expenditure, the relief of the poor and the means of transit together with the public works, represent at the same time in the towns 16.65 % and 19.88 %, in the rural districts 29.87 % and 13.63 %, and for the whole country 22.80 % and 16.97 % respectively of the total expenditure of the municipalities.

In 1884, the receipts of the municipalities were kr. 23,103,491, of which kr. 11,847,191 was for the towns, and for the rural districts kr. 11,256,300. In 1892 they had increased to kr. 28,046,365, which were distributed in the following manner:

	Towns kr.	Rural districts kr.	Whole country kr.
Taxes and rates . . . . .	10,825,536	10,813,616	21,639,152
Income from real estate and other assets . . . . .	2,157,116	833,436	2,990,552
Grants from the state, of public funds, donations, etc. . . . .	810,845	1,613,052	2,423,897
Sundry . . . . .	834,321	158,443	992,764
Total	14,627,818	13,418,547	28,046,365

Of the receipts of the year 1892, 10.66 % represent income from real estate and other assets, 12.18 % various items other than the taxes, while the last-named were 77.16 %, and, for the towns and rural districts separately, 74.01 % and 80.59 %, respectively. These items have increased from kr. 4,145,000, during the year 1852, to 11,621,000 in 1872 and, as mentioned above, to kr. 21,639,152 in 1892. As with the state, so also for the municipalities are the taxes the chief source of revenue. But while the indirect taxes play the most important part in the state's finances, it is different with the municipalities where by far the larger part of the taxes is collected in the shape of direct taxes on movable property and income, as well as on real estate.

By the acts relating to municipal taxation, direct taxes can be levied, with certain limitations, either on real estate, personal property and income or on personal property and income alone. As a rule both bases of taxation are used simultaneously. Of the total amount of taxes levied in the year 1894, the tax on real estate represented 24.66 % in the towns, and in the rural districts 33.36 %, and the tax on personal property and income in the towns 75.34 % and in the rural districts 66.64 %. The tax on real estate in the towns is imposed upon buildings and real property of every kind, and in the rural districts on registered properties and on various industrial establishments. Taxes are paid in a certain ratio of the value of the property, either according to the property register or by special assessment, without reference to debt encumbering the property. The tax on personal property and income is, as far as the income is concerned, calculated on the rest of income remaining after deduction of interest on debt and of all expenses which can be estimated as having been incurred for the purpose of earning the income. The tax levied on personal property should be no more than  $\frac{1}{30}$  and no less than  $\frac{1}{70}$  of the tax levied upon the same amount of revenue. A certain amount of every income must be free of taxation. This amount depends upon the extent to which the party assessed is liable for the support of other people, and — although in the rural districts only within certain limitations — on the amount of his income. The tax is levied on all income subject to taxation in the same ratio, no matter what the amount of the income may be.

As in the case of the direct tax paid to the state Treasury, nobody is compelled to give any information about his own pro-

erty or income. The tax is assessed by municipal boards of assessment. The direct taxes in question yielded, in 1892, a revenue of kr. 19,519,438, of which the towns' share was kr. 9,069,202 and that of the rural districts kr. 10,450,236. The taxes assessed in 1895 were kr. 11,117,887 in the towns, and in the rural districts kr. 11,734,472, total, kr. 22,852,359, and they were distributed as follows:

	per inhabitant	per taxpayer	per 100 kr. of estimated personal property	per 100 kr. of estimated income	per 100 kr. of taxable income
	kr.	kr.	kr.	kr.	kr.
In the towns . . . . .	23.28	101.13	1.71	6.80	14.25
In the rural districts . . . . .	7.70	27.60	1.13	5.95	12.92

The other taxes and rates paid to the municipalities are: license fee for the sale and retailing of ardent spirits, wine and beer; license fees paid by different trades, dog tax, certain ecclesiastical dues and, for the towns especially, not including certain unimportant contributions, an additional tax of up to 1 % of all customs receipts levied upon goods imported into the town, tonnage dues, paid by vessels loading or discharging in port, wharf dues, etc. The municipalities, on the other hand, do not collect any tax on consumption. These taxes and rates, in the year 1892, yielded a total amount of kr. 2,119,714 (kr. 1,756,334 being collected in the towns, and kr. 363,380 in the rural districts) and they represented 9.80 % of the aggregate amount of taxation, the remaining 90.20 % being represented by the direct taxes on personal property, income and real estate.

The assets of the municipalities, which chiefly consist of real estate, and to a smaller extent of outstanding money and other assets, were, at the end of:

Years	Towns	Rural districts	Total
	kr.	kr.	kr.
1884 . . . . .	54,474,800	38,750,742	93,225,042
1892 . . . . .	72,490,432	46,444,065	118,934,497
1895 . . . . .	82,037,220	49,542,094	131,579,314



The debt of the municipalities, consisting of loans, amounted to:

At the end of	Towns	Rural districts	Total
	kr.	kr.	kr.
1884 . . . . .	28,300,177	8,139,675	36,439,852
1892 . . . . .	36,716,628	11,269,677	47,986,305
1895 . . . . .	49,867,681	14,578,033	65,445,714

To this debt must be added the sums which the municipalities owe for the construction of railways, which in 1884 amounted to kr. 3,740,257, but at the end of 1895 had gone down to kr. 744,787. The aggregate debt of the municipalities thus in 1895 amounted to not quite half the amount of the total assets.

## BANKING

THE right to issue paper money is reserved to the Bank of Norway (*Norges bank*). This bank belongs to a private corporation, based on shares; its management and operations however, are fixed by special acts given by the state for that purpose, and its managers are publicly appointed. This bank, as mentioned p. 231, was established in the year 1816, as a step towards placing the currency of the country on a stable basis, and it commenced its operations in the year 1818, but could not under the economic conditions then existing fulfil its duty of redeeming its notes at their face-value in silver, for which reason this obligation was immediately suspended. The consequence was a considerable fall in the value of the notes, which in 1821 was reduced to almost one half of their face-value, but thereafter again gradually rose, until the notes, beginning with the year 1842, were again redeemed in full, and have since then continued to be so without any exception.

The right of the bank to issue paper money was based, until the year 1892, upon a mixture of the proportional and the differential systems, as the bank, on its original capital of kr. 10,009,910, could issue notes at a ratio of 5:2, and, on that part of the capital which was afterwards formed, amounting to kr. 2,500,000, and on its reserve fund, which since the end of 1892 has amounted to kr. 5,416,244, at a ratio of 3:2, while for the rest of the coin reserve (the so called extra-fund) notes could only be issued for an amount corresponding to the value of the metal. Thus it will be seen that as long as there was an extra fund in existence the differential system obtained; as

soon as the extra fund was exhausted, the proportional system commenced to take effect, but this has not happened since 1870. Since 1893, the differential system pure and simple has been established, the bank now being authorised to issue notes to the amount of kr. 24,000,000, or less, over and above its stock of gold. This limit may, as an exception, be exceeded, provided, however, that any excess which has taken place in the course of a month be settled before the end of the next month. This permission has been made use of by the bank twice in the year 1899.

The coin reserve of the bank and its note circulation amounted to kr. 16,608,000 and kr. 28,388,000 respectively, at the end of 1870, at the end of 1880 to kr. 33,721,000 and kr. 38,714,000, at the end of 1890 to kr. 38,896,000 and kr. 49,671,000, and at the end of 1898 to kr. 44,324,000 and kr. 63,416,000.

Besides issuing paper money, the bank also does business as a loan, circulation, discount and deposit bank. It accepts money on call, but does not pay any interest thereon, and thus does not compete with the other banks and savings banks which chiefly carry on their business by means of borrowed money. The money placed in the Bank of Norway on call, amounting at the end of 1898 to kr. 9,300,000, may most appropriately be considered as cash in hand for some of the other banks and for the Treasury.

The manner chiefly adopted by the bank in order to make its means productive of revenue is by lending them in return for bills of exchange and «vexelobligationer» \*) and also by lending them against deposit and by placing them in interest-yielding securities and drafts on foreign countries.

The bank is obliged, without compensation, to take charge of the money transactions of the state, and of the exchange of subsidiary coin incumbent on the Treasury. In accordance with certain rules, the net income of the bank is divided between the stock-holders, the Treasury, and the reserve fund. The dividend paid to the stock-holders in the year 1898, amounted to  $9\frac{1}{5}\%$ . The head office of the bank was formerly at Thronhjelm, but

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\*) These are a peculiar kind of debenture, which, as a rule, are issued on personal security by means of endorsement, and require repayment within four or six months from date of issue; they are, however, renewed at maturity by payment of an instalment, so as to be gradually repaid in the course of a few or many years.

in 1897 moved to Kristiania. The bank has, besides, twelve branch offices in the most important towns in the country.

At the end of 1898 the bank had:

Coin reserve . . . . .	kr. 44,324,424
Notes and «vexelobligationer» . . . . .	» 37,641,170
Loans on mortgage. . . . .	» 4,915,933
Drafts on foreign countries . . . . .	» 2,922,205
Interest-bearing securities. . . . .	» 2,653,075
Other assets . . . . .	» 464,441

Total kr. 92,921,248

The *Mortgage Bank of the Kingdom of Norway* is a state institution which was established in the year 1851, and serves the purpose of granting loans on real estate. It has a capital which amounted to kr. 15,000,000 at the end of 1898; of this amount kr. 13,010,000 have been furnished by the state, which receives 4 % interest on this advance. The bank has, besides, a reserve fund which at the same time amounted to kr. 1,000,000. Otherwise the bank procures the means of which it disposes, by selling interest-bearing bonds payable to the bearer, the total amount whereof must not exceed eight times the amount of the capital. These bonds are issued in annual series and are reimbursable in the course of 30 years by means of increasing instalments. The interest of the series now current (i.e. those issued since 1885) is 4 % for the two series 1893—1894, and for the others 3½ %. At the end of 1898 the total amount of the outstanding bonds was kr. 119,493,200, of which a little more than 70 % are placed in foreign countries.

One fourth of the capital of the bank may be invested in Norwegian state bonds, while such an amount of the assets of the bank as it is considered necessary to keep ready at disposal may be used for discounting purposes. The rest of the means at the disposal of the bank is loaned against mortgage on real estate. The mortgage loans are repaid in the course of forty years in increasing instalments. The interest charged by the bank on these loans amounted in 1898 to 4 %. The total amount of the mortgage loans of the bank at the end of 1898 was kr. 122,824,300, of which kr. 24,523,700 have been granted as loans on town property, and kr. 98,300,600 on country property.

The safe keeping and productive investment of smaller savings are partly effected through the common banking institutions, partly, and more especially, by the means of the *savings banks*. In order to protect the depositors, some general rules have been established by law, relating to the organisation and business of these institutions. For instance their plans must be sanctioned by the king, and they are under the supervision of the Finance Department. They must have a minimum working-capital and the surplus resulting from the operations of any bank must be added to its fundamental fund until the latter reaches one tenth of the amount of the obligations of the bank. The excess may be employed for purposes of public utility. The plans of the banks are not sanctioned unless they contain satisfactory stipulations, guaranteeing an appropriate and sufficiently controlled activity. The money deposited is chiefly made productive either by loan on mortgage of real estate, or on personal security with two or more endorsements. To these transactions, however, legislation has set certain limits. As the savings banks are primarily calculated to make smaller savings productive, they do not, as a rule, accept deposits beyond a certain amount fixed in the plan of the bank. The deposits are made on the conditions peculiar to savings bank, i.e. that they cannot be taken out except after notice having been given a certain time in advance, the length of the time being proportionate to the amount that is to be paid out.

The first savings bank in Norway was established in the year 1822; in the year 1850 the number of savings banks had been increased to 90, and in 1897 to 394. The number of the depositors (or rather of bank books) and the amount of money deposited was at the end of:

	Number	Number per 1000 inhabitants	Amount deposited	Amount deposited per inhabitant
1850	52,811	37	kr. 16,721,000	kr. 11.90
1870	194,839	112	» 81,667,000	» 46.90
1890	470,799	236	» 194,141,000	» 97.10
1897	586,606	278	» 251,615,000	» 119.20

Out of the aggregate number of depositors on Dec. 31st 1897, 488,705, or 81.6 %, had deposits of less than kr. 500, and 107,901, or 18.4 %, of more than kr. 500. Of the amount deposited, 17.1 % represented deposits of less than kr. 500, and 82.9 % larger deposits.

Each depositor had, on an average, kr. 429, and each depositor of smaller amounts than kr. 500, kr. 90, and those of larger amounts, kr. 1933.

The property owned by the savings banks and the aggregate capital administered by them were at the end of:

1850 . . . . .	kr. 1,762,524	kr. 18,557,352
1870 . . . . .	» 9,628,584	» 91,295,188
1890 . . . . .	» 25,303,275	» 220,462,133
1897 . . . . .	» 33,151,488	» 285,671,115

The capital administered by the savings banks at the end of 1897 was invested in the following manner:

In readily convertible securities . .	kr. 30,097,818	or 10.54 %
In loans on mortgage, or loans on «vexelobligationer» fully secured by real property . . . . .	» 85,493,422	» 29.93 %
Loans on «vexelobligationer» secured by other collateral deposit or per- sonal endorsements . . . . .	» 120,564,018	» 42.20 %
Loans on notes . . . . .	» 21,945,768	» 7.68 %
Deposited in other banks, or other- wise invested . . . . .	» 27,570,089	» 9.65 %
Total kr. 285,671,115		or 100 %

The interest paid to the depositors by the savings banks has as a rule been between 5 % and 3 %. During the ten years 1889 to 1898 the average has been 3.71 %.

As donations for purposes of general utility, the savings banks have contributed on an average kr. 571,742 annually during the ten years 1888 to 1897.

The general banking business, discounting of notes and other debenture, loans on deposit or personal endorsement, purchase and sale of foreign drafts and coin, securities, etc., is carried on, not only by some private banking houses, but more especially by banks founded on shares, of which the first was established in 1848. In 1897 their number was 39. These banks, in their operations, handle not only their own capital stock, but also means that have been deposited on call, either without interest, or at a very low rate of interest, and to a still greater extent means that have

been deposited on the same conditions as those prevailing in savings banks, i.e. subject to notice in advance. The paid up capital, the reserve fund, and the guarantee fund of the banks based on shares at the end of 1897 were kr. 32,207,000, their deposits kr. 178,771,000, and their loans granted against notes, «vexelobligationer», etc., kr. 125,389,000.

Of the deposits there remained on account current kr. 13,732,000 and on other accounts kr. 165,039,000, the latter amount chiefly consisting of money deposited on the conditions peculiar to savings banks.

The rate of discount in Kristiania, during the 10 years 1889-1898, has been on an average, 4.35 %.



## INSURANCE

THE first Norwegian fire insurance company, the «Kristiania brandassurancekasse», was formed in 1752, but had already ended its labours in 1827. In 1767, the government, in addition to this, established a mutual company — «De norske kjøbstæders almindelige brandforsikring», in which all town householders were obliged to insure. In Kristiania, however, the householders might also employ the local company. In the country there was no compulsory insurance; and it was done away with in the towns in 1845, when «Landets almindelige brandforsikringsindretning for bygninger» (the General National Institution for the Insurance of Buildings against Fire) was divided into two, one division for the towns, and one for the rural districts.

