



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

NYPL RESEARCH LIBRARIES



3 3433 06661353 4



GGK
Norw^a
W .

NORWAY



Norway. Kirke-og Undervisnings-departement

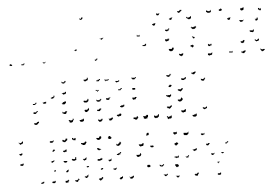
NORWAY

OFFICIAL PUBLICATION FOR
THE PARIS EXHIBITION 1900



KRISTIANIA
AKTIE-BOGTRYKKERIET

1900



THE NEW YORK
PUBLIC LIBRARY
198147
ASTOR, LENOX AND
TILDEN FOUNDATIONS.
1901

NEW YORK
PUBLIC
LIBRARY

PREFACE

ON February 6th, 1899, a government bill was brought before the Storting for a vote for the publication of a work on Norway, on the occasion of the Paris Exhibition in 1900. After the Storting, on the 6th March, had voted the required amount, the editing of the work was placed by the Ecclesiastical and Educational Department in the hands of the undersigned, who had already, as commissioned, ensured the services of specialists in the various subjects.

The article on «*Geology*» is translated by Mr. J. C. CHRISTIE; the articles on «*Finances*», «*Banking*», «*Agriculture*», «*Forestry*», «*Mining*», «*Industry*», «*Commerce and Shipping*», and «*Language*», by Mr. P. GROTH; the article on «*International Position*», «*the Constitution of Norway*», and «*the Act of Union*», by Mr. H. L. BRÆKSTAD; «*the Political Constitution and Administration*» and «*Judicial Organisation*» by Mr. H. WESEBERG. The remainder of the articles have been translated by Miss JESSIE MUIR, though in most cases with the final revision by the authors and editors. The geological map is drawn by the head of the Norwegian Geological Research, Dr. H. H. REUSCH; the climate chart by the chief assistant at the Meteorological Institute, Mr. A. S. STEEN; the forest chart by Mr. K. A. FAUCHALD; while the population chart and the map of Norway have been drawn or rearranged by Dr. ANDR. M. HANSEN, who has in various ways rendered assistance to the editors.

Kristiania, May 20th, 1900.

STEN KONOW, Ph. D.
of the University of Kristiania.

KARL FISCHER,
of the University Library.



CONTENTS

Page	Articles	Authors
1	Geographical Situation	ANDR. M. HANSEN
8	Topography	—
35	Geology	H. H. REUSCH
45	Climate.	AXEL STEEN
58	Plant-Life	H. H. GRAN
70	Animal Life	JAMES A. GRIEG
79	Anthropology	ANDR. M. HANSEN
85	Population	G. AMNÉUS
121	Prehistoric Periods	SIEGW. PETERSEN
127	History	O. A. CEVERLAND
161	International Position	EBBE HERTZBERG
170	Political Constitution and Administration	A. FÆRDEN
188	Municipal Organisation	U. F. C. KROHN
196	Judicial Organisation	A. FÆRDEN
202	Social Conditions	H. E. BERNER
223	Sanitary Conditions	WILHELM HIORTH
231	Finances	J. J. WOXEN
251	Banking	—
257	Insurance	G. AMNÉUS
260	Ecclesiastical Organisation	E. I. HAMBRO
266	Education	J. V. HEIBERG
295	The Army	
303	The Navy.	
307	Agriculture.	G. TANDBERG
332	Forestry	K. A. FAUCHALD
351	Fisheries	JOHAN HJORT
376	Hunting	
380	Mining	
386	Industry	G. AMNÉUS and A. TH. KLÆR
403	Commerce and Shipping	A. TH. KLÆR

Page	Articles	Authors
442	Means of Communication	BERNH. ANDERSEN, ANDR. M. HANSEN and J.T. SOMMERSCHILD
467	Post, Telegraph and Telephone	
474	Language	HJ. FALK
486	Literature	CHR. BRINCHMANN
515	Press	KARL FISCHER
525	Painting	JENS THIS
576	Industrial Arts and Sculpture	L. DIETRICHSON
597	Architecture	JOHAN MEYER
617	Music	V. H. SLEWERS

Appendix P. I — XVII The Constitution of Norway
 — XVIII — XXIII The Act of Union

(Cf. Index at the end of the book.)



GEOGRAPHICAL SITUATION

NORWAY forms the north-western part of the Scandinavian peninsula, which is separated from Northern Europe by the Baltic. It extends from $57^{\circ} 58'$ N.Lat. (the little island of Slettingen off Mandal) to $71^{\circ} 11'$ N.Lat. (Knivskjælodden, west of the North Cape on Magerø) or, keeping to the mainland, from Lindesnes, $57^{\circ} 59'$ to Nordkyn, $71^{\circ} 7'$, a difference of latitude equal to that between London and Lisbon. East and west, the country extends from $4^{\circ} 30'$ E.Long. (Utvær at the mouth of the Sognefjord) to $31^{\circ} 11'$ E.Long. (Hornø near Vardø), which represents $1\frac{1}{2}$ hour's difference in time; but the degrees of longitude are short in these latitudes, scarcely 30 miles in the middle of the country. The area is 124,495 sq. miles. From NE to SW, from Vardø to Lindesnes is 1100 miles in a straight line, so that if swung round on the last-named point, the country would reach to the Pyrenees. Its width in the south is about 250 miles, in the northern half only about 60 miles, with a little more breadth again in Finmarken. The distance from the head of the deep fjords in Nordland to the frontier is considerably less; at one place, Rombaken, at the head of the Vestfjorden, where the future Ofot railway is to be laid, the width is even as little as 5 miles.

Norway, as a whole, is thus a long, narrow coast-country on the North Atlantic. The length of the coast round the outer belt of rocks is 1700 miles — about equal to that of France, although the latter country is more than half as large again —; the entire shore-line, including the fjords in and out, and the large islands, may be set down as 12,000 miles, and would stretch half way round the globe.

On the *north* the coast of Norway is washed by the Arctic Ocean. The nearest land is Bear Island, then Spitzbergen, 36 hours' steam north from Hammerfest. Every year the Norwegian sealers cruise about the sea as far as it is open in the north, and the name of Norway has been associated with the history of polar exploration, from Othar, in king Alfred's time, to Nansen.

On the *west* we have the North Atlantic Ocean. The nearest land, which may be sighted after 24 hours' fair sailing from the coast near Bergen, is the Shetland Isles, where the people still talked Norwegian in the last century. About the same distance farther towards the NW lie the Farøe Isles, and yet farther, still in the same direction, Iceland, both having been colonised from Norway a thousand years ago, and still speaking the old Norwegian language almost unaltered. A good deal farther west lies Greenland, also an old Norwegian colony, which, together with the above-named islands, was lost at the dissolution of the union with Denmark in 1814. The voyages of the old Norsemen were even extended for a time to the continent of America, to Vinland. At the present time $\frac{1}{7}$ of the Norwegian-born population live in America. If we sail south from the Shetland Isles, we have the Orkneys, Sutherland, the Hebrides, and the Isle of Man, all stations on the western route of the Vikings, and Norwegian possessions for several centuries. Norwegian kings ruled in Dublin for more than 300 years, and the number of Norsemen among the so-called «Danes» who conquered England, was by no means small; the conquerors of Normandy were chiefly Norwegian Vikings. Towards the west, Norway has thus, of old, been closely connected with countries round the sea. About $\frac{1}{3}$ of her trade with foreign countries is at present with Great Britain and Ireland. (Newcastle to Bergen, 36 hours).