This institution, which is under government management, and is wholly mutual, has taken over most of the building insurance of the country, and at the end of 1898, its liabilities amounted to 1094 million kroner, of which 736 million were in the town division. Besides this large institution, there have been, since 1838, when «Det norske brandassuranceelskab paa varer og effekter» (the Norwegian Company for the Insurance of Goods and Chattels against Fire) — the first Norwegian company for the insurance of movable property — was founded in Bergen, a small number of Norwegian joint-stock insurance companies (at the close of 1898, 9 with a paid-up capital of about 5,640,000 kroner, and liabilities to the amount of more than 600 million kroner), and in the rural districts a large number of small mutual fire insurance companies (in 1895, 172 companies with total liabilities amounting to 301 million kroner, of which about  $\frac{2}{3}$  is on buildings, and the remainder on

movable property). A large number of foreign insurance companies are represented in various Norwegian towns and rural districts.

One very important branch of Norwegian insurance is *marine insurance*. Previous to 1837, when «Den første norske assuranceforening» (the First Norwegian Insurance Union) was founded in Langesund, Norwegian ship-owners had been obliged to go for insurance, as long as the union existed with Denmark, to a company in Copenhagen, established in 1726, and in the enjoyment of a monopoly, and after 1814 chiefly to Hamburg companies. The first Norwegian company was mutual. Subsequently several Norwegian mutual marine and freight insurance companies were founded; but business, both as regards these and the marine insurance joint-stock companies, has declined considerably of late years on account of the numerous shipwrecks and the high premiums resulting therefrom. A number of Norwegian vessels are now sailing uninsured. At the end of 1897, according to the official statistics, there were 26 mutual marine and freight insurance companies, with net liabilities of 94.2 million kroner, as against 134.4 million in 18 companies in 1892. In the last-named year, there were 11 Norwegian marine insurance joint-stock companies (the oldest founded in 1847) with a net insurance of 168 million kroner (in 1891, as much as 192.6 million), as against 6 and 111 million respectively, on the 31st Dec. 1898. Most of the Norwegian marine insurance companies have had a common inspection institution, since 1864, in the *Norske Veritas*.

*Life insurance* is now very general among the middle-class town population, while in the country and among the working-classes in the towns, it is little practised. The large coast population, who to a great extent earn their livelihood by fishing and navigation, have generally very irregular incomes, and this fact, combined with a lack of talent for saving, places serious hindrances in the way of general life insurance. In the country, the system of retaining a pension on giving up the property to the heir, is a barrier to life insurance. Our first life insurance company, the «Norske livrenteforening» (Norwegian Annuity Association, founded in 1844), carried on business until 1871 upon a regular tontine system, but has since been worked on the ordinary principles of life insurance companies. In 1847, the «Kristiania almindelige gjensidige forsørgelsesanstalt» (Kristiania General Mutual Provident Society) began business with subscribing annuities (until 1890),

and since then several larger and smaller companies have been started, so that the official statistics at the end of 1898 give the number of life insurance companies as 11, with an annual premium income of 4.4 million kroner.\* In addition to these, there are several foreign companies doing business in Norway.

Norway has only one private *accident insurance* company of her own — «Sigyn» — established in Kristiania in 1885. In addition to this, since 1895, there has been a state insurance union («Rigsforsikringsanstalten»), in which all owners of factories and other works where the hands are liable to accident, are obliged to insure their work-people against accident in their work. This insurance is a heavy burden upon our industrial undertakings, but has been of great benefit to the work-people (see pp. 212, 213).

## ECCLESIASTICAL ORGANISATION

**S**INCE 1537, the Evangelical Lutheran religion has been the «public religion of the State», and is generally designated -- in legislation also -- the «Norwegian Established Church» (den norske statskirke). Its symbol is formed of the three œcumenical creeds (the Apostolic, the Nicene-Constantinople and the Athanasian), and of the original Augsburg Confession of the year 1530, and of Luther's shorter catechism. By public agency religious instruction is given in the government and municipal schools; and the church holy days are protected by legislation. The king must always belong to the established church, as also the members of his council, and the clerical office-bearers, the university professors belonging to the theological faculty, and upon the whole those whose duty it is to give religious instruction, and all superintendents or inspectors of the primary schools, and principals of schools for the higher public education. All parents belonging to the established church are obliged to bring up their children in the same. Jesuits are excluded from the kingdom. For the rest, freedom for the public practice of their religion is granted to all who profess the Christian religion, including monks and nuns, Unitarians and Jews, if not transgressing the limits of the law and decency. They may form congregations with their own priests or directors; but Divine service or religious gatherings that do not come under the head of family worship, must not be held with closed doors. The number of Christians outside the established church is comparatively trifling; about 1000 Roman Catholics, 4200 Baptists, 8200 Methodists; the Evangelical Lutheran Free Church numbers 8200 members, the Adventists, 560. There are also a few hundred Quakers, Jews and Mormons. In addition

to these, there are a few who have left the established church without joining any other sect. In 1891, 30,685 of the population belonged to various dissenting communities, or were otherwise outside the established church. The Salvation Army maintains a fairly neutral position as regards the various creeds, and cannot therefore be reckoned as a community outside the established church, from which a minority have withdrawn. It numbers 3418 members and 309 officers.

The kingdom is divided ecclesiastically into 6 dioceses or bishoprics (stifter, bispedømmer), and each diocese into deaneries (provstier), of which there are 83. The deaneries are again divided into several livings (prestegjeld, sogne), whose number at present amounts to 478; and these, especially in the country, are divided into a principal parish and one or more sub-parishes, each with its church or chapel-of-ease. The total number of parishes at the present time is 956.

The highest authority in the affairs of the established church is in the hands of the king; but in the establishment of the legal position of the members of the church to the state or the church, and with regard to the organisation of the church, especially in financial matters, laws are required, and thus the co-operation of the Storting. There is no exclusively ecclesiastical representation, such as synods, and the like. The king appoints the bishops, as well as all the rest of the clergy. At the appointment of bishops, a right of nomination is given to the clergy, the theological university professors, and the other bishops, which is not, however, obligatory on the king. The deans are always parish priests as well, and are generally chosen by the priests of the deanery. They are appointed by the king.

The king also ordains all the public services of the established church, and all meetings and assemblies about religious matters, and sees that the public teachers of religion conform to the prescribed rules. This authority is exercised through one of the government departments, the Ecclesiastical and Educational Department, whose head is the king's responsible special counsellor in these matters. The Ecclesiastical Department has the administration of the considerable sums that have been realised by the sale of real property belonging to the clergy and the monasteries from Roman Catholic times. The capital consists of the so-called «Op-lysningsvæsenets fond» (Fund for the Advancement of Education), the principal fund, of about kr. 17,800,000, whose annual yield, besides what belongs to certain offices, is employed for the benefit

of the clergy, and the advancement of education. Among other funds, there is the Clergy Widows' Pension Fund, formed by the sale of the clerical estates formerly appropriated to the maintenance of the widows of the clergy, and amounting to kr. 4,170,000, the Ground-rent Fund, which originated in the redemption of certain ground-rents belonging to the clergy, and amounts to kr. 1,429,000, the Fish-tithes Fund, produced by the redemption of the former tithe of the fisheries, and amounting to kr. 4,000,000, and the various Official Residence Funds, kr. 4,016,000 in all, formed by the sale and reduction of civil and ecclesiastical official residences, most of which, as also the military official residences, have formerly been church property. The total amount of capital thus administered by the Ecclesiastical Department is nearly 31½ million kr.

The bishops stand immediately under the Ecclesiastical Department as the highest superintendents of the spiritual affairs of the diocese. During their circuits in the diocese, they visit a third of the parishes annually. The bishop and the prefect in the diocesan town, together constitute the diocesan committee (stiftsdirektion), or the church's superintending body. This board has especially to do with matters that concern the pecuniary conditions of the clergy, and church matters, while the bishop alone is the highest authority in purely spiritual cases.

Many parishes both in the towns and in the country are so large that besides the parish priest (sogneprest), several other priests are appointed to take charge of them. These priests are generally called perpetual curates (residerende kapellaner).

The remuneration of the Norwegian clergy has undergone important changes by a series of organisation acts from 1897. As far as the bishops are concerned, the changes are only slight; some of them are paid entirely or partially out of government funds according to a vote on the budget, as the state appropriated, at the time of the Reformation, the greater proportion of the episcopal tithes. The rest of the revenues are made up of perpetual rents paid by former church lands. The parish priests and the perpetual curates in the country have the use of the glebes, and in default of these, they receive an equivalent in money, and in the towns allowance for house-rent. Among fixed sources of income in the country livings, there are the parson's tithes and several other charges, partly ground-rents and partly more personal pay-

nents chargeable to the owner or the holder of registered land, of which the collecting, however, is left to the general tax-collector. Most of the rents apart from the tithes, can be commuted at the option of the municipality by municipal compensation, and thereby be transferred to the rate-payers in general, which is largely done. As far as the town clergy are concerned, these fixed sources of income, other than allowance for house-rent, are of comparatively minor importance. The uncertain revenues are made up principally of the fees for the ecclesiastical services (stole-fees), and of voluntary offerings. For these a minimum rate was formerly fixed as regards the country, while spontaneity ruled in the towns. By one of the acts of 1897, it was resolved that no payment at all could be made for certain of the ecclesiastical services (visitation of the sick, and communion), nor yet by members of the congregation for the others (baptism, confirmation, marriages, funerals) when they were performed in connection with the ordinary services, or on other days especially appointed by the king. In other respects, the fees are to be in accordance with regulations made by the Municipal Council with the approbation of the Ecclesiastical Department. Three fourths of the decrease thus produced in the revenues were made up to the clergy out of the public funds of the parish or municipality in question. The congregations can also resolve that all payment for the religious services shall be done away with for the members of the congregation, and replaced by a similar compensation, which is largely done, especially in the towns. The act has also given congregations an opportunity of making a similar resolve with regard to the discontinuance — though in return for full compensation — of the offerings, which is also done in many country parishes, and comparatively even more frequently in the towns, particularly the larger ones. Kr. 6000 is fixed as the maximum income of priestly offices in towns, without regard to the income from the official residence or to allowance for house-rent; and in the country 4000 kr. The surplus, where it is not employed for additional religious offices, is to go towards a salary-fund belonging to every congregation, and to which is also assigned income in other ways, and of which the proceeds shall serve, among other things, to gradually assume the compensation obligation resting upon the municipal funds as explained above. The minimum income fixed for independent church posts is 2400 kr. without regard to the income from the official residence or the allowance



for house-rent, and the deficit is made up by the «Oplysningsvæsenets fond»; but if the above-mentioned income brings the receipts of the office up to 2800 kr. or more, no additional sum is given.

According to one of the acts of 1897, the churches and church-yards in Norway will all, with a very few exceptions, in a short time belong to their congregations. By laying by the church tithes, which are to be discontinued after some years, and by the addition of the royal tithes, the former bishop's tithes (the greater part of which the state appropriated at the Reformation, and which are to be discontinued at the same time), a church-fund will be formed, of which the proceeds will go towards the maintenance, fitting-up, etc., of the church. The deficit will be made up by the parish or the municipal funds. The chief superintendence of the churches falls to the king, and no church can be erected, or church-yard laid out, nor either of them altered or done away with without his consent. The diocesan board (see above) superintends the churches in each diocese, and the superintendence of the local church is in the hands of the priest of the parish and two men appointed by the Municipal Council.

Amongst the religious efforts, most of which call forth general interest and liberality, may be mentioned, besides the more local associations for the care of the poor and sick, the missions to the Jews and the heathen. These are principally concentrated in the following societies and associations: 1) the Norwegian Missionary Society (the oldest, founded 1842, and the largest); field of labour, Zululand, Natal and Madagascar, 61,948 Christians, 48,161 school-children, annual income about 500,000 kr., about 80 workers in the mission-field; 2) the Norwegian Church Mission by Schrøder (a branch of the foregoing, established in 1873), 3 workers in Zululand, last year's income 8380 kr.; 3) the Santhal Mission in India (also supported by Sweden and Denmark), 2 Norwegian missionaries, 9721 converts, annual income from Norway, about 40,000 kr.; 4) the Norwegian Lutheran China Mission Association (founded in 1891), 12 workers, about 30 converts, annual income about 50,000 kr. The other missions are not permanently organised.

In conclusion is given a survey of the labours of the Norwegian Bible Society (founded in 1816), for the last 5 years. In 1894, 27,438 Bibles were disposed of; in 1895, 30,823; in 1896, 40,524; in 1897, 47,017, and in 1898, 54,868.

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# EDUCATION

## I. ELEMENTARY INSTRUCTION.

**T**HE development and improvement of the primary schools has been an object of the nation's endeavours for the last century. It has been clearly seen that in a democratic community like ours, it is to the interest of individuals, as well as of society at large, to improve the education of the people.

By a royal ordinance of 1739, an endeavour was made to introduce into the country a general school-attendance and a permanent school for each church parish. The measure, however, was never put into practice. On account of the scattered population, the long distances, and the lack of teachers, it was left, by an ordinance of 1741, to the several parishes with the approval of the magistrates, to arrange their school affairs «according to their opportunities and the situation of the land».

The primary schools of the towns in the beginning of the century were called, and arranged with the intention of being, «poor schools». In certain towns, however, there were primary schools of a somewhat different stamp. A considerable improvement was made by the act of 1848, which arranged the elementary instruction in the towns.

A general arrangement of the rural elementary schools had already been come to by an act of 1827. By this act, it was determined that near every principal church in the country, there should be a permanent school, but otherwise ambulatory schools. Both before and long after the act of 1827, the priests were the leaders in school matters, each in his own parish: and it is owing

in a great measure to them that, in spite of the numerous difficulties of all kinds that had to be overcome, the school has made continual progress. The act of 1827 was replaced by an act of 1860, which enjoined the establishment of a permanent school in every school circle, fixed the minimum of hours for instruction, introduced several civil subjects, improved the condition and training of the teachers, and arranged the management and superintendence of the school in a better way.

After the acts of 1848 and 1860, progress was more rapid especially after the state (from the beginning of the seventies had begun more and more to give grants to the primary schools. The acts of 1848 and 1860 were in their turn annulled in 1889, by the acts now in force for primary schools in the country and in the towns, whereby the primary schools of our country have been considerably improved.

The development of the school has always been in a decidedly democratic direction. From a school for the poor, it has risen to a *national* school; from a church school to a school in which a general education is given, which ought to be common to all members of society. The local authorities and the parents have acquired a decided influence upon the arrangement of the school, and an organic connection has been brought about between the primary school and secondary education.

#### A. THE ARRANGEMENT AND AIM OF THE PRIMARY SCHOOL.

The Norwegian primary school has a seven years' course, adapted for children between 7 and 14 years of age. It is free to all children in the kingdom. There is no obligation to attend the public primary school; but the *obligation of education* exists, in that every child between 8 and 15 in the country, and between 7 and 15 in the towns, that is not in receipt of instruction calculated to bring it up to the standard of the primary school instruction within its 15th year, is referred to the primary school, and the attendance of the child there can be enforced by a fine imposed upon the parents or guardians.