With the countries to the *south* of the North Sea, Norway has also been long and closely connected, with the Netherlands and North Germany. The Hanseatic towns ruled the trade with Norway for hundreds of years, and Hamburg, in particular, is still of great importance, (Steamer from Hamburg to Kristiansand, 36 hours).

From Lindesnes, the coast turns gradually towards the NE along the Skagerak, which, with a width of 70 miles, separates Norway from Denmark (Jutland). The width is not greater than will permit of the lighthouses of both countries being visible at the same time (Ryvingen and Hanstholmen). There has so long

been a close connection by sea here, that it is even said that evidences of it may be detected in the dialect on the south coast of Norway. (Steamer Kristiansand—Fredrikshavn, 10 hours).

From the Kristiania Fjord, the Norwegian coast again turns southwards towards the Kattegat, and ends at the Hvaler Islands and Ide Fjord. Up to 1658, Norway met Denmark at the mouth of the river Göta, and communication between the two countries along the coast here was of considerable importance. Viken, i. e. Bohuslen, and formerly also more northerly parts of Norway had even partly had an early political connection with the Danish kingdom. It is thus a natural consequence of the country's general geographical situation that Denmark has been the country to which Norway has stood in the closest and nationally deepest relations in past ages, politically for more than 400 years (1380—1814) in a connection, which to some extent became an amalgamation.

Towards the north, west and south, Norway has thus long been closely connected with her neighbours across the sea. If we include the whole of Germany and also France (Havre to Kristiania, 72 hours), it may be said that $\frac{7}{10}$ of Norway's intercourse with the outside world is now with the countries bordering on the North Sea towards the west and south.

Towards the *east*, Norway has her long land frontier, which almost equals the coast in length — 1500 miles as against 1700. Farthest north the country is bounded by Russia for 100 miles, then by Finland for 450 miles, and for the remaining 950 miles by Sweden. The boundary line runs southwards, to some extent following the watershed of the Scandinavian peninsula. At 63° N.Lat. this is quitted, and the line follows the eastern limit of the Glommen district, and then of Tistedalen, the upper part of the Klara, however, also falling within the confines of Norway (Fæmunden and Tryssil).

From a topographical point of view, Norway does not seem to have any «natural boundaries» in a general sense, on her land-side. It has even proved to be utterly impossible to draw a reasonable boundary-line that really followed the watershed; no marked division exists, no chain of mountains, no separating «keel». It has not in reality been a definite natural *line* that has divided Norway from her neighbours on the east; it has been a *band* of desert land, up to hundreds of miles in width. So utterly desolate and apart from the area of continuous habitation has this

been, that the greater part of it, the district north of Trondhjem, was looked upon, even as recently as the last century, as a «common district». Only nomadic, even then to some extent heathen, Lapps wandered about in it, sometimes taxed by all three countries. A parcelling out of this desert, common district was not made towards Russia until 1826! Towards Sweden it was made in 1751, and it was principally on account of the geographical ideas prevailing at that time on the subject of mountain ranges as defined by watersheds, that the boundary was drawn as far west on the mountain plateau as it lies, without really being able to follow any watershed.

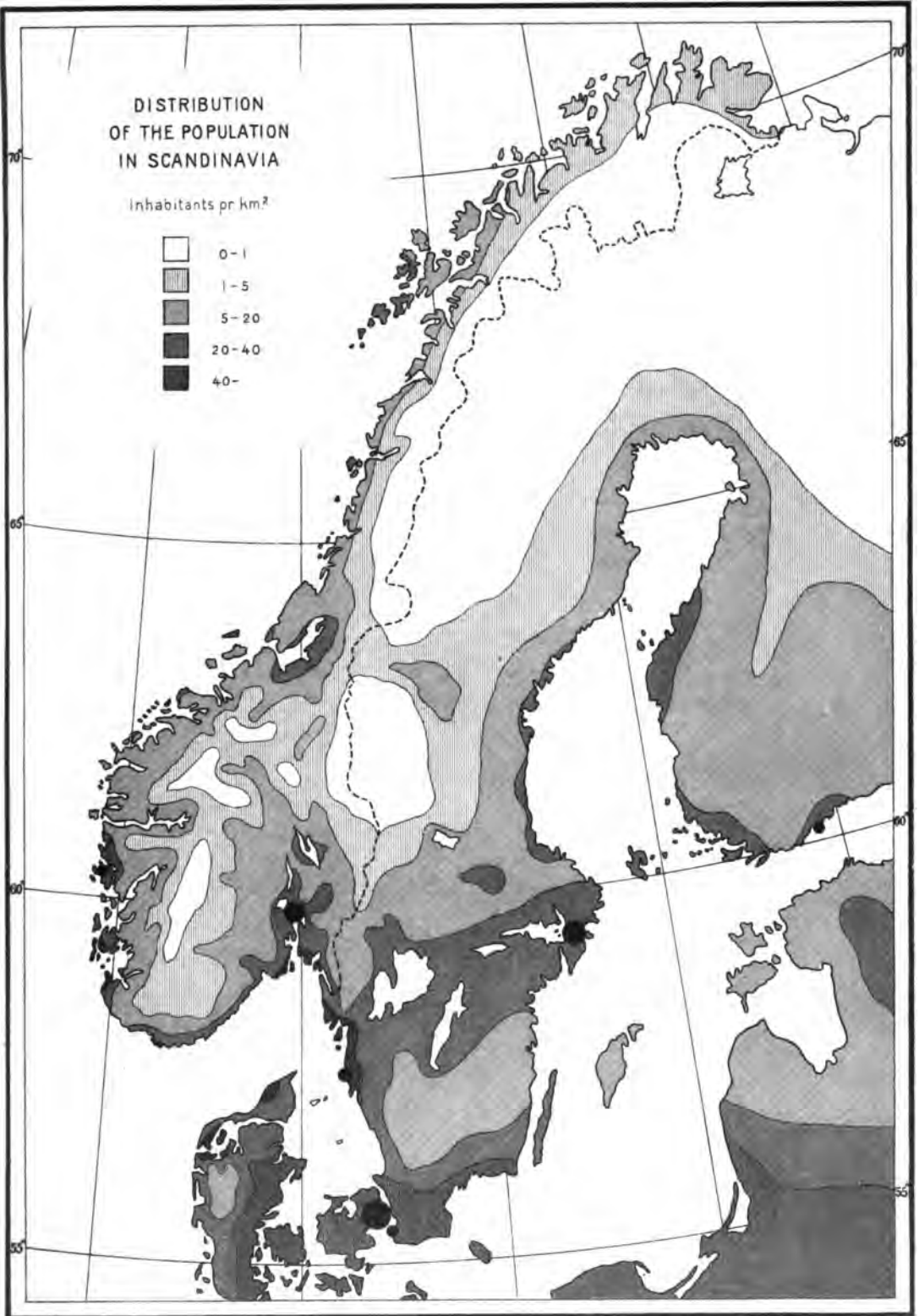
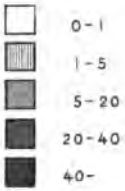
The inner districts of Finmarken, Karasjok and Kautokeino have a population no denser than 1 per 4 sq. miles, the adjoining parts of Finnish and Russian Lapland still fewer, and the width of this desolate region is about 200 miles. Along the Swedish frontier southwards to 64° N.Lat., the desert strip, serviceable only to the nomadic Lapps, is about 120 miles wide, double the width of Norway itself. Altogether, Lapland, which sends out a wedge far down between Norway and Sweden, is calculated to be 150,000 sq. miles with only 15,000 inhabitants — a perfect arctic waste. Physically, it is an off-shoot from the tundra belt of the shores of the Polar Sea. The height above the sea along the frontier towards Swedish Norrland is about 2000 ft, the mean annual temperature 32° to 28° Fahr., the temperature of January about 10° Fahr.; the snow covers it for about 200 days in the year, and even the large, deeper-lying lakes lie frozen from the beginning of November until about June. It will be easily understood that the population falls to 1 per 8 sq. miles.

This Lapland strip is almost broken off by the depression round the Trondhjem Fjord. The forests from both sides meet here in the glens between the valleys, and the lines of equal altitude fall below 1000 ft. The population in the frontier district rises to 2.5 per sq. mile, without the nomadic Lapps being altogether replaced by the settled inhabitants. South again, in south Jemtland, Herjedalen, the northern part of Dalecarlia and the Klara district, the denseness of the population is again reduced by half with the rising height of the mountains.

Here at about 62° N.Lat. the spread of the nomadic Lapps to the south is checked for the present. We come from the tundra off-shoot to the northern boundary of the great sub-arctic

DISTRIBUTION
OF THE POPULATION
IN SCANDINAVIA

Inhabitants pr km²



THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

Asio-European zone of coniferous forest. Here too, however, a 60 miles broad, long deserted region follows the boundary. There were only very few scattered clearings in the forest along the main rivers up to about 1600, when an immigration from Finland began, and the Finns gradually brought their clearings northwards, until they met the Lapps from the north. Their descendants constitute a very important part — perhaps 15—20,000 — of the still very thin population along the frontier in the forest zone, the Finn woods of Herjedalen, Dalecarlia and Vermland in Sweden, Tryssil, Solør in Norway, south to Sitskogen on the heights of Kristiania. Not until at a distance of 30 miles or so from the coast, does this broad frontier band, chiefly peopled with foreign races, Lapp or Finn, dwindle down, and the denser and consecutively populated tracts meet.

Thus, on the whole, Norway's land-boundaries towards the east, towards Sweden as well as Russia and Finland, are defined by a broad band, desolate, trackless, uninhabited, or only occupied by nomadic Lapps and forest Finns, a band that forms a very complete isolation for the home of the Norwegian people. An arm of the sea of the same width, or a high chain of mountains could not form a more effective natural boundary.

It is only at the depression at Trondhjem, that the connection across the boundary is easier, to Jemtland. This district, indeed, received its first settlers from Norway, and has for a long time belonged to this country, but its uncertain position may be concluded from its having belonged from the first to the Upsala diocese. Farthest south, where the continuous settlements draw together, the boundary must of necessity, to a certain extent be indefinite and arbitrary; and here too, as in Jemtland, it was displaced in the 17th century, on the defeat of the Danish party in the union.

It is hitherto only at these two places, the Trondhjem depression and far south (here by two lines), that modern times have brought about a complete land connection by means of railways (Trondhjem—Östersund, 11 hours; Kristiania—Stockholm, 13 hours; Kristiania—Göteborg, 11 hours). Besides these, only about a dozen high roads cross Norway's far extended land boundary, with several days', often arduous, travelling between the larger centres of population. One clear indication of the effectiveness of the frontier zone in separating Norway from her neighbours by land,

may be seen in the fact that of all the commercial transactions with foreign countries during 1898, only $\frac{1}{3}$ per cent crossed the frontier in any other way than by the three railway-lines, not more than 5 per cent of Norway's goods-exchange with foreign countries — transit included — crossed the land frontier, although as already mentioned it amounts to 47 per cent of the periphery of the country; while 95 per cent went by sea — in itself a conclusive indication of the difficulties of overland communication for Norway.

With this powerful natural barrier between the two countries on the Scandinavian peninsula, it is easy to understand how Norway's historical connection with Sweden has not been nearly so intimate as that with the other Scandinavian country, Denmark. It has mainly turned rather on peripheral contact, even in the case of the many wars during the last couple of centuries, in which Norway was indirectly implicated by her union with Denmark, and whereby the before-mentioned, only changes of frontier came about. Not until 1814 was Norway released, by the general European political situation, from the close union with Denmark, when she entered into the present less intimate one with Sweden.

Ordinary maps of Europe, which show only direct distances, give to the general mind the impression that the two countries on the Scandinavian peninsula belong to one another as an organic whole. *Topographically* too, this is the case, but on the other hand, *anthropo-geographically*, it is not. On a map showing the inhabited parts of the peninsula in detail, the immense, uninhabited dividing band comes prominently forward, even when the haunts of the nomadic Lapps are also indicated on the mountain plateau in the north, and even if a recent influx of now in the main assimilated Finns have partly occupied the desolate frontier district in the forest country of the south. A communication-chart giving a graphic representation of the ease of connections with foreign countries, would give all the greater prominence to this trackless, sundering band, which, in a great measure, is accessible for only a short time in the year, as compared with the easy connection in all directions across the North Sea.

Thus, towards the east, on the land-side, the kingdom of Norway is also separated from its surroundings with unusual distinctness. Very few countries form so naturally isolated an anthropo-geographical unit.

TOPOGRAPHY

It is quite superficially that the Scandinavian peninsula is separated from the continent by the shallow basin of the Baltic. In reality it is the same uniformly built, even plateau of gneiss and granite, with a few remains of palæozoic strata, that is continued from Finland, just dips beneath the level of the Gulf of Bothnia, and then rises again slowly towards the west to an altitude of about 1500 feet. Approaching the Atlantic, however, the rocky ground suddenly changes, and the landscape acquires another character. Above the low Baltic plateau, a new plateau rises with a clearly defined step almost in a line from Lindesnes to the North Cape, about 100 miles within the western coast. This higher plateau arches slightly, to a height of about 3000 feet, from the eastern edge towards the crest of the peninsula, which runs NNE, whence again the western side dips down with a slight curve into the Atlantic. Geologically, it appears that a new flake of the earth's crust has been reached here, of which part of the edge appears to be pushed far out over the Baltic plateau, with greatly transformed crystalline schists. Farthest west along the coast, there are lines of eruptive rocks, granite and gabbro, between archaic strata, highly folded, with their strike following the coast-line. We here evidently have remains of old coast-chains along the fall of the continent towards the ocean, as it is in so many places, e. g. the Cordilleras. Whatever there have once been, however, of actual mountain-chains have become levelled in the course of long geological periods; we have nothing left but a fairly level surface, afterwards forced up along the west margin of the peninsula, like a low barrel vault, about 100 miles in width,

which springs from the coast abutment of the continent eastwards to the continental plateau.

The boundary between these two great structural features of the Scandinavian peninsula is perhaps most clearly marked in Swedish Norrland, where «the Highland» (högfjällen) rises like a distinct wall against the granite plateau of «the Woodland» below. Farther south, in Norway, the defining line is less strongly marked, and is not yet decidedly determined everywhere in a geological sense. Topographically, however, a distinct step in the heights is marked by a range of mountains which rises far above the Woodland below, to heights, some of which are only surpassed by mountains considerably nearer the axis of altitude, viz. Sølen, 5750 feet, Høgtind, 3920 feet, Prestkampen, 3986 feet, Synesfjeld, 4639 feet, Storrusten, 4219 feet, Norefjeld, 4951 feet, Gausta, 6178 feet, and Lifjeld, 5084 feet. And as in Norrland, the contrast is brought prominently forward by the cessation of the great northern Asiatic-European belt of conifers at the wall. The chief topographic division will naturally be between the Woodland and the Highland.