The primary school in each municipality is governed by the School Board (*skolestyret*), which consists of a priest, the chairman of the Municipal Council (or one of the aldermen), one of the teachers chosen by the body of teachers, and as many other members

(men or women) chosen by the Municipal Council as the Council itself determines. In the towns, at least one fourth of the members of the School Board chosen by the Council, are chosen from parents who have children in the primary school. The School Board elects its own chairman. It appoints the teachers, gives detailed instructions as to the arrangement of the primary schools of the municipality, draws up the school plan, with the plan of instruction and division of lessons, and sends each year to the Municipal Council an estimate of the sums supposed to be required to meet the expenses of the school for the coming year. It is also the duty of the School Board to see to the education of children who are not pupils in the primary school. The School Board appoints a *Board of Inspection* for every primary school, consisting of one member of the School Board as chairman, and three members (men or women) chosen in the towns by the parents of children attending the school, and in the country by such parents and the rate-payers in the school district. This committee maintains a constant supervision of the school, and takes care that there is good attendance and order. It gives to the School Board the information and advice that are required, and in the country is to have the opportunity of giving its opinion before the appointment of teachers. The School Board and the Board of Inspection in the country may also lay matters connected with the primary school before a *district meeting*, i.e. a meeting of the ratepayers of the district, and those parents of children attending the school, who live in the district. Some questions must be discussed at the district meeting before they can be decided, e.g. whether corporal punishment may be administered, changes in the district regulation, etc. In the large towns, the School Board appoints *school inspectors*, and where there are several schools, as a rule, a *head-master* to each.

For every county, there is a *County School Board*, consisting of 3 members chosen by the County Council. The County School Board has to take charge of the common educational matters of the county, and to make proposals to the County Council concerning the income and expenditure of the county schools. It has to gain the necessary acquaintance with the primary schools and continuation schools of the county, and may appoint a county inspector to assist in the supervision of the primary schools of the county, a permission, however, which has scarcely ever been made use of.

The *Department for Ecclesiastical Matters and Public Instruction* is the highest school authority in the country. Next come the *School Directors*, one for each of the 6 dioceses, for the superintendence of the primary schools. Bishop and dean take part in the superintendence, and the priest in supervising the instruction in religious knowledge.

In the *country*, every municipality is divided into *school districts*. In 1895, the number of these was 5923. Each school district has its primary school, with at least 2 classes, one for children from 7 to 10 years of age (infant school), and one for children from 10 to 14. In consideration of the distances, the districts in many places are again divided into several infant-school districts. The *compulsory* number of school-hours amounts to 12 weeks per annum, and can be increased to 15 weeks. Six weeks' *voluntary* instruction may further be added to this. Every school-week amounts, in the infant school to 30, and in the upper school to 36 lessons. Thus in the infant school, each child has at least 360 lessons per annum, and the number may be increased to 450 or 630; and in the upper school each child receives at least 432 lessons annually, and the number may be increased to 540 or 756. In exceptional cases, both schools may be taught together.

In the *towns* the primary school is divided into three divisions, intended respectively for children between 7 and 10, 10 and 12, and 12 and 14. Each of these divisions may again be divided into several classes. The primary schools in the towns are, as a rule, divided into seven progressive classes, which yet again, when necessary, are divided into parallel classes. Instruction has to be given daily for a number of hours amounting to from 18 to 24 a week. Voluntary instruction may be added to this in the two upper divisions. The total number of hours, however, must not exceed 30 per week. The school year, after the subtraction of the holidays, is intended to number 40 weeks.

Both in the country and in the towns, whatever *voluntary instruction* is given must be imparted out of the school's legally ordained time for instruction, so that the latter does not thereby suffer. In the country, the subjects of instruction in the *voluntary lessons* shall, as a rule, be the ordinary subjects of the primary school and others closely allied to them. In the towns, instruction in foreign languages may be included. Domestic economy is becoming more and more frequently a subject in voluntary instruction.

For every primary school, special *buildings* shall be erected or rented. In the country, however, in the infant-school districts and the primary-school districts that have less than 20 scholars, school may be held in rotation in the houses of the inhabitants of the district, where sufficient room can be procured. Ambulatory schools are steadily decreasing. Whereas in 1837, 92 % of the children attending school in the country were taught in ambulatory schools, in 1895 this was the case with only 2 %.

The *syllabus of subjects* in the primary school is religion, the Norwegian language, arithmetic, elementary geometry, writing, singing, geography, history (including a knowledge of the administration and local government of the country), botany, zoology and the elements of physics with the fundamental features of hygiene (including instruction in the effects and dangers of the intoxicating liquors), manual work, drawing and gymnastics (in which may be included preparatory rifle practice). In undivided schools in the country, the introduction of manual work, gymnastics, and drawing is a voluntary matter; if the school be divided into classes, only one of these subjects is compulsory, but in the towns all three subjects are compulsory. Dissenters are exempted from instruction in religious knowledge.

The *standard to be attained* is fixed by law only with regard to religious knowledge. In this subject the standard aimed at is a thorough knowledge of the main substance of Bible history, and church history, and of the Catechism, according to the Evangelical Lutheran creed. In the other subjects, it is left to the School Board to fix the standard in the school plan. In most of the rural municipalities, the standard of the various subjects and the time-table are determined principally in accordance with a «normal plan», which was sent round, after the act of 1889, by the Ecclesiastical Department, as a guide, and was drawn up after conference with the school directors.

In the most northerly counties, the population of several municipalities consists partly of Finns and Lapps. This necessitates the use of Finnish and Lappish in several schools, as an auxiliary language in the instruction of children of these nationalities.

In accordance with the «normal plan», the subjects and time-table in most rural municipalities, are arranged somewhat in the following manner:



Subjects	Lessons in the School-week.												
	Undivided School		School with 1 Cl. for each Div.		School with 3 Classes			School with several Classes					
	1st Div.	2nd Div.	1st Cl.	2nd Cl.	1st Div.	2nd Div.		1st Div.		2nd Div.			
						1st Cl.	2nd Cl.	3rd Cl.	1st Cl.	2nd Cl.	3rd Cl.	4th Cl.	5th Cl.
Religion . . . .	8	9	7	7 1/2	7	7	7	7	7	7	7	7	7
Norwegian . . . .	8	7	8	7	8	7	7	10	8	7	7	7	7
Arithmetic . . . .	5	6	5	6	5	6	6	4	5	5	5	5	6
Geography . . . .	<div> <div>2</div> <div>2</div> </div>	<div> <div>2</div> <div>2</div> </div>	<div> <div>3</div> <div>2</div> </div>	<div> <div>2</div> <div>2</div> </div>	<div> <div>3</div> <div>2</div> </div>	<div> <div>2</div> <div>2</div> </div>	<div> <div>2</div> <div>2</div> </div>	<div> <div>2</div> <div>2</div> </div>	<div> <div>3</div> <div>2</div> </div>	<div> <div>2</div> <div>2</div> </div>	<div> <div>2</div> <div>2</div> </div>	<div> <div>2</div> <div>2</div> </div>	
History . . . .													
Science . . . .													
Writing . . . .													
Singing . . . .	2	2	2	2	2	2	2	2	2	2	2	2	2
Manual Work . . . .	—	<div> <div>2</div> </div>	—	<div> <div>2</div> </div>	—	2	2	—	—	2	2	2	2
Drawing . . . .	—		—		—	2	—	—	1	2	2	2	
Gymnastics . . . .	—		—		1 1/2	—	2	2	—	—	2	2	2
Total	30	36	30	36	30	36	36	30	30	36	36	36	

In the towns, where the school terms are of longer duration, and where absences are less frequent, it has been possible to set a higher standard than in the normal plan for the country districts. In Kristiania, where the primary school is considered to be among the best and has been the model for a number of other towns, the subjects and lessons are arranged according to the table on p. 272 (the figures in parentheses refer to girls).

It is decided in the school plan whether yearly and leaving examinations are to be held, and if so, how they are to be arranged. The form of the leaving certificate of the school is also determined in the school plan.

*The pupils.* In the country, the number of pupils in each class must not exceed 35, and in the towns 40, except temporarily or from urgent pecuniary considerations, and must never exceed respectively 45 and 50. In the country, boys and girls are generally taught together, in the towns, as a rule, separately. Out of the rural school districts in 1895 — 5923 in number — 69 per

Subjects.	Lessons in the Week.							
	1st Division			2nd Div.		3rd Div.		Total
	1st Cl.	2nd Cl.	3rd Cl.	4th Cl.	5th Cl.	6th Cl.	7th Cl.	
Religion . .	6/2 (6/2)	6/2 (6/2)	6/2 (6/2)	4 (3)	4 (3)	4 (4)	3 (3)	24 (22)
Norwegian .	12 (11)	10 (8)	8 (7)	5 (5)	5 (4)	5 (4)	5 (5)	50 (44)
Arithmetic (& Geometry)	5 (4)	4 (4)	4 (3)	4 (3)	3 (3)	3 (3)	3 (3)	26 (23)
Writing . .	4 (4)	4 (3)	3 (2)	2 (2)	1 (1)	1 (1)	1 (1)	16 (14)
Drawing . .	—	—	—	2	2 (2)	2 (2)	2 (2)	8 (6)
Geography .	—	3 (2)	2 (2)	1 (1)	1 (1)	1 (1)	1 (1)	9 (8)
History . .	—	—	2 (2)	2 (2)	1 (1)	1 (1)	1 (2)	7 (8)
Science . .	—	—	—	1 (1)	2 (2)	2 (2)	2 (2)	7 (7)
Singing . .	—	—	1 (1)	1 (1)	1 (1)	1 (1)	1 (1)	5 (5)
Gymnastics	—	—	2/2 (1)	2 (1)	2 (1)	2 (1)	2 (1)	9 (6)
Manual Work	(2)	(4)	(4)	(4)	2 (4)	2 (4)	2 (4)	6 (26)
	24 (24)	24 (24)	24 (24)	24 (24)	24 (24)	24 (24)	24 (24)	168 (168)

cent had separate divisions (with two or more classes), while in 31 per cent, the school was undivided. In 1875, the proportion was 39 to 61 per cent. The number of children in each class in the country in 1895 was about 20. In the towns, the number of classes in 1895 amounted to 2095, of which 829 were boys' classes, 798 girls' classes, and 468 mixed classes. Each class had on an average 36.8 pupils.

In 1895, 97 per cent of the children in the rural districts, who were of the legal age for instruction, were taught in the primary school, 2.5 per cent outside the primary school, and 0.5 per cent received no instruction. In the towns, the numbers were respectively 89, 10.1, and 0.9 per cent. In 1895, the number of absences of children taught in the rural elementary schools, was 10.4 per cent, in the towns, 7.4 per cent. More than 10 per cent of the total number of children attending the primary school in the country in 1895, had to go more than 2 miles to school. This shows, in one respect, what difficulties the primary school has to contend with in this extensive country. For the number of pupils and classes, see the table on page 273.

Needy children receive their school books, etc. from the municipality. In Kristiania, of late years, the Municipal Council has also voted the necessary funds for supplying all needy school-children

	Number of Pupils and Classes in the Primary Schools.					
	In the Country			In the Towns		Towns & Country
	School Districts	Separate Divisions or Classes	Pupils	Classes	Pupils	Pupils
1840 . . . . .	7,133	—	168,813	—	12,130	180,943
1870 . . . . .	6,338	—	203,800	839	32,959	236,759
1880 . . . . .	6,350	9,670	204,926	1,198	42,377	247,303
1890 . . . . .	6,198	11,018	230,628	1,660	56,772	287,400
1895 . . . . .	5,923	12,761	253,916	2,095	77,217	331,133

with a meal every school-day. In 1898, 711,302 portions were distributed, of which 18,341 were paid for. The average number of children fed was 5420 daily, 139 of whom paid. As the average number of pupils was 22,750, about 24 per cent of the children have been fed at the schools. The cost of this feeding for 1898 amounted to kr. 93,412 of which kr. 2122 was covered by the sale of food, etc. In other towns too, through private agency, poor school-children have been fed.

#### B. THE PRIMARY SCHOOL TEACHERS, THE CONDITIONS FOR THEIR APPOINTMENT, TRAINING AND SALARIES.

The teaching in the primary school is performed by publicly appointed teachers. In the country, at least 24 school-weeks a year are to be assigned to each regular teacher; at present an average of 33 weeks falls to each. Private or assistant teachers may be employed as teachers in singing, gymnastics, drawing and manual work.

The teachers' situation may be filled with men or women, according to the decision of the local authorities; but at each primary school in the towns, there must be at least one master and one governess.

Year	Number of Regular Teachers in the Primary School.				
	Country		Towns		Total
	Masters	Governesses	Masters	Governesses	
1840 . . . . .	2112	—	124	—	2236
1870 . . . . .	3190	—	350	174	3714
1880 . . . . .	3390	140	390	438	4358
1895 . . . . .	3801	1037	601	1079	6518

All appointments as teachers in the primary school are made by the School Board. No one can receive a permanent appointment, unless he or she has completed the 20th year, belongs to the Established Church, and has passed a teacher's examination. About  $\frac{1}{3}$  of the situations, however, may be filled on terms of 3 months' notice, and for these appointments, and for visiting and assistant teachers, no examination is required. There are two grades of teachers' examinations. The lower, which corresponds to the entrance examination of the training colleges, gives what is requisite for a permanent appointment in the infant school in the country. The higher teachers' examination, or leaving examination at the training colleges, is required for a permanent appointment in the town primary schools, and in the country primary school's second division. The teachers' examinations are organised by an examination committee consisting of three members, who also have to superintend the instruction in the teachers' training colleges.

There are, at the present time, 10 *colleges* for the training of teachers for the primary school, 6 of which are public, one for each diocese, and 4 private. The teaching in the public colleges is free. In the private colleges, by the aid of government grants, a considerable number of free students are admitted. The course at present is 2 years. In a government bill lately brought before the Storting, however, it is proposed to make it 3 years. Both men and women are admitted.

The following subjects are taught at the training colleges: Religious instruction (in the 1st Cl. 6 lessons a week, in the 2nd 4), Norwegian (7 — 6), history (3 — 3), geography (2 — 1), science (3 — 3), arithmetic and geometry (4 — 3), writing (1 — 0), drawing (2 — 1), manual work (2 — 2), music (3 — 2), gymnastics (3 — 2), pedagogy (1 — 1), practical exercises (0 — 9).

To each of the public colleges is attached a 1 year's preparation class. Government aid is also given to private preparation courses for lower teachers' examinations, and for admittance to the training colleges. In 1897—98, 18 of these courses were held.

For the training of masters and governesses in sloyd, needlework, domestic economy, gymnastics, drawing, singing, writing and repetition in these subjects, *courses* are held at longer or shorter intervals, according to requirement. Holidays courses are more-

over held for the masters and governesses of the primary school, the so-called continuation courses, lasting 5 or 6 weeks. At these courses, of which there is one in each diocese, Norwegian, history and natural science are especially taught. Discussions on school and education questions are also held at several of the courses. The number of students at each of these courses is from 50 to 130. Since 1894, summer courses of 12 days have also been held annually at the University and at the Bergen Museum, especially adapted for giving instruction to primary school teachers, more particularly in natural science. These courses have been very well attended.

Towards *travelling scholarships* for primary school teachers, the government votes an annual sum, which of late years has amounted to 10,000 kr. Several municipalities also give travelling scholarships.

The average *salary of teachers* in the country amounted, in 1895, to 778 kr., being rather less for the governesses, and rather more for the masters. The salaries are regulated as salary and allowance for keep per school-week, with a rise after so many years. The weekly salary, allowance for keep, and rises, are different in the various provinces. In each municipality in the country, at least one of the masters shall be provided with house, pasturage for two cows, and a garden. In 1895, 1992 masters had free house, and 1121 of these land as well. The situation of parish clerk, or precentor, in the country churches is to be combined with one of the regular teacherships of the municipality. In 1895, 910 masters were also parish clerks, with an average income, as such, of 194 kr. The parish clerk's salary, and the benefit of free house-room are not included in the above-mentioned average salary (778 kr.). The salaries in the towns vary considerably. The governesses as a rule, receive much less than the masters. In 1895, the highest salary for regular masters in the town primary schools, was 4200 kr., and the lowest 800 kr.; and for governesses, respectively 1550 kr. and 600 kr. *Pensions* are granted to retired masters and widows of masters, by the state. The amount of the pension is fixed in each separate case according to circumstances. The pension for masters and governesses is generally fixed at from 200 to 800 kr., and for masters' widows, from 100 to 300 kr. A bill for a pensioning law will probably be brought before the Storting during the session 1899—1900.