Only a small portion of the *Woodland* — which thus corresponds geologically with the continent plateau — falls within the borders of Norway. It is a district to the south-east, rising in average height from 300 to 1500 feet, with undulating, forest-clad hill-sides (highest summits 1000 to 2500 feet), which, from a width of 200 miles along the frontier, rapidly dwindles along the Skagerak towards the southern apex of the country (See Map in article Forestry); and another district at the extreme north-east, in Finmarken, where, however, the slightly undulating plateau, though only five or six hundred feet in height, is very thinly clad with forest.

The *Highland* we may reckon as beginning in the extreme south-west, with a width of 60 miles within the Buknfjord, with a plateau height that rapidly reaches 3000 feet along the almost imperceptible axis of altitude, and with peaks of from 4000 to 4500 feet, which rapidly decrease in height only when nearing the coast. The Highland, or the Wide Waste («vidden»), as it is here usually called, continues towards the NNE in the direction of the long axis of the country, with increasing height and width — up to 150 miles — as the coast-line deviates more to the west, to the culminating point of the Scandinavian peninsula in the *Jotunheimen*,

where the plateau height may be placed at 5000 feet, and a number of peaks rise above 6500 feet. Galdhøpiggen (8399 feet) is the highest, and its neighbour Glitretind (8380 feet). Farther north, Snehatta and peaks in the more isolated Rondane, attain to a height of more than 6500 feet. In the latter half of its northern extent, the Highland is of a more uniform width of about 100 miles between the North Sea and the Swedish Woodland, with heights such as Børgefjeld (5587 ft.), Okstinderne (6273 ft.), Sultjelma (6178 ft.), (Kebnekaise in Sweden, 7008 ft.), Jæggevarre in Lyngen (6283 ft.) until it runs out towards the Arctic Ocean in the islands about Hammerfest, with heights such as 3527 feet on Seiland. In the Nordland county, it is only the western slope that belongs to Norway.

Throughout the greater part of the 900 miles through which the Highland runs, there is thus a very regularly built mountain plateau with very even summits both in the longitudinal section, and in the somewhat oblique, flattened arch of the transverse section. The long vault, however, is interrupted in the middle by the *Trondhjem depression*, which makes a circular incision from the coast-line of the Trondhjem counties towards the axis of altitude, and brings all the heights down some 1500 feet below the normal. Along about 200 miles of coast-line, the land surface almost dips below the sea, where it can still be traced in the low range of islands and rocks from Smølen to Vigten, outside the submarine turn of the Trondhjem Fjord towards the north (Frohavet). The Fosen peninsula within, has summits of only sixteen or nineteen hundred feet, and the low Silurian districts on the inner side of the broad fjord deep form a unique divergence from the ordinary structure of the coast land.

As the depression runs in a semicircular form from the side towards the NNE length of the Highland, its inclination here takes, for some distance, a direction from W to E (between Snota in Trolldheimen, 5543 feet, and Sylen on the border, 5794 feet), then turns to the north again through a part where the depression has brought the mountain summits, even at the axis, down to 3500 feet, and the glens down below the tree line. The divergence from the regular NNE longitudinal direction in the Highland, produced by the Trondhjem depression has given earlier geographers occasion to distinguish three «mountain chains», the *Langfjeldene* (from the south to the bend eastwards, between the west and the



Highland.

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS.

east country), the *Dovre* (the part running from W to E between the northern and the southern districts), and the *Kjølen* (between Norway and Sweden, farther north). Topographical or structural limits are not, however, to be found between these sections.

It is thus, on the whole, a very regularly formed mountain system upon which Norway is constructed, namely, the long arch along the Atlantic, following the axis of the country, and the two smaller pieces of the continental area which comes within the border in the north and the south. If we stand on a somewhat isolated height in the south-eastern Woodland, the two structural features are very prominent. We look out over a succession of forest-clad hillsides, ridge after ridge of tolerably uniform height, an undulating sea of dark forest, with here and there light spots of cultivated ground in the troughs. Far out towards the west and north may be seen in the distance a fringe of higher mountains, bare, blue mountains with white patches of snow in the hollows. It is indeed some of the above-named summits (Lifjeld-Sølen) that mark the edge of the Highland.

If we come up to this edge, on to a height in the Highland, its character as a plateau is distinctly apparent. We look out over wide, grey-brown heaths with ling and willow, bog and lake, and out towards the horizon rises mountain behind mountain at uniform heights. The whole constitutes an immense mountain plateau, where the more deeply cut valleys are lost to the eye, and where only in a few places, single peaks or groups of peaks rise above the general level. If we cross over to the west side, we can see how the plateau arches evenly, first slowly, then more rapidly, towards the sea far away on the horizon.

The even summits indicate clearly that it was originally a plain of denudation that has afterwards been forced up into an arch. The summits that tower above this, often prove to consist of harder kinds of rock — like the gabbros of Jotunheimen, Lofoten and Lyngen, the conglomerates of Fjordene — and may therefore be supposed to have better withstood the destructive forces which have levelled the remainder to a plain. Actual connected mountain-chains rising above lowlands at both sides do not exist.

But in the original, very simple, uniform mountain block, the chisel of *erosion* has worked in very various lines, and shaped the topographical details. As soon as ever the earth's crust had arched up along the great height axis, the rivers must have begun

to cut down into the rocky mass. The extensive remains of the continuous vault show, however, that they had scarcely succeeded in doing more than cutting deep cañons, such as we are acquainted with in newly-risen land elsewhere, e. g. the Pacific States. Such cañons must there be cut deep down into the western arched side of the mountain, and similarly through the edge of the plateau towards the continental area of the Woodland. But the form of these deep, narrow incisions which cut up the arched surface so



Glacier (Jostedal).

sharply, show that the work of the rivers must soon have been succeeded by that of the *glaciers* in the great Ice Age, when Norway was covered, as Greenland now is, with inland ice.

Disputed though the question even now is, it seems difficult, in the end, to avoid the conclusion that all the most prominent features in the surface-geology of Norway are due to the action of the erosive forces just at that period.

The coast country of Norway is first of all remarkable as the land of the *fjords*. There is not, as in most countries, a more or less continuous coast-line; it is broken up incessantly by deep incisions of the sea into the rocky cliffs, fjord after fjord, a



Fjord (Hardanger).

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

continuous series of peculiarly-formed, narrow basins. In sailing into a west-country fjord, and seeing how it winds along with no great breadth, between the rocky cliffs that rise higher and higher the farther we penetrate, we could believe that it was a real fissure in the earth's crust. We receive the impression that the steep sides of the fjord — and the eye exaggerates the heights and precipitousness — must go down to immense depths. Soundings show, however, that they soon turn off to a tolerably flat bottom, that a cross section is almost like a trough with more or less sloping sides, whose height is small in comparison with the breadth of the trough. The bottom sinks towards the mouth, generally only $\frac{1}{2}^{\circ}$ to $1\frac{1}{2}^{\circ}$, but there rises again somewhat more rapidly (average = $1\frac{1}{2}^{\circ}$ to $2\frac{1}{2}^{\circ}$) towards the coast bank out in the sea, which, like a threshold, separates the fjord basin from the ocean deep without. The angles are thus very slight, but as the fjords are very long — 30 to 60 miles (Hardanger Fjord 114 miles, Sogne Fjord 136 miles) —, we nevertheless get very considerable depths in the fjord basins, viz. from 2500 to 4000 feet in the two above-named fjords.

Such a close series of characteristic and uniformly shaped fjord-basins is not found anywhere except in countries that have once been covered by inland ice. Nor is there any other natural force known that is able to hollow out such peculiar trough-like basins. Ice-cut land has always a decided, easily recognisable character, and a Norwegian fjord landscape may therefore easily be mistaken for a Greenland, or a Scotch landscape, or for a bit of one of the Swiss or North Italian lakes.

The real series of large fjords in Norway begins on the west coast with Bukn Fjord (near Stavanger), and continues thence without interruption northwards. Specially divergent forms are only found in the broad Trondhjem Fjord in the above named depression, and in Vest Fjord, which runs up almost like an arm of the sea separating the gabbro and granite islands of Lofoten from the main land. When the Highland ceases in Finmarken, the fjords too acquire another character. They become broader and shallower, less typically formed basins in the loose schist, beds, indeed, for less active and less concentrated glacier-streams, because here, in the low plateau country, there were not originally such deep cañons to determine the course of the glaciers, as on the western slope of the mountains.

In the east country the movement of the glaciers was also outwards in the direction of the general slope of the land, but here, during the great glacial period, it met with resistance from the east, from the enormous masses of ice, which were sent out from the Scandinavian peninsula over the whole of the Northern European plain. Boulders from the sides of the Kristiania Fjord give evidence of having been carried all round the south coast and northwards as far as Jæderen. The masses of ice from eastern Norway and the adjoining parts of Sweden have thus been forced by the counter-pressure of the continental side of the great glacier to the eastward, to pass along the Skagerak and farther round the south point of Norway in a wide bend northwards towards the Atlantic. This huge glacier flow, like the fjord glaciers, must have hollowed out its own bed; and we find round the whole southern coast of Norway a deep trough about 30 miles broad, with its greatest depth (2500 feet, off Arendal) a long way from the mouth (beyond Bømmeløen, where it is not more than 900 feet). This *Norwegian Channel*, which separates the narrow coast-bank of Norway from the great, shallow, submarine plain of the North Sea, must thus be regarded as an eastern equivalent to the west-country fjords.

In all formerly ice-covered countries, — e. g. Greenland, the most northerly and most southerly coasts of America, Scotland, etc. — and only in these countries there is, besides the series of fjords, at or among their mouths, another characteristic surface-form, viz. the belt of islands and skerries, called «*skjærgaarden*» in Norway. On approaching the west coast from the sea, the land first appears as an even, low strip, which rises as it is approached, and then shows that it arches up to higher summits inland. Far out, the waves are seen to break over rocks either sunken or visible, but the land still appears to form one continuous wall. Only on steering in among the rocks do we see that generally several channels open up. We twist about through a crowd of rocks and little islands; and inside large islands we find tortuous sounds, whence again deep fjords cut their way up through mountains that rise higher as the distance from the coast increases. Near the margin of the inland ice, towards the dissolving ocean, the glacier streams had freer course, could adapt themselves to the small unevennesses in the substratum, follow the lines of least resistance, according to the kind of rock, the



From the 'Skjærgaard'.

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS.

strike and stratification. They sent out connecting branches to the neighbouring streams, cut out their channels in the direction of the strike, and shaped the islands according to the diacclasis of the granite, etc. The glacier erosion is always distinguished more or less from the ordinary surface erosion by its continual change of level, and wherever a sloping ice-worn land-surface is cut by the sea-surface, we shall have, along the coast-line, a countless number of little islands and rocks, such as on both sides of the Kristiania Fjord. But it is really only along the west coast, where the great inland ice went out direct to the sea, that we find the «skjærgaard» fully developed, with large *islands* and *sounds*. Along the coast of Norway there have been counted about 150,000 islands large and small (8500 sq. miles), but along the Norwegian Channel to the south of the series of fjords, there are no islands above 20 sq. miles. The four largest, Hinnøen (860 sq. miles), Senjen, etc. lie in the Lofoten group. In the Tromsø diocese, and next to that in the Romsdal county, are found the greatest number of former islands, which, through the elevation of the land, have become joined to the mainland by low isthmuses, consisting of shingle. From Bukn Fjord, one can sail up the coast as far as Lyngstuen, inside the islands in almost land-locked water, only broken by a very few pieces of open sea (Stad Promontory, Hustadviken, and the mouths of one or two large fjords, e. g. Folla, Vestfjord). The low plateau of east Finmarken, on the other hand, goes out towards the Arctic Ocean with an escarpment produced by the breakers.

The two most prominent topographical peculiarities in the structure of Norway, which attract attention on first glancing at the map, the fjords and the belt of islands, must therefore be ascribed to the work of the inland-ice glaciers. In the less important features of the landscape too, traces of the glacial period are everywhere found.

The fjord glaciers in the west country were formed by the confluence of ice streams from all the *valleys*. These too, have everywhere acquired the same peculiar trough-shaped cross section, where the side walls curve together towards a flat bottom — U-shaped. The glacier excavation further differs distinctly from the even lines of river-erosion in a longitudinal section. Each glacier works according to its power, without being associated very closely in level with the branch valleys, as is always the case

where running water has produced the river-beds. In the deep west-country valleys especially, it is noticeable how often the trough-shaped bottom of the branch valley opens out far up the slope of the side wall of the main valley, so that the rivers must fall in rapids over the wall. Even if two glacier streams of more equal strength flowed together, it would be an exception if they had excavated to exactly the same depth; and the strong united stream again cut quickly down to a deeper level, which it would then continue to maintain more or less unaltered for some distance. In Norway there are therefore continual ledges in the longitudinal section of the valleys, alternating with *rapids* and *waterfalls*. All these are things that are unknown in countries where the rivers have had to make their own regular lines of fall, but are always characteristic of glacier-scored land. As regards practical life, it has this drawback, namely, that the rivers are seldom navigable, and then only for the distances between the falls.

On the west, there is not much room for valleys on the narrow peninsulas between the fjords, nor is the distance from the head of the fjord to the watershed at the height-axis of the country very great. The rivers in the west country and in Nordland are therefore short, although the volume of water is comparatively large on account of the heavy rainfall. The depth of the fall down to the head of the fjord is very great, and it is therefore here that the waterfalls are most numerous and highest (Valur Fos 1150 feet, Vettis Fos 853 feet, Vøring Fos and many others over 400 feet). When there is no glen right through the axis of altitude, the valleys generally end as blind valleys in a cirque with precipitous, caldron-like walls.

In the east we have longer, fairly regular, parallel valleys with the same sort of transverse section, open and flat up in the mountains, cut deep down through the plateau to the forest country, but again less marked there. Where the rivers of the branch valleys fall into the deeply-cut main valley, near the edge of the mountainous district, or over the plateau itself, there are also high waterfalls (Rjukan 344 feet). Smaller waterfalls are also general a little way above the river-mouths. The reaches in the river channels are here long, and some of the fluvial basins large (Glommen 16,000 sq. miles, Drammen's River 6600 sq. miles, Skien's River 4250 sq. miles), but the volume of water is comparatively small, on account of the smaller rainfall; and the slope is too great, and



Waterfall (Vøringfossen).

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

the rapids too numerous for the rivers to be navigable, except in a few cases.

On the plateau of east Finmarken too, we have large rivers, some of which have a more regular line of fall (Tana 180 miles, basin 4000 sq. miles).

The country between the long erosion lines with the trough-shaped cross section, between the fjords and the valleys, also bears distinct marks of glaciers. The power of the ice to excavate where the sub-stratum offers least resistance, and again to move upwards over more compact strata, produces continually undulating section lines, an endless alternation of heights and depressions, differing decidedly from the surface-forms that are due to the ordinary denudation by running water. This is most striking in the Woodland, where the beds of the granite, or the strike of the gneiss has furnished good surfaces for the removal of boulders, so that there is a constant alternation of polished knolls and pools of water or bogs, as in Nordmarken, near Kristiania. Such is the structure also over large portions of the Smaalenene and Akershus counties, where the lakes amount to almost double the usual percentage of the surface (about 4 %). On account of this structure, the forest land is often exceedingly impracticable and difficult of penetration. The Highland too is continually dotted with an infinity of lakes and bogs.