A few municipalities, especially towns, also grant pensions to their masters.

### C. THE PRIMARY SCHOOL BUDGET.

The expenses of the primary school are paid by the municipalities, the counties and the state. In the country, every municipality receives a government grant towards the salaries of its teachers, amounting to  $\frac{1}{3}$  (in exceptional cases  $\frac{1}{2}$ ) of the salaries given (allowance for keep included). The town municipalities receive a grant of  $\frac{1}{3}$  of the amount of the salaries.

In each county, there is a county school fund, of which  $\frac{3}{4}$  are made up by government grants, and  $\frac{1}{4}$  is voted out of the county revenues. Various expenses are defrayed, by permission of the County Council, out of the county school fund, viz. the additional amounts for the raising of teachers' salaries for long service, donations towards the erection of school-buildings (with or without master's house), for providing teachers with land or compensation for the same, for educational apparatus, for aids to poor municipalities where the school expenses, on account of local circumstances, are disproportionately large, for substitutes in any case of long illness, for continuation schools and artisans' schools (arbeidsskoler).

What is required over and above the government grants (in the country, the government grants and the county school fund), to meet the expenses of the primary school is furnished by each municipality in accordance with a vote of the Council.

#### TOTAL EXPENSES OF PRIMARY EDUCATION:

Year	Rural Districts	Towns	Total
	Kr.	Kr.	Kr.
1870 . . . . .	2,091,404	500,992	2,592,396
1880 . . . . .	3,096,889	1,148,770	4,245,659
1890 . . . . .	3,439,029	2,064,782	5,503,811
1895 . . . . .	4,983,304	3,121,955	8,105,259

## THE EXPENSES WERE DEFRAID:

Year	By State	By Municipalities in the Country	By Municipalities in Towns
	Kr.	Kr.	Kr.
1870 . .	145,832 = 5.62 %	1,956,120 = 75.46 %	490,444 = 18.92 %
1880 . .	884,980 = 20.84 %	2,310,295 = 54.42 %	1,050,384 = 24.74 %
1890 . .	1,098,213 = 19.96 %	2,496,817 = 45.36 %	1,908,781 = 34.68 %
1895 . .	2,124,260 = 26.21 %	3,410,462 = 42.08 %	2,570,537 = 31.71 %

Expenses in connection with the training of teachers (in 1895, 257,227 kr.), pensions (in 1895, 390,077 kr.), inspection, etc., are not included in the above table.

In 1895, the education of every child in the primary school in the country, cost on an average 19.60 kr., and in the towns, 47.28 kr., the average for town and country being 24.50 kr. as against respectively kr. 8.84, 21.10 and 10.03 in 1875. The cost of primary education amounted in 1895 to kr. 4.50 per inhabitant.

## II. FURTHER EDUCATION ON THE BASIS OF THE PRIMARY SCHOOL. WORKING-MEN'S COLLEGES.

The primary school law allows the country municipalities to establish, by means of public contributions, *Continuation Schools* (*fortsættelsesskoler*) as an optional school for children that have left the primary school, and for older children (14—18). The time of instruction may be extended from 1 to 6 months. The primary school teachers are in charge of the education. In these schools, which are managed by the School Board, the aim is to take up and treat the educational material of the parish school (Norwegian, arithmetic, history, natural science) with the object of opening the pupils' eyes to the claims that life makes upon every one in their sphere of action. In 1896—1897, there were 172 such schools at work, with 2868 pupils. The schools lasted from 5 to 18 weeks, and the number of classes per week for each school averaged 38, and the expenses kr. 17.07 per pupil.

To meet the needs of the children that have left the primary school for continued instruction, *Night Schools* (*aftenskoler*) are



also held with public and municipal assistance. The subjects are the same as in the continuation schools (principally Norwegian and arithmetic), and the instruction is in the hands of the primary school teachers. While the continuation schools are attended chiefly by children that have just left the primary school (age 15 and 16), the pupils in the night schools are rather older (17—19). In 1898—1899, there were 389 night schools being carried on, with a total of 5519 pupils. The average number of classes was 60, and the expenses per pupil kr. 3.36.

In most of the counties there are *County Schools* (amtsskoler), one or more. In these schools, the education for a practical life is continued on the lines of the primary school and the continuation school. The county schools are managed by the County School Board, which also appoints the teachers. The arrangement and plan of the instruction is determined by the County Council with the approbation of the king. The county school course is for two years or one year. They are some of them intended for mixed schools, some for separate courses for each sex. In the mixed and the boys' courses, the instruction, as a rule, lasts for 6 or 7 months of the year. The girls' courses are shorter — 3 or 4 months. Most of the county schools are ambulatory, and move from parish to parish, remaining 1 or 2 years in each place. Of late years, however, several of the county schools have become fixed. The syllabus, as a rule, is the same as that of the primary school, but the aim is a higher one. The girls receive instruction in needlework and, as a rule, house management, and the boys in sloyd and technical drawing. In a few schools, instruction is also given in gardening, agricultural subjects and English. The instruction is being imparted more and more through the medium of lectures.

In addition to the county schools, there are the so-called *People's High Schools* (folkehøiskoler) in several of the counties. At these schools, which are private, special attention is paid to the influencing of the personality of the young men and women, and fostering an affection for their country and mother-tongue. No attempt is made to train the pupils for any particular position in life or examination, but the end aimed at is that on returning to their homes, the pupils may feel themselves at home in whatever sphere of life they are called upon to enter. The pupils live at the school, and make up as it were, a household with the manager's

family; and particular attention is given to the intercourse between masters and pupils.

In aid of the county schools, the people's high schools, and private schools with a similar object to that of the county schools, and for studentships for needy pupils at such schools, the state grants thrice the amount voted to the schools by the county fund. Direct government grants are also made to a few advanced people's high schools. A sum of about 180,000 kr. has been voted for the budget-year 1900—1901 to the county schools and the people's high schools, and for studentships for needy pupils in such schools, the corresponding amount contributed by the counties being 60,000 kr. The municipalities in which county schools are held, also provide premises, etc. For the same period, a sum of 32,000 kr. has been voted as a direct government grant (without presupposed contribution from the county) to advanced people's high schools and for studentships for needy pupils at such schools. In the school year 1898—99, 45 county and people's high schools were being carried on, 9 of them being private. There were 101 masters and 56 governesses teaching at the schools, and the number of pupils was 1273 boys and 942 girls.

Of late years, adult men and women, chiefly of the working classes, have been instructed in the so-called *Working-Men's Colleges* (arbeiderakademier) in the phenomena of nature and of human and social life, and in the development of human culture and its results upon thought and commerce. The first working-men's college was erected in Kristiania in 1885. Several towns and rural districts have since then followed its lead. In 1899, 35 working-men's colleges were in existence, 10 of them in the country. The instruction is given in the form of lectures (in the evening), with which is associated conversation upon the subject in hand. The lecturers have been scientific men, schoolmasters, military men, doctors, etc. Admission is generally free. The government grant to the working-men's colleges is equal to half what is furnished by the municipality, or acquired in any other way. On the proposed budget for 1900—1901, 23,685 kr. is put down as the amount of the grant to the working-men's colleges.

In addition to the before-mentioned summer courses at the University and the Bergen Museum, the *Public Libraries* may be mentioned in connection with the schools and working-men's colleges. At the present time, the state makes a grant of 20,000 kr. annually

to such libraries. Out of this grant, various amounts up to 200 kr. are given to each municipality. In order to obtain the government grant, an equal amount must be procured from local sources. There are about 650 free libraries of from 100 to 10,000 volumes. In several towns there are municipal libraries, among them being the Deichmann Library in Kristiania, numbering about 50,000 volumes, and the Bergen Public Library, with about 80,000 volumes.

### III. SECONDARY AND HIGHER EDUCATION.

At the beginning of the century, Norway had only 4 grammar schools or classical schools (*lærde skoler*, *latinskoler*), in which higher education was given. By degrees, others were erected, some with «real» courses connected with them, as well as middle-class and «real» schools (*borger- og realskoler*\*)). The higher public education was re-organised by an act of the 17th June, 1869. By the regulations then introduced, the so-called «middelskole» became the school in which was combined instruction both for those who desired a satisfactory general middle-class education, terminating with the middelskole, and for those who wished to lay the foundation for a continued higher education. The course was 6 years, for children from 9 to 15. The further education, which, *inter alia*, prepared for the University, was given in «Gymnasia», in a 3 years' course, intended for young people of ages from 15 to 18. Some of the gymnasia were classical gymnasia (*latingymnasier*) where Latin and Greek were the principal subjects; some «real» gymnasia (*realgymnasier*), where English, mathematics and natural science occupied a prominent place. The act of 1869 has now been succeeded by the school act of the 27th July, 1896.

The act of 1869 had aimed at a connection between the higher school and the primary school, in such a way that the latter might become a common school for all classes of children during the three first years of their school-life (6—9). The primary school,

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\*) In «real» schools, as distinct from «latin» schools, the elements of science, modern languages, and commercial subjects were taught instead of Latin and Greek.

however, was at that time not so well adapted for this, and in most places therefore, 3 1-year preparation classes were associated with the middelskole. As the town primary schools gradually improved, attempts were made in several places to form a connection between the higher and the lower schools, even beyond the first three school years; and by the act of 1896, an organic connection has now been brought about between the secondary school and the primary school in the towns. In accordance with this act, the secondary school builds upon the two first divisions of the town primary school (with voluntary instruction in the second division). The primary school is to be, in general, the common preparatory school for all children for the first 5 years of schooling; at any rate, it is the only government-supported school for children of this age. At present, there are, however, some preparatory schools in connection with private higher schools.

The secondary school is also divided by the act of 1896, into middelskole and gymnasium. The middelskole course is generally 4 years (intended for children between 11 and 15). According to the act, the course must not be made longer, but may be shorter, if the middelskole in any place can be connected with the primary school higher up than after the latter's 5th year. The gymnasium course is 3 years. The aim of the school is given in the act as follows: «The middelskole is a school for children, which, in union with the primary school, gives its pupils a complete, thorough, general education, adapted to the receptivity of childhood. The gymnasium is a school for young people, which on the middelskole foundation, leads on to a complete, higher, general education, which may also serve as a basis for scientific studies. Both middelskole and gymnasium shall contribute to the religious and moral training of the pupils, and it should also be their common aim to develop the pupils both mentally and physically into competent young people.»

*Subjects.* In the middelskole, instruction is given in the following subjects: Religious knowledge, Norwegian, German, English, history, geography, science, arithmetic and mathematics, drawing, writing, manual work, gymnastics and singing. For girls there is also instruction in domestic economy. In the plan of instruction adopted by the Ecclesiastical Department for the middelskole, the division of the weekly lessons is as follows (see the table, next page.)

Subjects	Classes			
	I	II	III	IV
Religious knowledge . . . . .	2	2	2	1
Norwegian . . . . .	5	4	4*)	4*)
German **) . . . . .	6	5	5	5
English ***) . . . . .	—	5	5	5
History . . . . .	3	2	3	3
Geography . . . . .	2	2	2	2
Science . . . . .	3	2	2	3
Arithmetic & Mathematics . . . . .	5	5	5	5
Drawing . . . . .	2	2	2	2
Writing . . . . .	2	1	—	—
Gymnastics . . . . .	3	3	3	4
Manual Work . . . . .	2	2	2	2
Singing . . . . .	1	1	1	—
Total	36	36	36	36

The law allows the establishment of middelskoler in which, either with or without the addition of instruction in other departments, only one foreign language is taught, and where the instruction in mathematics is somewhat restricted.

In the gymnasium, the following subjects are to be taught: Religious knowledge, Norwegian, German, English, French, history, geography, science, mathematics, drawing, gymnastics and singing. Manual work may also be included in the syllabus. Latin and Greek, by the act of 1896, are altogether omitted from the subject-list of both the middelskole and the gymnasium, and instruction in these languages is relegated to the University. In exceptional cases, however, instruction may be given for the present in a few gymnasia in Latin, with a proportional restriction in other subjects. Whereas in the middelskole the instruction is common to all the pupils, a gymnasium may be divided into two lines, the language-history line, and the science or «real» line. This division, however, only takes place in the gymnasium's 2nd and 3rd classes, and not in all subjects.

\*) In Classes III and IV, one Norwegian lesson is given to writing every other week.

\*\*) Alternative — English, 6, 4, 3, 4.

\*\*\*) Alternative — German, 0, 6, 7, 6.

According to a temporarily drawn up plan of instruction for the new gymnasium, the following division of the weekly lessons is suggested:

	«Real» line			Language-history line.			Latin line		
	I	II	III	I	II	III	I	II	III
Religious knowledge . . . . .	1	1	2	1	1	2	1	1	2
Norwegian . . . . .	4	5	4	4	6	5	4	5	4
German . . . . .	3	3	3	3	3	3	3	3	3
English . . . . .	4	2	2	4	7	7	4	2	2
French . . . . .	4	2	2	4	4	3	4	5	—
Latin . . . . .	—	—	—	—	—	—	—	7	11
History . . . . .	3	3	3	3	5	5	3	3	3
Geography . . . . .	1	1	2	1	1	2	1	1	2
Science . . . . .	4	5	5	4	1	1	4	1	1
Mathematics . . . . .	4	6	6	4	2	2	4	2	2
Drawing . . . . .	2	2	1	2	—	—	2	—	—
Total	30	30	30	30	30	30	30	30	30

Six lessons a week are moreover divided between gymnastics and singing

In connection with a middelskole, or if there is a gymnasium, with its first class, a one-year's course may be arranged, which gives a complete training for special practical callings, e.g. trade.

The instruction in the middelskole and gymnasium concludes with a leaving examination, called respectively middelskole examination and «examen artium». The holder of an examen artium certificate is entitled to enter his name as a student at the University. The middelskole examination, according to the new law, will be held for the first time in 1900, and the examen artium in 1903.

*Inspection.* The secondary schools are some government schools, some municipal, and some private. The Ecclesiastical and Educational Department has the supreme management of all the secondary schools. To assist the Department in the inspection of the schools and the arrangement of the leaving examinations, there is a council of education (undervisningsraad), consisting of 7 members chosen from men with a practical understanding of higher education. In all hygienic questions, an expert is admitted into the council. Each

of the government schools has a board of management consisting of the headmaster of the school and 4 members, one of whom is chosen by the Department, and three by the Municipal Council. This board has to watch over everything that can serve to promote the interests of the school, to nominate to vacant teacherships, to administer the funds and receipts of the school, etc. In many places, the School Board forms the board of management for the municipal secondary schools.