Most of the *larger lakes* in Norway, however, are found in the long valleys, generally arranged in distinct rows. The largest of them, Mjøsen (140 sq. miles, 60 miles long, 1500 feet in depth), Randsfjord, Spirillen, Krøderen, etc. generally lie at a height of about 400 feet above the sea, just outside the border of the Highland in the east country, and it is probable that it was during the last glacial period when the land area was depressed about 600 feet that the ends of the glaciers came out to the sea by this line, and excavated these rock basins at the heads of the fjords («lake period»), in exactly the same manner as they came out during the great glacial period in the series of fjords on the west coast («fjord period»). In the west country too, above the head of the upper arms of the fjord, there is a corresponding series of lakes at a height of less than 300 feet above the sea e. g. Sandven, Eidfjord and Graven lakes in Hardanger, Breim, Olden, Loen, Stryn, Hornindal lakes in Nordfjord (1594 feet in depth). Here too there are rock basins of the typical form filled

with water, answering to the erosion by the ends of the shorter glaciers in the valleys.

A fairly regular series of shallower and less uniformly shaped but often large lakes, is found in the Highland, even in most of the large valleys just within the axis of altitude, where, as a rule, there are glens, «*skar*», leading to the corresponding valley on the west side. These glens are more or less deeply cut, trough-shaped valleys that pass right across an imperceptible watershed. From



Mountain valley (Western Norway).

the bogs and small lakes that lie in them at the water-shed, rivers run down to both sides, e. g. from Lesjeskog Lake (2011 feet above the sea), Rauma westwards to the Romsdal Fjord, and Laagen southwards to the Glommen. These peculiar glens have evidently been formed at a time when the glacier movement was right across the crest of the Highland, as the «glacier-shed» lay a little to the south-east of it, so that glacier-flows were driven across the lowest ridges, and there excavated their usual trough-shaped beds, often from 1000 to 1300 feet down through the plateau. These glens are of the greatest importance in connecting the east

with the west and north countries. A little to the east of, and below these glens, and without doubt in connection with them, there now always lie elongated lakes, often several in succession, developed in an especially beautiful manner in Swedish Norrland, but also distinct in Norway. One of the largest lakes in the country (Fæmunden 78 sq. miles, 2205 feet above the sea) belongs to this series.

We thus see, all over the country, peculiar forms that must be due to the intense action of the glaciers on the earlier surface. It would be difficult to point out any part of the country that did not show unmistakable signs of ice erosion. The inland ice, during the great glacial period, must have extended above even the highest peaks in the interior of the country. During the last, lesser glacial period, when the ends of the glaciers for a long time came as far as the above-mentioned series of lakes at the heads of the fjords, the higher mountains, at any rate on the coast, and the highest peaks in the Jotunheimen, Troidheimen and Rondane, have stood above the great glacier like nunataks, and have thus not been subjected to the general grinding. They appear to have been considerably affected by the natural forces, in a different manner. Their surface is frequently broken up into loose boulders, and covered with long trains of rocky débris. We also constantly find them developed into characteristic *Alpine forms*. Little glaciers in all the hollows gradually wear down into semi-circular corries (*botner*) which cut up the original rounded mountain shapes into ridges and peaks. These «*botner*» can only be developed above the snow-limit, outside the domain of the inland ice, or in nunataks above the surface of the glacier. As the snow-limit is lowest nearest the sea, the «*botner*» are found low down there. Solitary Alpine forms, therefore, begin at a height of 1000 feet, e. g. on the Romsdal coast (the Søndmøre Alps); but their lower limit rises as the distance from the shore in a south-easterly direction increases, up to 3000 feet in the beautiful peaks of the Troidheimen, and 5000 feet at the axis of altitude in the wild mountains of the Jotunheimen, where the «*botn*»- or cirque-glaciers are actively at work to this day. Thus *above* these heights there are Alpine forms, *below* them evenly rounded mountain shapes.

If we follow the coast northwards, the Alpine forms disappear in the Trondhjem depression, only to reappear as soon as Nordland begins. We here have the well known scenery which has made the tour to the North Cape such a favorite one with tourists.

The Lofoten wall beyond the Vest Fjord is especially famous, but there is hardly any place where a more majestic panorama can be seen than the wild gabbro mountains of Lyngen in the glow of the midnight sun, splendidly developed Alpine forms rising to a height of 6000 feet straight from the broad fjord, that opens on to the Arctic Ocean in the north. The contrast to the undulating, faintly glacier-scored plateau-land of east Finmarken, with its escarpment towards the ocean (e. g. at the North Cape), is exceedingly striking.



Lyngen.

In Lyngen, Lofoten and several other places along the coast, as in the Jotunheimen, the «*botn*»-glaciers are at work to this day, but at a greater height above the sea, above the present snow-limit. About 200 sq. miles of the country are covered with *perpetual snow and ice*. The greater part of this, however, is not cirque-glaciers, but plateau-glaciers that lie like a cloak over the surface of the mountain, e. g. the Jostedalsbræ in Sogn (350 sq. miles with adjoining snow fields 585 sq. miles), Folgefon in Hardanger, Svartisen in Nordland.

The marks that the glaciers have engraved on the Norwegian rock are thus deep and varied. We see the Alpine forms lifting



Mouth of a fjord.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

their sharp peaks and horns between the glaciers, above the undulating, glacier-ground, Highland plateau. We have the series of large fjords with the Norwegian Channel round the south coast. We have the islands and sounds of the skjærgaard, the series of lakes, the trough-shaped valleys with their ledges and waterfalls, and the undulating hills and the lakes of the Woodland — all these varied types of Norwegian scenery. The sculpturing is powerful and rich, and the rock ever appears with the fresh or scarcely weathered traces of the instrument that shaped it.

But is not much of the country covered by all the material that the glaciers have thus taken out? Comparatively very little. The Scandinavian peninsula, the Baltic and Finland were the field of glacial erosion; the Central European plain in the east and south, and the North Sea in the west were the great field of deposit. Immense masses of Scandinavian rock lie all over this in the form of clay and sand and erratic boulders. The material that was carried westwards by the powerful Norwegian fjord-glaciers during the great glacial period, was piled up in the sea in front of their mouths, and now lies there in the shape of the great shore bank along the coast. If any loose material was left lying on land from the first great glacial period, it must have been taken up again by the last smaller inland ice. Only the moraine deposits of Lister and Jæderen from the glacier flow of the Norwegian channel are left lying almost like fragments of the Central European plain, added as something foreign to the mountain country.

The material that the last glacial period brought up by its glaciers and glacier rivers, was mainly deposited before the ends of the glaciers as submarine banks at the ramifications of the fjords. But as the land has since risen, we now find these marine deposits elevated in *terraces* of sand and clay, some with the sea-shells preserved. In front of the series of lakes, in the east country especially, we find large plains, now at a height of 600 feet above the sea, the only large continuous tracts of flat and cultivable land in Norway. At the mouths of the Trondhjem valleys too, there are great clay terraces of a similar height. In the west country and in Nordland we find everywhere, far up the branch-fjords, conspicuous, but short terraces at a height of about 300 feet.

In a line with the uppermost terrace a little way down the fjord, and especially farther out in the sounds, along the mountain sides, we often find marked a distinct upper limit for a deposit

of loose material, an ancient sea beach, corresponding to the terraces at the mouth of the valley. It is the old *raised beach line*. There is sometimes a shelf cut in the solid rock, but generally the shore current and the beating of the waves has thrown up a beach of clay, sand and shingle. This old shore-line, like the terraces, diminishes in height towards the edge of the coast; the land has risen most along the glacier's axis of height east of the watershed, and the loose deposits farthest out are not higher than from 30 to 60 feet above the sea. The raised beach itself is generally only from 60 to 300 feet in width. It thus seems to be quite a trifling phenomenon in the topography of the land, but is of quite extraordinary significance as regards human habitation. Above the line, there is generally the bare mountain or on steeper sides a talus, on which there grows a scanty vegetation; while from the line downwards, there is shingle and sand and clay and arable land. Human habitations in the west country generally stop, therefore, at the ancient shore-line level.

Immediately above the old marine limit, there is in the valleys too, a scarcity of loose deposits. A considerable quantity of moraine gravel, however, is often found a little way up the slope, especially in slate country, where the glacier carried more with it. About the large east country lakes, which lie in the Silurian district, there are still larger continuous tracts of bottom moraine with fertile boulder clay (Hedemarken, Toten, Hadeland). Down at the flat bottom of the valleys themselves, there is the river deposit, coarse gravel where the incline is steep, finer sand upon the level ledges.

Nor has the glacier left any considerable amount of bottom shingle beneath it, beyond the valleys, upon the Highland, or in the Woodland. In the hard granite and gneiss in the Woodland especially, there was nothing but some gravel in the hollows between the naked mountain knolls. Beyond the valleys, there is therefore exceedingly little cultivated land here above the marine step. Considerably more loose covering is found in the Highland, especially on its eastern slope, generally covered with bogs and dreary heaths.

Thus, on the whole, the loose covering plays an unimportant part in the topography of Norway, this being in strong contrast to the circumstances in other countries. The more continuous deposits of any thickness cover scarcely $\frac{1}{10}$ of the surface of the country. We can see everywhere the original shapes of the mountain

masses. We see the Highland rising in a gentle curve from the edge of the shore, and sinking down again towards the continental plain of the Woodland. And we have followed the work of the glaciers, seen the Alpine forms worked out into sharp peaks above and outside the great glacier which has shaped the ordinary undulating plateau between the river courses with the whale-like hills. And we have seen the various glacier streams hollowing



Valley (Eastern Norway).

out their peculiar beds in the solid rock in the shape of fjords, lakes, valleys and glens — a varied and magnificent sculpture.

But it is not with the bare, unweathered rock that the activity of man is associated. It is only the loose covering that is of any use worth mentioning in the struggle for existence, small though the part that it plays is, in the topography of Norway. It is with the scattered moraine tracts of the Highland that the mountain summer pasturage is associated. Much of the fertile land lies too high for any other use. It is with the poor gravel and sand tracts between the granite hills, that the thin population of the Woodland beyond the valleys is associated, and the forest has

here to give a considerable contribution towards the maintenance of human life. It is to the moraine gravel of the sides of the valleys, and the alluvial deposits of the bottom, that the population of our valleys is confined, in the east country we often find the farms following them in two separate rows. It is the loose schists in particular, that make the larger valley-parishes, such as Gudbrandsdalen and Valdres; and it is the moraine tracts of the Silurian country that present the largest continuous area of inhabited inland country, round Mjøsen and Randsfjord (See map). But all this is little to support a population upon. It is only on coming down to the marine step, to the loose masses deposited under the sea in the last glacial period, the terraced country at the mouth of the valleys, and the ancient shore-line belt along the sides of the fjord and in the sounds of the skjærgaard — it is only then that cultivable land appears in any considerable extent. Here too lives the mass of the population. It has been estimated that half of mountainous Norway lies more than 1600 feet above the sea, $\frac{1}{8}$ even above 3200 feet and rather less below 500 feet. But in this latter eighth lives about $\frac{2}{3}$ of the population, the average of the inhabited country scarcely coming much over 500 feet. The largest part of the Highland — $\frac{3}{4}$ of the country — and of the Woodland — perhaps $\frac{1}{5}$ — is exceedingly thinly populated. The Norwegians are essentially a littoral nation, in a secondary degree, a valley-dwelling people.

BIBLIOGRAPHY.

JENS KRAFT, *Topographisk-Statistisk Beskrivelse over Kongeriget Norge*. Kristiania. 1820—35.

Gæa Norvegica, hg. v. B. M. KEILHAU. Kristiania. 1833.

O. J. BROCH, *Le royaume de Norvège et le peuple norvégien*. Kristiania. 1878.

Norges Land og Folk, topografisk-statistisk beskrevet. (In course of publication, Kristiania. 1884 ff.

Den norske Turistforenings Aarbog. Kristiania. 1869 ff. (yearly).

YNGVAR NIELSEN, *Reisehaandbog over Norge*. 9 opl. Kristiania. 1899.

Norge. Dybde- og Høideforhold. Kristiania. 1900. Published by the Government Survey Office.

This institution has, in addition to general maps, coast maps, etc. published the following series of maps:

<i>Topografiske Karter</i> , to the scale of . . .	1 : 100 000
<i>Amtskarter</i>	1 : 200 000
<i>Generalkarter</i>	1 : 400 000

GEOLOGY

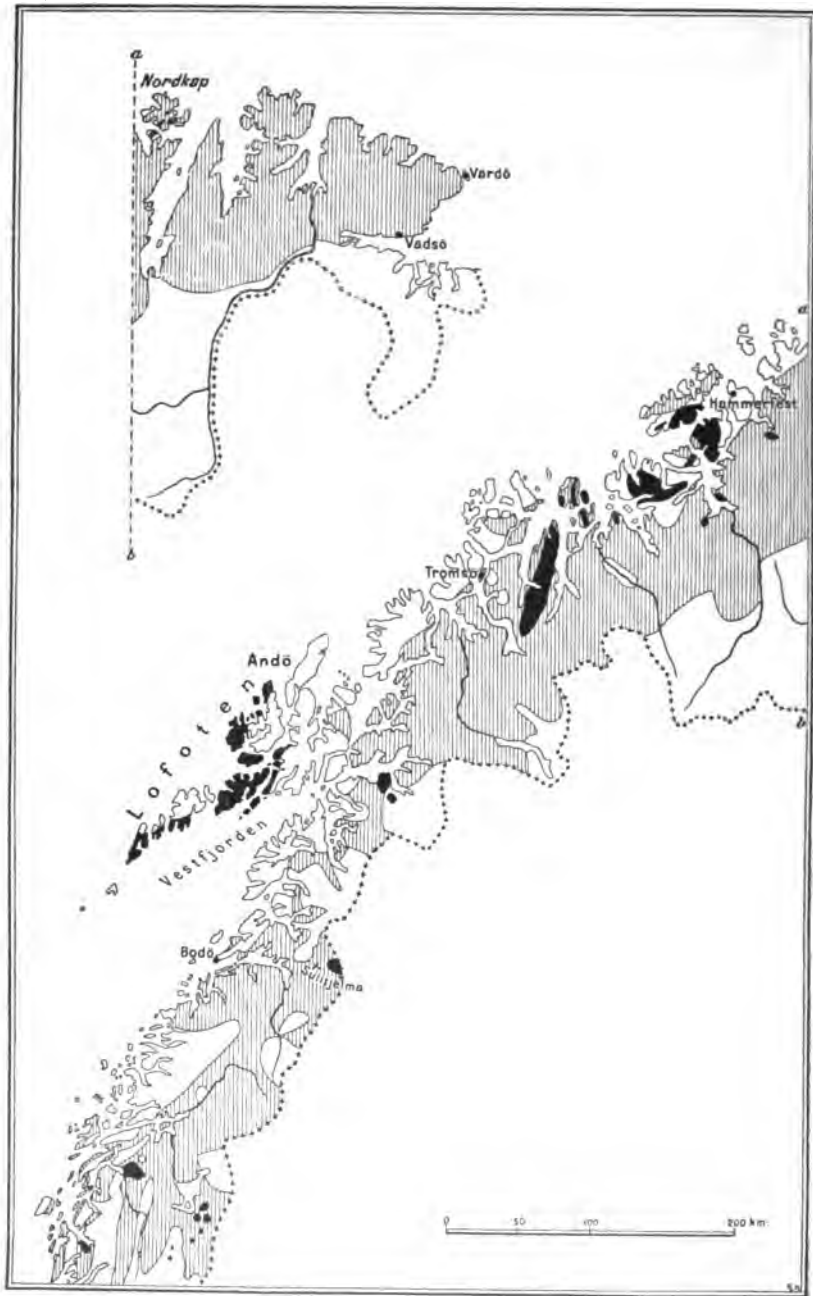
ARCHAEAN.