*Teachers.* In order to be appointed to a permanent teachership in the secondary school, it is generally required that the aspirant shall have passed one of the theoretical teachers' examinations at the University — the language-history or the mathematical-natural science. Kr. 15,000 has been voted annually of late years for travelling studentships for teachers at the secondary schools, a third of that sum being an extraordinary grant on the occasion of the new law. The courses mentioned in connection with the primary school, for teachers in gymnastics, sloid, etc., are also intended for teachers in the secondary schools. For the latter especially, holiday courses have been held the last two or three years, at the University, to enable them to meet the increased requirements of the new law. A reform in the training of teachers, chiefly with a view to furnish future teachers with more practical experience, is at hand.

The principals of the government schools (rektorer) and the other permanent teachers (second masters, «overlærere», and assistant masters, «adjunkter») are appointed by the king, and are government officers. The rector's salary is 4600 kr. + 400 kr. + 400 kr. after 5 and 10 years' service, as well as house. The two oldest rectors also receive a further addition of 400 kr. A second master's salary is 3200 kr. (with 3 rises of 400 kr.), and an assistant master's salary is 2200 kr. with 3 rises (400 kr., 300 kr., 300 kr.) after 3, 6, and 9 years' service. The principals and permanent teachers of municipal secondary schools supported by government, are appointed by the Department. When their salary is fixed by the Municipal Council at a sum that is not lower than that of the rectors, second masters and assistant masters in the government schools, they are designated in the same manner. Years of service as rector, second master or assistant master are counted the same, whether they are passed in government schools or in municipal schools whose teachers are appointed by the De-



partment. Service in private schools with examination rights is also reckoned in part towards the attainment of increased salary on appointment in the government or municipal schools.

*Statistics.* The number of government schools amounted, in the school-year 1899—1900, to 14, which all, besides middelskole, also have gymnasium. The number of municipal and private schools that have received the right of holding leaving examinations with the same effect as the government schools, amounts respectively to 42 (3 of them in the country) and 28. During the school-year, there have thus been 84 secondary schools at work. Two of the municipal schools, and 4 of the private schools have gymnasium as well as middelskole. A private Latin gymnasium is attached to one of the government schools. The government schools and most of the municipal schools are intended for the common instruction of boys and girls. Sixteen of the 28 private schools are exclusively for girls, the remainder, some for mixed schools, some for boys only.

The municipalities have to provide the government schools with premises, school plant, apparatus, lighting and heating. The rest of the expenses are met by the government grants, the school fees, and, in a few cases, by the schools' private means. Thirty-nine of the 42 municipal schools are supported by government grants. The grant amounts to  $\frac{1}{3}$  of the total of the teachers' salaries, and all the additional amounts for long service. The rest of the expenses are covered by the school fees and municipal grants.

In the school-year 1896—97, the most recent of which the statistics have been worked up, all the secondary schools together had 15,729 pupils divided among 847 classes, with 613 masters and 409 governesses. In the above-mentioned year, however, a preparatory school was still attached to most of the middelskoler, and these were still 6-years courses. In 1899, 347 pupils went up for the examen artium, 47 of them being girls, and 2003 for the middelskole examination, 775 of them being girls.

The education of each child in the government schools in the year 1896—97, cost 282 kr., and in the municipal middelskoler, 124 kr. In 1875—76, the same expenses were respectively kr. 227.60 and kr. 128.40. In 1895, the total expenses of the government schools amounted to kr. 738,312, 36.0 % of this being covered by the school fees, 41.6 % by government grants, 6.7 % by municipal

grants, and 15.7 % by interest on investments and in other ways. In the same year, the total expenses of the higher municipal schools amounted to kr. 758,292, 53.4 % of this being covered by the school fees, 14.0 % by government grants, 24.0 % by municipal grants, and 8.6 % by interest on investments and in other ways.

In addition to the secondary schools, there are some municipal and private boys' and girls' schools without the examination right, in which instruction is given that goes beyond the aim of the primary school. These schools have a freer arrangement than the middelskoler, and have, in great part, for their object the higher education of girls. In 1896, there were 65 of these schools, with 306 classes. The number of pupils was 3707, of whom 2751 were girls. Two hundred and twenty-four governesses and 107 masters had appointments in the schools.

#### IV. THE UNIVERSITY. SCIENTIFIC SOCIETIES. MUSEUMS, &c.

Norway has only one University, the *Royal Frederik University* in Kristiania. It was founded in 1811, and began its operations in 1813, with 11 professors, 3 lecturers and 18 students. In 1856, it had 22 professors, 11 lecturers and 650 students, and in 1900, it has 63 professors, 8 «docents», 10 fellows, and between 13 and 14 hundred students.

The teachers of the University are divided among 5 faculties, theology, with at the present time 5 professors; law, with 7 professors and 1 «docent»; medicine, with 14 professors and 1 «docent»; history philology and philosophy with 21 professors and 4 «docents»; mathematics and natural sciences, with 16 professors and 2 «docents». Each faculty elects a president for 2 years, the dean (dekanus). The 5 deans form the academic council (det akademiske kollegium) which constitutes the University's board of management, and is immediately under the Ecclesiastical and Educational Department.

The professors are appointed by the king. Their salary is 4500 kr. per annum, with 3 additions of 500 kr. after 5, 10 and 15 years' service. The 20 oldest professors moreover have an addition of 600 kr. The «docents» are also appointed by the king. Their

salary is from 2500 to 3500 kr. The fellows, who have only a limited amount of lecturing to do, are appointed for 1 year at a time by the council, and are paid from 1200 to 1400 kr. Foreigners can also be appointed to professorships at the University.

As already mentioned, the leaving examination at a gymnasium, *examen artium*, entitles the successful candidate to enter his name as a student at the University. The instruction there is free. Fees are only paid for permission to enter for the various examinations (from 20 to 40 kr.). Before the students can go up for any of the University degree examinations, they must have passed a preparatory examination, called «*examen philosophicum*». In this examination, philosophy is a compulsory subject; the 5 others may be chosen by the candidate (science, languages, history, mathematics, etc.). The time of preparation for the *examen philosophicum* is 2 or 3 terms.

The average time required to work up for the various examinations is: 9 terms for theology, 8 for law, 14 for medicine, 10 for philology, and 10 for «real» students\*).

In 1899, the number of students in the various branches of study was as follows: theology 70, law 270, medicine 330, philology 45, «real» students 40, mining students 3, students for the *examen philosophicum* about 600, total about 1360.

Since 1882, 260 female students have matriculated at the University, 53 of them having passed the Latin artium, and 207 the Real artium. Twenty-four women have gone up for examinations at the University, 16 of them having taken medicine.

The expenses of the University for the finance-year 1900—1901 were put down at kr. 713,025. Of this amount, 600,000 were defrayed by government moneys, the remainder by the funds, etc. of the University.

There are various collections, laboratories and scientific institutions connected with the University, among them being the University Library (about 350,000 volumes), which is also the National Library, and whose reading-room is open to any one for 7 hours daily; the Botanical Gardens, the Historical Museum, the Astronomical and Magnetic Observatory, the Meteorological Institute and the Biological Marine Station at Drøbak.

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i.e. students of natural science subjects and mathematics.

The National Hospital and the Lying-in Hospital, both government institutions, whose head physicians are almost all University professors, are utilised as University clinics.

The practical training of theological students is carried on at the practical theological college connected with the University.

Two institutions for the promotion of science are the *Royal Literary and Philosophical Society* (Det kongelige norske Videnskabers Selskab) in Trondhjem, founded in 1760, with a library of about 70,000 volumes, and the *Literary and Philosophical Society* (Videnskabselskabet) in Kristiania, founded in 1857, with which is associated the *Fridtjof Nansen Fund for the Promotion of Science*, whose capital at present amounts to about kr. 450,000.

The *Bergen Museum*, founded in 1825, is a centre about which is gathered no little scientific life in the western part of the country. The museum possesses valuable collections, especially of natural history specimens, a considerable scientific library, a biological station with laboratories and aquaria, etc. Annual summer courses are held at the museum for primary school teachers, and in the winter, lectures to working-men. There are also museums in Tromsø, Stavanger and Arendal, with natural history and historical-antiquarian collections.

For the preservation of ancient Norwegian monuments, there is an association founded in 1844, and supported by a government grant. The *Norwegian National Museum*, Norsk folkemuseum, (founded in 1894 in Kristiania), collects and exhibits everything throwing light upon the cultural life of the Norwegian people. The *Industrial Arts Museums* in Kristiania, Bergen and Trondhjem, whose object is to promote the Norwegian industries with regard to tasteful and practical form, possess valuable collections.

The *Archives of the Kingdom* come under the Ecclesiastical and Educational Department. The state archives are in Kristiania; Bergen and Trondhjem each have their diocesan archives.

Sums are voted annually by the state to enable scientific men and artists to travel abroad. Various bequests have also been made towards the support of artists and scientific men, e.g. HOUEN'S Bequest (about 370,000 kr.), BENNECHE'S Bequest (about 80,000 kr.).

SCHAEFFER'S Bequest (about 60,000 kr.), FINNE'S Bequest (about 80,000 kr.), HENRICHSSEN'S Bequest (220,000 kr.) and HANS GUDE'S Bequest (about 40,000 kr.).

## V. SCHOOLS FOR DEFECTIVES. WAIFS AND STRAYS.

The law of 1881 for schools for defectives, and subsequent additional laws, regulate the instruction for *deaf, blind, and imbecile* children. At the head of the defectives' school affairs is a director under the Ecclesiastical and Educational Department.

In book subjects, the aim of the schools for defectives is the same as in the primary school, and in addition the pupils are educated for a practical life. The school course is, as a rule, 8 years. Deaf children are admitted at the age of 7, blind children at the age of 9, and imbeciles, at present, at the age of 14 or 15. The state bears the expenses of their education, while the cost of maintenance of poor children during their stay at the school is borne by the municipalities. The government expenditure on education in 1898—99, amounted to about 300,000 kr., or about 350 kr. per child. The cost of maintaining each child may be put down at the same amount.

There are 5 schools for deaf children, all government institutions. Two of these are at the same time destined to admit new pupils, and to be division schools for the most intelligent children (A-children), 2 are division schools for less intelligent children (B-children), and 1 is a mixed school for the least intelligent children (C-D children). Children are admitted every year. The instruction is given by the articulation method. In the school-year 1898—99, there was a total of 308 children at these schools, with about 60 masters and governesses.

The state has 2 blind asylums, and also supports a private school for blind adults. In 1898—99, there were altogether 130 pupils in the blind asylums, with 20 teachers of both sexes.

There are 3 asylums for imbecile children, all of them government institutions. The boarding-school at one of them is carried on by private means, but will probably be taken over by the state in 1901. In 1898—99, the number of pupils in these asylums was 420, with 67 masters and governesses.

There is an industrial school in Kristiania for deformed persons, which had 44 pupils in 1898.

By an act of the 6th June, 1896, entirely new regulations were introduced with regard to the treatment of destitute and criminal children. The law is only partially carried out, as the necessary institutions had first to be provided. In the course of the year 1900, however, the new regulations will probably be in full force. Their main features are that the criminal responsible age shall be raised from 10 to 14 years, and that young criminals below the latter age, instead of being punished, shall be treated in a different, more considerate manner, especially in having their education attended to. Children who commit crimes after having completed their 14th year, on the other hand, are liable to punishment. But as long as they are under 16, besides, or instead of the punishment, educational measures may also be employed with them. The act, however, does not merely include those children who have already entered upon evil courses. It has been thought that the care of the state should also be extended to children, who though they have not yet gone so far, may be expected to become burdens to society in the form of lazy idlers, criminals and convicts, if they are not brought under better influences in time. The act ordains, therefore, that children of this kind, under certain conditions given in detail, shall also be placed under the care of the state.

The authority to decide what is to be done with a child, whose condition makes the interference of the state necessary, is as a rule placed in the hands of the so-called Board of Guardians (vergeraad). A board of this description shall be formed in every municipality, and consist of a judge and a clergyman, and five members chosen for a period of two years by the Municipal Council, one of them being a medical man living or practising in the municipality, and one or two women. The most important of the measures which the Board of Guardians can adopt with regard to the child is that he may be removed from his parents or guardians, and placed in a trustworthy, honest family, or a Home, or some other similar institution, a reformatory school or a «skole-hjem». If necessary, the parents may be deprived of their parental authority. If the Board of Guardians consider that the child may be left with his parents, they may administer both to him and his parents a serious admonition, and, in certain cases, may inflict upon the child a suitable chastisement.



Children that are not considered to be wholly depraved are generally placed in some family or Home, where they are brought up under the supervision of the Board of Guardians. Children that do not attend school, or that behave badly there, may, by the decision of the School Board, be placed at a reformatory school, where they remain for a period not exceeding 6 months. The reformatory school may be erected by a single municipality or by several in conjunction. Its plan must be approved by the king. Children that are so depraved morally, that their attendance at the ordinary school would expose other children to harmful influences, shall as a rule, be placed by the Board of Guardians in a skolehjem. There shall be two kinds of such skolehjem, one more strict for specially depraved children, and one more lenient. The state shall see that the necessary institutions are provided. The stricter kind of skolehjem is to be erected by the state, for boys and girls separately. On Bastø, near Kristiania, one to accommodate 150 boys is at present in course of erection. A similar establishment for girls is to be founded near Kristiania. The more lenient institutions may be private or municipal, if they are arranged as the law requires. Three previously existing private and municipal educational institutions for destitute boys, will probably be included in the new organisation of reformatory education as more lenient skolehjem, «Toftes Gave» on Helgøen near Hamar, Ulfsnesøen near Bergen, and Falstad near Trondhjem.

The charge undertaken by the state of children that are removed from their parents, ceases when the cause for it ceases, and as a rule, is not continued after the child has completed his 18th year. Children that have been placed in reformatories of the stricter kind, may, however, be kept there until they have completed their 21st year.

The supervision of this class of children falls to the lot of the Ecclesiastical and Educational Department. The cost is divided between the state and the municipalities.

## VI. SPECIAL SCHOOLS.

*Technical Schools.* There are 3 schools in our land whose aim it is to impart the theoretical, technical instruction required by those who have decided upon a technical, or other practical



occupation. They are in Kristiania, Bergen and Trondhjem. The school in Trondhjem is divided into 4 sections, viz. engineering, architecture, machinery and chemistry. The school in Kristiania has only the last 3 of these divisions, and the school in Bergen only the last 2. The school-course in Kristiania and Trondhjem is 4 years, in Bergen 3. To obtain admission to any of the schools, the applicant must have passed the middelskole examination, which is generally done at the age of 15. In the school-year 1898—99, the number of pupils in these schools was respectively 196, 83 and 153, 432 in all, and the number of teachers respectively 23, 12 and 21, 56 in all. The schools are municipal, but are under the supervision of the Ecclesiastical and Educational Department. The municipalities provide the premises and school-plant, and furnish (after subtraction of the school fees — 100 kr. per annum per head —)  $\frac{1}{3}$  of the sum required to meet the expenses, the state furnishing the remaining  $\frac{2}{3}$ . For 1898—99, the expenses at the three schools were respectively about kr. 85,000, kr. 40,000 and kr. 79,000, plus the cost of the premises and plant, about 13,500 kr. for all schools.

In the present school-year, 1899—1900, there are 14 technical night schools. The object of these schools is to give the technical information and proficiency most necessary for handicrafts and other similar industries. For admission to the school, it is required that the applicant shall have completed his 14th year, and can read and write and understand addition, subtraction, multiplication and division of whole numbers and fractions. The course is 3 years. In most of the schools, the school-year lasts 8 months, with 2 hours' instruction on each of the first 5 working-days in the week. In the school-year 1897—98, there were 13 technical night schools, with a total of 2443 pupils and 239 teachers. The school fees amount to from 2 to 5 kr. a year. The arrangement with regard to the supervision and the division of the expenses between the state and the municipality is the same as for the technical schools. In 1897—98, the expenses of the technical night schools amounted to about 111,000 kr.

In Kristiania, there is also a technical elementary day school with the same object as the technical night schools. The course is 6 months, with 6 hours' daily instruction, and a 2 months' supplementary course. In 1898—99, the school had 46 pupils and 6 teachers. The expenses amounted to about 18,000 kr.

The state further supports a mechanical school in Porsgrund, a school for wood and metal industries in Bergen, a technical school for mechanics at Horten, intended especially for future pupils in the naval mechanical workshop, and the mechanics' corps, and some engineering schools.

In February of 1900, a government bill was brought before the Storting for the erection of a technical high school.

The *Royal Art and Industrial School* in Kristiania was founded in 1818. According to the arrangements of 1888 now in force, the object of the school is to train artists and mechanics and teachers in the special subjects of the school. At the school, which is managed by a director, and has 13 second masters, 5 under, and a few assistant masters, instruction is given in free-hand drawing, construction, ornament, modelling, architectural drawing, special drawing for handicrafts, and decorative painting. Lectures are also given in perspective, statics, arithmetic and geometry. No one is admitted as a pupil before having completed his 14th year. The day school (8 months' course) was attended, in 1898—99, by 284 pupils, distributed among 8 classes. The evening school (also 8 months' course), in the same year was attended by 871 pupils, distributed among 17 classes, 8 of which were parallel. Ninety-seven of the day-school pupils, and 54 of the evening school, were women. The expenses of the school in 1898—99 were 81,253 kr., of which 53,285 kr. were furnished by the state, 20,000 by the Kristiania municipality, and the rest by school fees.

In 1899, there were 14 public drawing schools or night schools outside Kristiania. They are chiefly intended for mechanics' apprentices. The government grant to these schools is contingent upon the providing of premises and fittings by the municipalities, and the contribution by them of an amount equal to that contributed by the state. The number of pupils is from 40 to 90 in each school.

*Industries and Handicrafts Schools.* In the present school-year, 1899—1900, there are 9 female industrial schools supported by government, 5 municipal and 4 private. The most important of these is the Female Industrial school in Kristiania, where plain sewing, dressmaking (some tailoring), weaving and fine needlework are taught. The course lasts 1 year, although there are also courses of shorter duration. In the school-year 1898—99, there

were 277 pupils in the school, 97 of whom were in the twelve-months' course. The other schools are, in the main, formed upon the pattern of this one. The state moreover gives support to domestic industry associations in the larger towns. Besides schools for domestic industries and courses in the towns for adults and children, these associations also give courses in the rural districts in general domestic industry subjects (weaving, basket-making, wood-carving, etc.). Further may be mentioned H. FRØLICH and Mrs. FRØLICH's school of domestic industry, in Liadalen, near Kristiania, which also receives support from government.

There is a government-supported *Music and Organ School* in Kristiania. In 1898—99, it had 400 pupils and 26 teachers.

There are private *Mercantile Schools* in several towns. In Kristiania the municipality maintains a mercantile gymnasium, with two one-year classes, which builds upon the middelskole foundation. In 1898—99, this gymnasium had about 80 pupils and 16 teachers.

For other special schools see articles «Agriculture», «Forestry», «Fisheries», «Army», «Navy», etc.

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## THE ARMY

THE Norwegian army, in its present form, dates back to the beginning of the 17th century. The well-developed defence of the middle ages, «leding», had altogether degenerated in the time of troopers and lansquenets; and it was a completely new formation, when a special, national, Norwegian army was again raised by Christian IV.

The warlike traditions of the army consist of a long series of border engagements, in which it defended the frontier with honour and success against the renowned Swedish troops. The strength of the troops of the line generally amounted to between 2.5 and 3 per cent of the population; the organisation was territorial, based upon «lægd», 4, subsequently 2 farms having together to provide one soldier. The towns had their city militia. On the coast and the frontier, there were a great number of batteries and fortresses.

The fundamental law of 1814 determined that obligatory service should be universal and personal. After the union with Sweden had been entered upon, however, a great reduction was made in the army, and most of the fortifications were vacated. The bill for liability to service was not passed until much later. It is on the basis of the conscription act of 1885 that the army has obtained its present complete organisation, in which, however, most of the former line commands are retained.

The organisation in force may be characterised as *a militia system with standing regular cadres*.

Every able-bodied Norwegian, except members of the clergy and pilots, is liable to service, and may be employed in any posi-

tion for which he is best suited. The seamen are to be enrolled in the navy; for the torpedo-defence, fishermen living close by are employed, artisans as far as possible in their own department, the mounted arms are recruited from the larger agricultural districts, all students of medicine serve in the sanitary corps, the training for officers is based upon that of the higher schools, and so forth.

The obligation to serve holds good from the age of 18 to 50. The men are not enrolled, however, until the year in which they complete their 22nd year, thus later than in most countries, and they are on the army list for 16 years. The army is organised in 3 independent successive bans, *«opbud»*. The men serve first in the *line* for 6 years, then in the *landvern* for 6 years, and then for 4 years in the *landstorm*. The remainder of the age-classes are in the unorganised landstorm reinforcements. The three opbuds have the same number of parallel battalions, squadrons, etc., and the line and landvern have the necessary army reserves within their own age-classes. The line only, according to the fundamental law, can be employed outside the country.

This arrangement, peculiar to Norway, of the three successive opbuds of equal strength has been brought about by the position of the country as an independent member in a union. If, in defence of the united kingdoms, the line is operating in Sweden, it will be necessary to have a field army of considerable strength to protect Norway from a special attack, namely, the landvern. By consistently carrying out the territorial system, the third opbud also acquires the same conformation: the landstorm, which here, as elsewhere, is mainly intended for local defence, but also to cover the concentration of the troops belonging to the line and the landvern by instantly occupying prepared points by a sudden mobilisation.

When the organisation is completed by all the opbuds attaining their year-classes (1902), both line and landvern troops will be able to have the cadres for their dépôt or reserve troops established by the landstorm, chiefly by superannuated officers and the school-companies. For the present the landvern cadres must to some extent establish the dépôts.

The *military training of conscripts* is carried on in accordance with the militia system, not by a long barrack service, but by exercise in camps out in the districts, repeated for a number of summers. In the first year, a course of drill is gone through,

which, in the case of infantry, at present lasts for 48 days, for special arms, 60—90 days. After drill come the battalion exercises, lasting 24 days. These exercises are then continued for the two — for special arms, three — following years in the line, 24 days every year, and lastly in the 7th year — the first in the landvern — for 24 days. The total time of training is thus nearly 5 months for infantry, distributed over 4 years (from the conscripts' 23th to their 29th), nearly 7 months for cavalry and field-artillery, and nearly 6 months for engineers, distributed over 5 years. This is, of course, considerably less than the 2 to 4 years' uninterrupted service of the standing armies; but, in comparing the two cases, consideration must be taken on the one hand to the good soldier-material, tall, well-developed men with a good education, and, on the other, to the fact that the exercises during the short repetitions can be carried on with greater vigour, and be more easily given a campaign character than can generally be done in garrison towns. Larger field-duty exercises, in which about  $\frac{1}{4}$  of the line and landvern corps take part at a time, will be held, as a rule, every other year, lasting for one week.

Of enlisted troops in addition to the garrisons in the fortresses, there is only H. M. Norwegian Guard, 2 companies, garrisoning Kristiania, but they are all, properly speaking, training corps for non-commissioned officers.

The *non-commissioned officers* are either regularly appointed, or serve as «vernepligtige» (conscripted). They have all enlisted for the purpose of going through a complete non-commissioned officer's training, with a theoretical and practical course, lasting 3 years for infantry and cavalry, 4 years for artillery and engineers. Only a small proportion of the pupils examined receive permanent appointments, and those as sergeants. Most of them become «conscripted non-commissioned officers», serving during the yearly exercises together with the privates in their own age-classes, in the line and landvern regularly as corporals, in the landstorm in higher grades as well.

The abundant supply of volunteers to these long, strict courses, which renders this arrangement with conscripted non-commissioned officers possible, may appear remarkable, especially in a land with such short compulsory service. The explanation is to be found chiefly in the fact that these sub-officers' schools are regarded as a sound training for young men in practical life as well, as a part

of the national education». They are attended largely by farmers' sons. The school companies, which thus make up the entire standing Norwegian army, number in all about 1700 privates.

The *officers* also either have regular appointments, or are conscripted. They must all have gone through the lowest division of the *military college*. The college is divided into five lines according to the kind of arms, and admits only students or young men with a corresponding education (to the engineers are admitted only pupils who have gone through the building or engineering course in the higher polytechnic schools). It is further required that the candidates shall have been trained as privates in their weapon, by exercises almost answering to the general ones of the recruiting year.

Only a small proportion of the cadets in the one-year lower division of the military college are admitted to the two-years upper division, where permanent officers are trained (in the 5 lines). The cadets that have passed, obtain appointments as lieutenants in the corresponding weapon. In order to enter the staff, a further two-years' training is required in the staff division of the *military highschool*, and in order to obtain promotion in the artillery or engineers, it is necessary to have gone through its artillery or engineer division.

Most of the (about 150) cadets that annually pass through the lower division of the military college, on the other hand, immediately obtain appointments as «conscripted officers», as second-lieutenants in the line, and take part in the annual exercises in the opbuds with promotion in some cases to lieutenant in the landvern, captain or even major (second in command) in the landstorm. This last opbud, which is intended for local defence, thereby acquires a more decided militia character than the other opbuds, in which it is only the subalterns who do not have a more complete officer's training.

*The Supreme Administration.* The king has the supreme command over the land and sea forces of the kingdom. The constitutional responsibility for the administrative rule rests with the head of the defence department. This department has two separate branches, one for the army, and one for the navy. The head of the army branch is the general-in-command, who has the chief command when the king does not take it upon himself. Matters that refer purely to command, are attended to through his adjutants, who do not belong to the department; but if the matters are to



be brought before the king, this is done by means of the head of the department. The General Staff is independently organised.

*Division.* Each of the three opbuds has the following various commands:

*Infantry.* Five brigades of 4 battalions of 4 companies. Tromsø district's command is not yet finally organised, the conscription first having come into force there in 1897. (In the mean time 8 district companies.) H. M. Norwegian Guard is not included in the brigade formation or the opbuds.

*Cavalry.* Three corps and one orderly squadron, 9 squadrons.

*Field artillery.* Three battalions of field artillery in 3 batteries and one park company. Two mountain batteries.

*Engineers.* One battalion of 5 companies.

*Sanitary.* One corps of 3 companies.

*Train.* One corps of 3 companies.

The *coast artillery* occupies a peculiar position in the organisation, in as much as, from its nature as a stationary weapon, it is not divided into three separate opbuds, but includes all year-classes in one. The exercises are also arranged differently. For the fortifications now complete, there are 5 garrison battalions, 5 signal and 5 mining sections. The men are conscripted from the neighbourhood of the fortresses, in order to be able to mobilise quickly. Corporal schools — at Oscarsborg also a sub-officers' school — serve as garrisons at the fortified places.

The *supply department* is organised in the form of a complete military corps under a major-general. The staff is recruited from the army.

The *veterinary corps* is also under military organisation. Its head is a major, and the staff is recruited with veterinaries who have passed through a higher veterinary college.

The *recruiting service* is under a civil-military official who has the rank of major-general, and the title of «generalkrigskommissær».

The *military administration of justice* is also under a civil-military official, with the rank of major-general, and the title of auditor-general. The military criminal law dates from 1866. A motion for altering it, and for a new law regarding military criminal procedure is now before the Storting.

*Fortresses.* On Drøbak Sound, the narrowest part of the Kristiania Fjord, the first new fortifications were commenced (Oscarsborg), after the numerous coast fortifications that we had at the

beginning of the century, had been abandoned or become antiquated. By recent votes, the works in this place have been brought into an effective condition, suitable to the times. Since 1895, the entrance to the Trondhjem Fjord at *Agdenes*, and to *Bergen* have been fortified, and the fortress at *Kristiansand* begun. There are also batteries and submarine defences at several of the towns on the Kristiania Fjord, and a torpedo defence is prepared in several places in the «*skjærgaard*», which is so excellently adapted for them. Far north, at *Vardø*, there is an old fortification, *Vardøhus*, which is kept up as a fortress. The old fortresses at Trondhjem and Bergen, Akershus in Kristiania, Fredriksten and Kongsvinger, are also kept up, but have no special garrison. For the defence on the landside of the capital, which is by far the most important strategic point, there are a few fieldworks, at various passages over the Glommen.

*Arms and Equipment.* The infantry line and landvern are armed with a Norwegian rifle, the KRAG-JØRGENSEN, a 6.5 mm. magazine rifle for smokeless powder. Some of the rifles have been manufactured abroad, but they are now made at the royal manufactory of arms at Kongsberg. The ammunition is procured from the royal cartridge and powder factory at Raufos, west of Lake Mjøsen. The landstorm at present have a magazine rifle of an older Norwegian pattern, the JARMANN, 10.15 mm. It is intended to supply the infantry and cavalry with some HOTCHKISS mitrailleuses which are procured for one of the opbuds. The artillery field-batteries have 8.4 cm. DE BANGE guns, but new quick-firing 7.5 cm. guns are being procured. The mountain batteries have 6.5 cm. light guns. The coast artillery, of course, have guns of the most varied calibre and construction, but the majority of them have been procured within the last 5 years, and are very effective. The engineers, sanitary corps and train have procured, in the main, new material of late years, when, on the whole, great energy has been expended on the development of the means of defence. As regards personal equipment, it may be stated that the infantry are to have Icelandic jerseys, sleeping-bags, and bags to carry on their backs, instead of capes and knapsacks.

*Horses* for the line and some of the landvern are procured by levying, from farms in the eastern and Trondhjem districts, which are bound to keep an approved, trained horse on hire to the state during exercising, for sale in time of war. A supplementary arrangement for stationing horses belonging to the state is begun.

Whatever other horses may be needed in mobilisation are procured by réquisition.

*Strength.* The annual number of recruits to the army, including Tromsø diocese, is about 11,000 (76 per cent of those examined are fit for service in the line). With the annual supply in the 5 southern brigade districts, and after calculating the natural retirements subsequently, the present organised corps commands will be able to be raised with full force and sufficient reserves in all the opbuds, without including the recruiting-year class. (When the landstorm opbud, in 1902, has all its year-classes, it will take its reserves from the landstorm reinforcements). Norway will thus be able to raise systematically by a mobilisation:

1. A *line army* of about 26,000 men that according to law can be employed abroad;
2. A militia army of more than 25,000 men — the *landvern*; together a field force of 51,000 men, about 2.5 per cent of the population;
3. A second ban of the militia, the *landstorm*, 25,000, chiefly for local defence;
4. *Coast artillery*, 4500;

Altogether about 80,000 men to defend their own land.

Of regular officers there are at present about 800, and about 700 «conscripted». The number of the latter will gradually be increased considerably. Non-commissioned officers (regularly appointed) number about 2200 and those serving as «vernepligtige» 1600 (the number of the conscripted non-commissioned officers will, however, gradually be more than doubled).

An amount is voted annually for the mobilisation of different troops, in order to test their readiness for war.

Higher military units than the brigade have not yet been raised in time of peace. A major-general has the command in each of the 5 brigade districts.

Besides the regular army, it is intended to utilise the *volunteer rifle corps* for the defence of the country. These number about 30,000 members, of whom about 20,000 are not on the army-list. The rifle corps members possess about 15,000 rifles of the army pattern. In case of war, the volunteer riflemen will probably, according to a motion put forward, be provided with uniform marks, and be placed under the command of the army. Of late years, the rifle corps have received a grant from the state for

ammunition and for the purchase of Krag-Jørgensen rifles; and courses of instruction have been given for the training of officers for the corps.

*The Budget.* The ordinary army budget, which was about 6 million kr. before the alteration in the organisation in 1887, has risen, as this has gradually been carried out and improved, to an average of 9 million kr. in the nineties. The last budget was 11.6 million kr. This figure amounts to 5.5 kr. per head, just the half of what it is in Great Britain and Germany: in France it is 14 kr. At the same time as this has been going on in the ordinary budget, about 26 million kr. has been voted, between 1892 and 1899, for fortifications, arms, and suitable equipment. Even if this extraordinary budget be included, the average expenses after 1892, when the restoration of defences was begun with special energy, were no higher than 6 kr. pr. head, and thus less than the European average, which is more than 7 kr.

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## THE NAVY

**I**N the middle ages, the ships of the Norwegian Vikings were known far and wide. The old national defensive organisation «leding» (the levy), was entirely based on naval warfare; the coast was divided into ship-provinces, which each had to provide a manned vessel with oars and sails. In the development of the larger types of war-ships of more modern times, Norway had no part until long after a union was effected with Denmark; and the traditions of Norwegian naval wars during the last centuries are hardly to be separated from those of Denmark, as long as this union existed. It was in a great measure Norwegian sailors and Norwegian officers that manned the fleet, which maintained the intercourse between the kingdoms, and which was most frequently victorious in the numerous engagements with the Swedish fleet in the Baltic and the Kattegat. In 1801, a bloody battle was fought with the English under Parker and Nelson in the roads of Copenhagen; and in 1807, the large and splendid united fleet was given up to the English, who quite unexpectedly landed in Zealand. During the succeeding years of war there were no ships left in Norway but two or three brigs and a few rowing gun-boats.

Since 1814, special importance has been attached to gun-boats, as these vessels had proved capable of keeping the belt of rocks and islands along the coast, the «skjærgaard», free from the enemy's ships, and open for the coast traffic which is so necessary for Norway.

Steam was introduced fairly early, and in the sixties Norway had a fleet of screw frigates and smaller steamers, that was quite on a par with those of her neighbours. When the general intro-

duction of armour-plating followed the American civil war, a few monitors were built, but it was of course impossible for a nation numbering less than two million persons to keep up with the rapid development of large and very costly vessels that followed. We confined ourselves mainly to strengthening to some extent the defence of the *skjærgaard* by building small steam gun-boats with heavy guns. The importance of defence by torpedoes in waters like those of Norway, was soon understood; and the first torpedo-boat built for any foreign government was for the Norwegian navy, by Thornycroft (1873).

It was not before 1895, however, that the development of the Norwegian navy again made any advance worthy of remark. Attention was then turned to other branches of the fleet equally necessary for a country like Norway, that is obliged to procure the necessaries of life across the sea, namely *armoured and more sea-going war-vessels*. As these ships, however, must also be adapted for employment within the *skjærgaard*, nature itself sets a limit to their size, a limit also more nearly corresponding to the financial capacity of the country. The type chosen was the 3rd or 4th class iron-clad of the large navies, or coast-defence vessels of from 3600 to 4000 tons, with a speed of 17 knots. Up to the present, Norway has had 4 of these ships built at the Elswick Works, Newcastle-on-Tyne (2 of them will be finished in 1900). They are comparatively strongly protected and armed, the armament being two 21 cm. guns in turrets, and a secondary battery of 6 guns, 12 cm. on the two ships first built and 15 cm. in armour-plated casemates on the two last, all quick-firing, and moreover from 12 to 14 76—37 mm. quick-firing guns besides two broadside submarine launching tubes for Whitehead torpedoes. The complement of men is about 240.

The 4 monitors have been re-armed, their old, heavy, but short guns having been exchanged for smaller, quick-firing guns (12 cm.). With their low speed, however, they can scarcely be regarded as anything but floating batteries for local defence.

The Norwegian navy has two rather large gun-boats of 1100 and 1400 tons displacement, with a protective deck over the vital parts, a speed of 15 knots, and armed with two 12 or 15 cm. guns, in addition to some of smaller calibre. There are further 8 small gun-boats, with one large gun (21—27 cm.) each, only one of them having any armour-plating. Their speed is low,

and they are only intended for coast defence within the skjærgaard.

The *torpedo-boats*, which, in our complicated waters with their numerous channels and sounds between the islands, must have unusually favourable conditions for their operations, and can make it very unsafe for any hostile ships, number 28. One of them is a 380-ton division boat, 10 of them are 84 tons with a speed of 23 knots, and 17 are from 40 to 65 tons with a speed of 18 or 19 knots.

These, chiefly new vessels (46 in all) amount to about 29,000 tons, with 53,000 horse power, 174 guns (54 of them from 12 to 27 cm.), and manned with about 3000 men. There are also a number of old gun-boats and training-ships.

The *principal naval station* and dockyard is at Karljohansvern, at Horten, where most of the war-ships have been built. There are also smaller naval stations at Tønsberg, Kristiansand and Bergen.

The fleet is *manned* with merchant sailors, who serve their time of military service in the navy. On conscription at the age of 22, they must have served at least a year on merchant ships in foreign waters. The number of recruits is about 1500 annually, and there is therefore a far greater number of sailors of the age in which military service is compulsory, than is necessary even for a considerably larger fleet. It has therefore been moved, this year that only the number necessary for the actual needs of the navy (at present about 650 yearly) shall be taken up for a year's naval training.

*Signal-stations* have been established along the coast, manned with about 150 enlisted men.

The *warrant- and petty-officers* of the navy are trained at Horten. They are organised in (1) a naval corps (gunners, seamen, and signalmen, non-commissioned officers, and pupils), (2) a *torpedo corps*, (3) an *artisans' corps* (engineers, engine-room-artificers, stokers, armourers and carpenters). The school-courses last 4 years. Lastly, there is (4) a *Hospital corps*. The actual number of non-commissioned officers and enlisted men amounts to about 1000.

\* Of *commissioned officers* there are about 80 regular, and 60 belonging to the reserve, besides medical officers. These numbers will be considerably increased in the course of the next few years. They are educated at the *naval academy*, where the course is 5



years for the regulars, 2 years for officers of the naval reserve. The entire training of the latter occupies 3 or 4 years. In order to obtain admission to the naval college, it is necessary, besides having passed the middelskole examination, to have served on board a merchantman for 21 months. Twenty-five pupils are admitted annually.

As the principal aim of the Norwegian fleet is a defensive one, the crews are trained chiefly during cruises and gun-boat and torpedo-boat manœuvres on the coast. There are longer cruises with training-ships for cadets and other pupils.

The *highest naval authorities* are classed similarly to those of the army. The commander-in-chief of the navy, who takes the chief command, when the king does not take it upon himself, is also at the head of the navy office (admiralty), which is a part of the defence department. There is a special general staff for the navy in Kristiania.

With the reforms of the last five years, whereby chiefly new ships have been acquired, and a new organisation of the force effected, the ordinary naval *estimates* have risen from 2.8 to 4.5 million kroner. The extraordinary grants that have been necessary for the building of the 4 armour-clads, completion of stores, etc. have amounted, during the same period, to about 26 million kr.

Norway, which, next to Great Britain, the United States and Germany, has the largest mercantile fleet, can of course not compete with the Powers in the matter of a naval fleet. What has been aimed at during the recent development of the navy, is to enable it, with the aid of fortifications and submarine mines, and the splendid defence afforded by the skjærgaard with its difficult navigation, to keep open the communication along the coast, and prevent an effectual blockade.

These are questions of vital importance to Norway, where a large proportion of the population is associated with the coast, and where so many of the necessities of life must be imported by sea. A maritime country needs a navy, and Norway has begun, to the best of her ability, to acquire one.

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## AGRICULTURE

As Norway, in its main features may be described as being a barren and mountainous country, stretching from 58 to 71 degrees northern latitude, and lying open to the Atlantic Ocean and the Northern Polar Sea, it will be easily understood that agriculture cannot play any important part relatively to the area of the country. The arable soil is found in comparatively narrow strips, gathered in deep and narrow valleys which branch into the mountain table-land, and around fjords and lakes; while large continuous tracts fit for cultivation, as measured by the regular European standard, do not exist. The entire area of Norway is calculated at 124,525 square miles<sup>\*)</sup> which, as regards their nature and use, are distributed as follows:

	Sq. miles	Percentage of area of country
Town territories . . . . .	96	0.1
Grain fields. . . . .	893	0.7
Cultivated meadows. . . . .	1,450	1.2
Natural meadows. . . . .	1,211	1.0
Woodland . . . . .	26,317	21.1
Pastures, home & mountain grazing land	9,438	7.6
Bogs . . . . .	4,632	3.7
Bare mountains . . . . .	73,752	59.2
Lakes. . . . .	4,789	3.8
Snow & ice . . . . .	1,947	1.6
<b>Total, Norway . . . . .</b>	<b>124,525</b>	<b>100.00</b>

<sup>\*)</sup> A more recent calculation of the area gives a slightly different result (124,495 sq. miles).

Thus it will be seen that hardly 3 % is used as grain fields and meadow land, and only about 0.7 % as grain fields alone, that is to say, about  $\frac{1}{140}$  of the total surface of the country.

In spite of the small acreage that is thus left for agriculture, this is nevertheless the principal resource of the country, not only because more people are engaged in it than in any other pursuit, but also because its aggregate annual yield represents a value which is about equivalent to the yield of the three other largest sources of income combined, namely shipping, export of fish and timber. According to the last census (1891), 635,000 persons gained their livelihood by agriculture, and if we add thereto those who are indirectly connected with this pursuit, the number is increased to 838,000 out of a population of two million people.

Chiefly with reference to the taxes burdening the land, there was already in the year 1665 established a ground register, which has repeatedly been revised. The latest revision was decreed by an act of 1863, and in conformity therewith all the landed property of Norway, with the exception of Finmarken (the northernmost of the 18 counties of the country where the state is the landowner), has been rated at 500,000 skyldmark, this being the standard of valuation for taxation purposes, each mark being divided into 100 øre; and no property can be valued at less than one øre of taxable valuation. About 20,000 skyldmark have since been struck out of the ground register of the country, principally owing to the fact that parts of the country districts have been annexed to the town territories. The ground register, however, has gradually lost most of its importance as the basis of taxation, inasmuch as other bases have come more to the front.

While in former centuries the feudal system was generally adopted in most European countries, it has never existed in Norway. The peasants have always maintained their freedom to acquire property anywhere within the limits of the country, except, as mentioned above, in Finmarken. For that reason, villanage, or bond-service, has never existed here. Thus, from the early Middle Ages, the Norwegian peasant has always enjoyed a greater freedom than the same class elsewhere in Europe. This circumstance, however, did not prevent an accumulation of the landed estates in a few hands, the result being that the

peasant class to a great extent became tenants and leaseholders, and less than one half of the land of the country was utilised by freeholders.

In 1685, however, a Royal Ordinance was issued, by which the right of the landowners to recover lease and rent for land that was leased or farmed, was still more restricted than by the previous attempts in the same direction, and in this ordinance it was furthermore stipulated that every landowner who himself utilised more than one estate, should pay double taxes on those in excess of one. The advantage of owning land which one did not personally use was hereby considerably reduced, and as a consequence the farms were gradually sold to the peasants, a process which is still going on to this very day, although the ordinance was repealed in 1799. Out of the 120,000 farmers of the country, hardly one-tenth are now tenants, farmholders or leaseholders, while the remainder, that is, to say about 109,000, are freeholders.

Although the right of the owner to dispose of landed estate is relatively free in Norway, provisions have been made by the legislation for the purpose of keeping in the family such landed estates as have once come into its possession. The most important of these stipulations relate to the so-called *Odelsret* and *Aasædesret*.

The *odelsret* consists in the right of the family to redeem at an appraised value landed property that has been sold. This allodial right is acquired when the property has belonged for 20 consecutive years to the same owner, his wife, or issue in direct line of descent. It is lost when the property has been in the possession of strangers for three years.

The *aasædesret* is a right belonging to the nearest among the issue of the last possessor to take over the landed property left by him. If this comprises several estates, and there are more than one entitled to the succession, the next of kin can lay claim to the chief estate, or such estate as he may prefer, while the others are entitled to select in their turn. Anybody entitled to make use of this *aasædesret* can demand that the estate shall be handed over to him at such a price as the deceased has stipulated in his will, but if no such will is in existence, the value has to be fixed at a low appraisement. If the remaining assets of the estate are not sufficient to satisfy the co-heirs and the creditors of the deceased, the party who takes over an estate by virtue of the

aasædesret has the right to legally offer them satisfaction in the shape of a mortgage on the estate, while the ownership becomes vested in him. The co-heirs and the creditors then do not immediately receive the amount due to them in cash, but must content themselves with the mortgage security in the estate. The party entitled to take over property in this manner must pay legal interest on the claims of the other heirs and claimants thus secured, until due notice of the calling in of the debt has been given by any of the parties, six months in advance.

Up to the year 1814, it was permitted to establish entails which could not be sold or mortgaged. At that time this right was repealed, and at present only three such entailed estates exist in the country.

*Common ownership of land* was in previous times very common in Norway, but on account of the many obstacles which it places in the way of a thorough utilisation of the soil, legislation has in different manners sought to further the partition and allotment of the estates. We must here distinguish between complete and incomplete community of property. In the complete community or common ownership, no division of the land has taken place, a condition of affairs which is still often found as regards pastures and other grazing land in the country districts, and the mountain pastures, especially in the western part of the country. The incomplete community of property (*teigeblanding*) has, as a rule, come into existence through the division of an originally large estate once or several times according to the principle that every part-owner was to have an equal amount of the different kinds of soil, without reference to the mutual position of the different pieces of land. In this manner every farm acquires its distinctly defined plots of land, but these lie without any internal connection interspersed among those of the neighbours in such a manner that their protection becomes disproportionately expensive or even impossible, and in the same manner the utilisation of the soil is rendered difficult.

Complete or incomplete community of ownership can be done away with by means of voluntary partition and allotment which is, however, conditional on the consent of all the interested part-owners or tenants. On the other hand, every part-owner of common land in a community can require a public partition, which is managed by a chief surveyor, appointed by the public authorities,

in connection with two sworn assistants appointed by the magistrate. A second partition may be required within three months after the conclusion of the original partition and allotment.

With reference to the distribution of property according to the size of the estates and average amount of seed sown and live stock kept, we refer to the table below:

#### SEPARATELY REGISTERED FARMS AND LOTS OF GROUND.

	Number	Average assessed valuation	Average quantity of seed sown Bushels		Average stock of domestic animals				
			Grain	Potatoes	Horses	Cattle	Sheep	Goats	Swine
Lots of ground (Mks. 0.01—0.50) .	27,649	0.22	2.31	6.79	0.11	1.61	2.31	0.49	0.18
Small farms (Mks. 0.51—5.00) .	93,172	2.10	9.98	15.62	0.76	5.45	8.66	1.48	0.53
Medium-sized farms (Mks. 5.01—20.00) .	23,395	8.73	30.33	31.84	2.11	10.98	10.41	1.86	1.56
Larger estates (Mks. 20.00—100.00)	2,207	31.71	83.52	85.06	5.62	23.00	8.89	2.19	4.16
Largest estates (Mks. 100.00 and above) . . . . .	32	148.25	172.73	119.95	12.78	53.03	4.10	0.03	5.37
Total of the whole country . . . . .	146,355	3.29	12.95	17.63	0.93	5.87	7.74	1.37	0.69

It will be seen from this that the Norwegian farms are very small, both as concerns crops and live stock, if we measure them by the regular European standard. It must, however, in this connection be remembered that husbandry in Norway affords better opportunities for accessory sources of income than probably in most other countries, such as forestry in the eastern part of the country, shipping in the southern coast districts, fishing in the western and northern parts of the country, etc.

The aggregate annual income from agriculture in Norway can be estimated at about 70,000,000 kroner. To many of the medium-

sized and larger farms, one or several cotters' places are attached. The cotters (husmænd) are a class of farm labourers who for a longer or shorter period (often during the time of their natural lives) have leased a small, and not separately registered, part of the farm, as a rule on one of its outskirts. The size of these cotters' places, as well as the rights and privileges enjoyed by the tenants, are very different in the different parts of the country. In some localities they consist only of a leased building-lot with a plot of ground attached, while in other localities they consist of several acres of ground on which may be kept a horse and several cows, and on which most of the things necessary for the family in the way of grain and potatoes may be produced. In some cases the houses are owned by the cotter, and in others by the landowner. The former is especially the case where the place has been leased for a life time. In the latter case it was in former days very common to pay a tenant's fees, and in addition a small annual rent which might be paid partly in cash and partly in work of different kinds. In many cases the cotter is also obliged to work on the farm at different times of the year for a wage regulated by contract and which is usually somewhat lower than the average pay of free labourers. On the other hand the rent is as a rule low, and in most cases there is connected with the place the right of grazing cattle and sheep in the outlying pastures of the farm, and to gather the necessary amount of firewood.

In 1890 there were 33,469 cotters in Norway, but of late their number has been decreasing, a circumstance which, as a rule, is considered to be injurious to agricultural interest, inasmuch as this system, more than anything else, produces capable, experienced and reliable workmen not only for agriculture, but also for the other trades.

Husbandry naturally falls into two divisions, agriculture and cattle-raising. Both of these pursuits are almost everywhere carried on, in connection with each other, and this is the case in all districts throughout the country, with the exception of some of the northernmost districts where agriculture is limited to a very small production of potatoes.

It is a consequence of the extension of the country over thirteen degrees of latitude that the conditions under which agriculture is carried on are extremely diverse. Thus, while in the south-eastern part of the country, cultivated plants and fruits such



as walnuts, grapes, tomatoes, peaches, apricots and edible chestnuts may, under favourable circumstances, be ripened in the open air, in the northern parts and in tracts of high altitude, cultivation of even the most hardy plants is impossible on account of insufficient summer warmth.

Of *cereals*, the following species are cultivated in Norway: Oats, barley, rye and wheat, but, as far as the first mentioned is concerned, only to an extent sufficient for the needs of the country. Although *oats*, as a bread-cereal, is gradually being replaced by barley and rye, it still remains the chief grain sown in most of the districts of the country. Inasmuch, however, as it needs two or three weeks more of growth than barley, its cultivation decreases in the higher altitudes and latitudes. The average time of growth from sowing to ripening may be estimated at sixteen weeks. The area annually sown with oats amounts to about 240,000 acres, and the yield is about 9.5 millions of bushels.

The species of *barley* that is cultivated is almost exclusively the six-rowed kind, most of which is utilised as human food. It is pretty certain to mature every year up to the 70th degree of latitude, where it ripens in about eight weeks, while in the country as a whole, it needs as an average time of growth 13 or 14 weeks. The area annually sown with barley is somewhat more than 125,000 acres, and the yield about 4 millions of bushels, i. e. about 2 bushels for each individual.

In connection with the two species of grain mentioned, reference should also be made to mangcorn, by which in Norway is always understood a mixture of barley and oats. Experience shows that these two species by being cultivated together give a greater yield than when cultivated separately. Mangcorn is utilized partly as human food, and partly as fodder for cattle, especially for fattening swine, for which purpose it is considered peculiarly adapted. It covers annually an area of about 35,000 acres and yields about 1.4 millions of bushels. Like oats, mangcorn is as a rule cultivated without direct manuring.

*Wheat*. On account of the greater requirements of this species of grain both as concerns soil and climate (length of the summer) it is cultivated to a less extent than the preceding kinds of grain. It is rarely found north of the Trondhjem Fjord, and even in the more southern and by nature more favoured districts, the wheat areas are rather small from the fact of wheat being less hardy and

yielding less than the grains mentioned above. The variety cultivated here is almost exclusively spring wheat, and the area annually sown is about 10,000 acres, with a yield of about 255,000 bushels.

Of *rye*, both the winter and spring varieties are cultivated, but mostly the first-named kind. This grain, however, like wheat, is not cultivated to any large extent in spite of the fact that it is *the* bread cereal of the country. Its cultivation extends to the 69th or 70th degree of latitude (the region around Tromsø), as it is satisfied with as low mean temperature for the summer as 50 degrees Fahrenheit. When, nevertheless, the cultivation of rye is not carried on to a greater extent, this is partly because the spring rye gives a slight yield, and partly because the winter rye is not very reliable in places where the snow in the autumn usually falls on a frozen field and remains on the ground almost the whole winter, or where sharp frost and thaw interchange during the winter. The annual time of growth of the winter rye for the whole country can be estimated at somewhat less than a year, and for the spring rye at about four months. The area annually sown is stated to be 34,000 acres, and the yield about 900,000 bushels.

*Pease.* White as well as grey peas are cultivated in small quantities in the south-eastern parts of the country and in the districts around the Trondhjem Fjord. They cover an area of about 9000 acres with an annual yield of about 220,000 bushels.

Of *root crops*, only potatoes are cultivated to any large extent. The potato grows easily in almost all the inhabited parts of the country, and is one of the chief foods of the population. It is also used in the service of industry for the production of spirits and starch. The kinds most generally cultivated are the round yellow ones, the white and red ones being less common. Potatoes require an average time of growth of 16 weeks; they cover an area of about 96,000 acres, and the annual yield is estimated at about 23.2 millions of bushels that is to say about an average of 240 bushels per acre.

Of other root crops, mention may be made of turnips, kohlrabi and carrots, but as agricultural products, properly speaking, they play a rather subordinate part; the two last mentioned, however, almost everywhere play a part in horticulture.

The following table shows the area, yield, and value of the chief agricultural plants.

Kind of seed.	Area in acres	Yield in bushels	Value in kroner
Oats . . . . .	241,760	9,511,909	18,158,707
Barley . . . . .	127,948	4,092,759	12,223,098
Mangcorn . . . . .	35,075	1,396,796	3,314,917
Wheat . . . . .	10,838	255,709	949,838
Rye . . . . .	33,998	918,324	2,780,767
Pease . . . . .	9,009	220,973	835,434
Potatoes . . . . .	96,670	23,213,858	24,807,136

Compared with the areas, the yields of the different species of grain are large compared with other European countries. This is probably due chiefly to the more careful cultivation and heavier manuring that, as a rule, are given to the smaller areas, and it can therefore only in a less degree be ascribed to a fertile soil or good natural conditions otherwise. This appears from the following table, which shows the yield by deciton per hectare of the different seeds.

	Wheat	Rye	Barley	Oats
Norway . . . . .	16.9	17.3	18.2	16.4
Sweden . . . . .	14.82	14.36	14.71	13.20
Denmark . . . . .	25.22	16.03	16.81	13.53
Finland . . . . .	11.83	10.65	9.66	10.50
Great Britain and Ireland .	20.09		18.96	16.52
France . . . . .	11.92	10.65	11.67	10.58
Germany . . . . .	13.72	10.62	13.40	11.89
Russia . . . . .	5.57	6.41	6.79	6.22

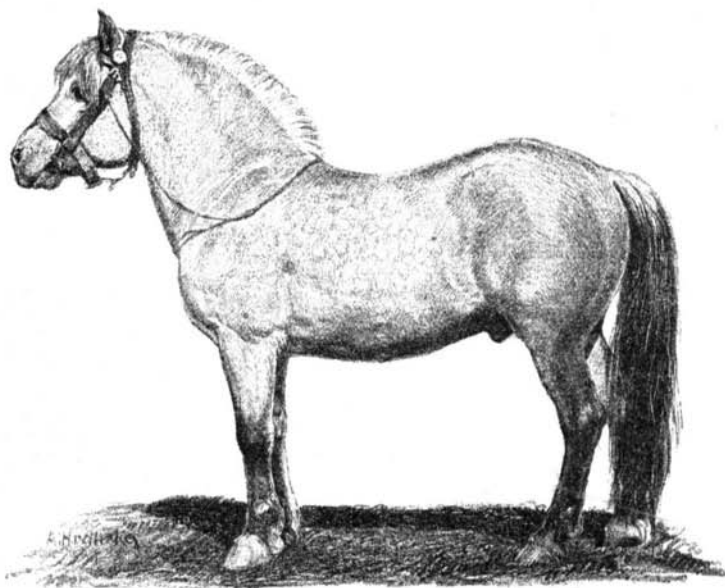
*Meadow cultivation* has made great progress in Norway during the last few decades. When the soil has been utilised for grain fields for three years, it is as a rule again laid out as meadow, a mixture of different seeds being used, among which timothy and clover play the most prominent part, and in which several of the wild grass seeds, such as cocksfoot, fescue, poa and others come in as a further addition. Although as yet it is only in a minority of localities that a certain rotation of seeds is being used, the following seven years series can now be considered the rule in different parts of the country: First year oats or mangcorn, second year root crops or fallow, third year barley or rye, and then grass for about four years.

*Horticulture* does not play any prominent part in Norway although on most farms it is carried on to a greater or less extent, together with regular farming. Among the more enlightened portions of the peasantry, it is the rule to find outside the dwelling-house a kitchen garden where the vegetables necessary for the family are raised, such as cabbages, small turnips, carrots, parsley, onions, celery, pease and beans; and of fruit trees and fruit bushes we may, under favourable circumstances, find pears, apples, sweet and sour cherries, currants, gooseberries, black currants, and raspberries. The observation has been made that vegetables as well as fruits that have been raised in a high northern latitude seem to possess a stronger aroma than the same species cultivated in more southern tracts. In favourable years excellent fruits may be obtained; but the rough climate during the winter renders the fruit-yield, as a rule, rather uncertain. It is only in a few districts around the Kristiania Fjord and the Hardanger Fjord that horticulture is carried on to any greater extent than just to satisfy the farmers' own needs of garden produce. Nevertheless, there is at present a strong movement for the promotion of horticulture, and many of the counties have appointed gardeners who travel round the district, and give the population free instruction in the laying out and care of gardens.

The raising of domestic animals is an important factor in Norwegian husbandry. In the census of 1890, it was found that there were in the country 150,898 horses, 1,006,499 cattle, 1,417,524 sheep, 472,458 goats, 121,057 swine, 796,563 poultry, 5,446 ducks, 4,840 geese, 1,516 turkeys and 17,219 swarms of bees.

Of *horses* there are two somewhat different types or forms, namely the fjord horse of the western country, and the Gudbrandsdalen horse of the eastern country, named from the district Gudbrandsdalen, where its systematic breeding and raising has been carried on for a longer time than elsewhere. The fjord horse is small, rarely more than 60 inches high, as a rule of a light colour — dun, sorrel, gray, more rarely brown or black. It is distinguished by a strong frame, and is hardy, gentle and very active. It cannot properly be called handsome, on account of its short, thickset and rather stiff neck. It has not a very good carriage, and as a rule somewhat crooked hocks, but as a working horse in the fjord and mountain districts, which are often poorly provided with roads, it cannot be replaced by any other breed. The Gudbrands-

dales horse is somewhat larger, as a rule about 63 inches high, and generally brown or black in colour. It has partly the same faults of build as the foregoing one, although to a less extent; it has, among other characteristics, splendid legs, and is quick and strong as a working and carriage horse, but less suitable as a saddle horse. It is used as a farm horse all over the eastern part of the country and in the districts round the Trondhjem Fjord. For the best stallions, up to 6,000 kroner

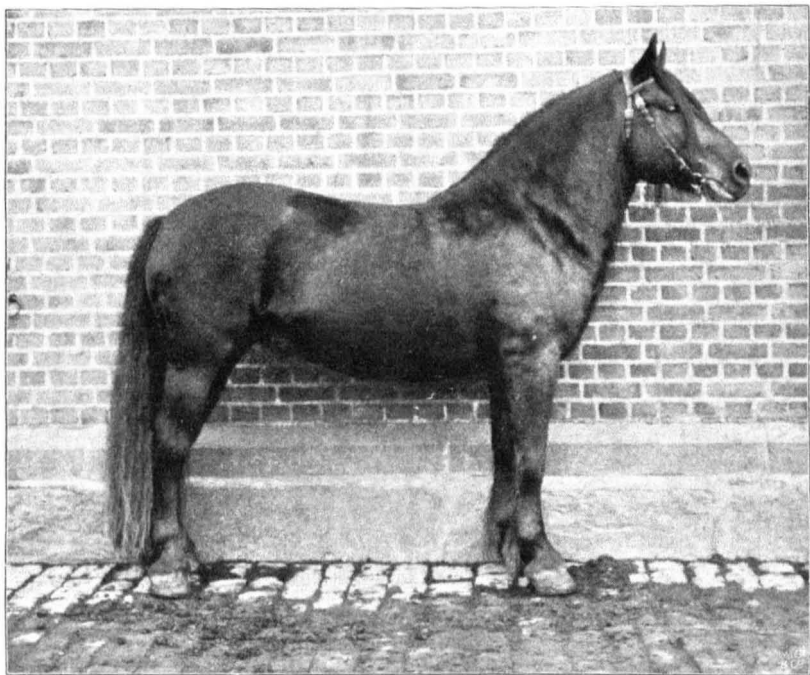


Fjord horse.

are paid. The average price for a good working horse is 700 to 800 kroner.

Of *cattle*, there are several different types or breeds in Norway, but they may all be counted as mountain cattle of a milk breed. Nowhere do we find the broad, rounded and muscular forms of the lowland cattle with an inherited tendency to flesh production. On the contrary, the animals are as a rule small and slight, but good milk producers. They must often seek their food over large stretches of ground on sparse pastures. Several attempts have at different times been made to improve the cattle stock of the country by an admixture of foreign blood, especially Ayrshire, Dutch and Holstein-Frisian, but these

attempts have not on the whole been very successful, and of late a more systematic and energetic work has been commenced in the direction of improving the domestic breeds by a careful selection of breeding animals, and of the rearing of the young stock. Among these domestic breeds can be mentioned the Telemarken breed, which is the most typical of our mountain cattle.



Gudbrandsdalen horse.

These animals generally have red or brindled sides with white back and belly, and long, delicate and beautifully curved horns. The weight of the cows averages about 660 lb. avoirdupois, and compared with the weight of their body, their milk-giving capacity is considerable. The best animals can, if well fed, give 600—900 gallons annually, while the estimated average is six or seven pounds of milk for each pound live weight. The cattle common on the plains of the eastern part of the country have a uniform red colour, are without horns, and as far as size and milk-giving capacity are concerned, come very near the previously