THE oldest rocks of the globe, which constitute the Archaean and contain no fossils, have a great extension in Norway.

An Archaean area stretches along the coast from Bergen in the south to Hammerfest in the north. This area is not continuous in its northern part, but is divided into smaller portions by younger stratified rocks. Gneiss and granitic gneiss are the prevailing rocks, the others occurring only subordinately. The strike runs, upon the whole, parallel to the coast. The Lofoten Island group, somewhat to the north of the Polar circle, which is renowned for its fisheries and picturesque scenery, consists of eruptive rocks; within the last two years it has been found that there are not only granite and syenite, as was believed before, but to a great extent gabbro and kindred rocks.

Olivine rock, which is a rather uncommon rock, occurs in the region to the north of the 62nd parallel. The chief constituent of the rock is medium-grained greenish olivine sometimes mixed with some enstatite. The olivine rock occurs in globular and lenticular masses, which vary in diameter from four kilometers to a few meters or even less than one meter. The olivine rock masses occur in the gneiss and weather with a reddish colour which contrasts with the gray colour prevailing in the gneiss surrounding it.

Olivine changes easily into serpentine. The larger masses however are metamorphosed only in their outer parts.



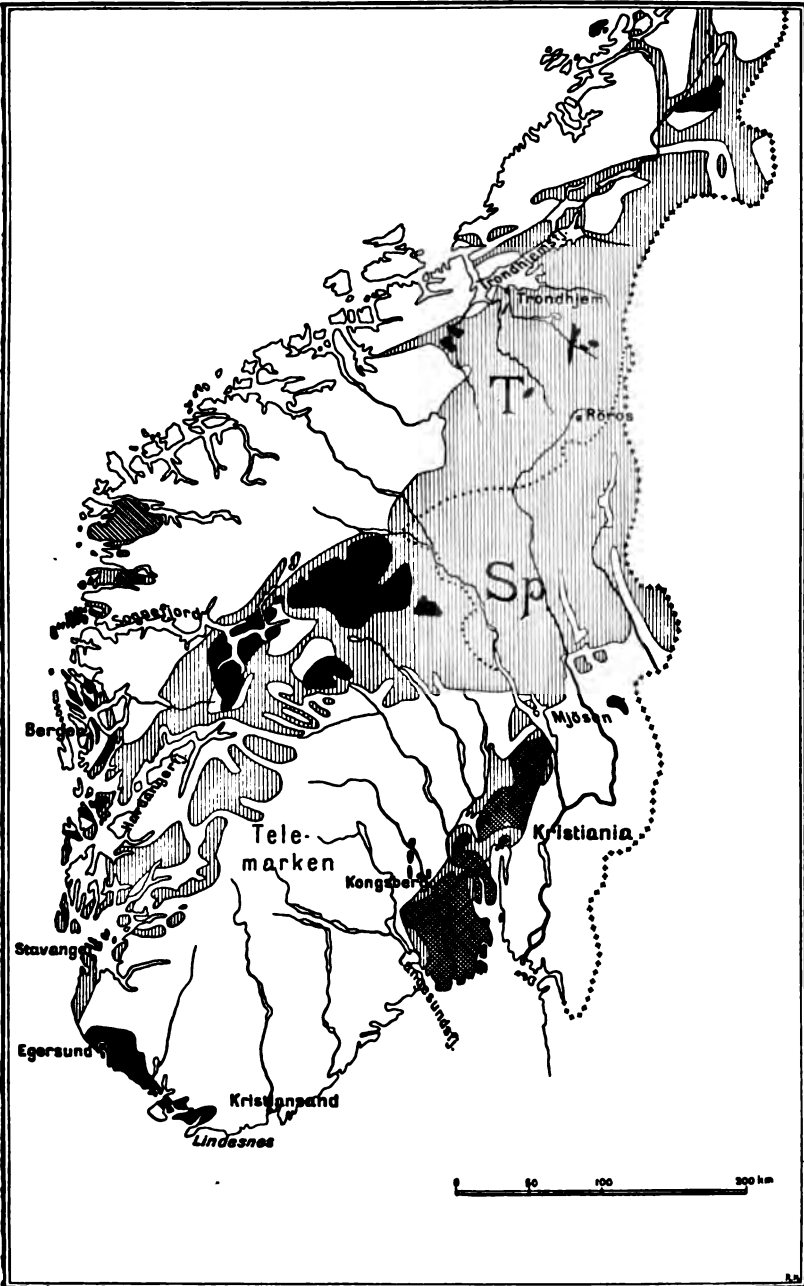
Archaean



Cambrian
and Silurian



Gabbro and
kimberlite rocks



Archean.



Cambrian and Silurian.



Devonian.



Post-Silurian eruptive rocks.



Gabbro and kindred rocks.

If we draw a line along the Hardangerfjord and continue it eastward to Lake Mjøsen, we have on its southern side a great Archaean region in which gneiss and foliated granite are prevalent rocks.

Telemarken is a province in southern Norway. A peculiar series of Archaean rocks, the Telemarken series, occurs in it and in the adjacent region to the north of it. Many of the rocks here are obviously clastic such as conglomerates, sandstones and clayslates, but besides these rocks crystalline schists as gneiss, granulite, hornblende schist also occur. The strata are folded and often traversed by granitic dykes.

Kongsberg «the King's mountain» is a celebrated mining town about two hundred and fifty years old, one of the few places in the world where native silver is the chief ore. The silver, which sometimes occurs in good crystals, besides other minerals, has made the mine well known among mineralogists. A peculiar relation existing between the ore in the veins and the «country» rock has been a puzzle to the students of ore-deposits for more than a century. The region consists of vertical strata, striking north and south, of gneiss, quartz schists and mica schists. In two bands lying in the line of stratification, the rocks contain grains and small patches of pyrites and other sulphurets. The rocks assume a rusty appearance where the pyrites occurs, and the bands can by that character be followed on the surface without difficulty. The silver-bearing veins run across the stratification in an east and west direction. The veins are vertical fissures filled with different minerals, chiefly calcite. The silver occurs in paying quantities only where the veins intersect the pyrites-bearing bands of the «country» rock. No satisfactory explanation has as yet been given for this remarkable fact. It has been suggested that the pyrites increases the electric conductivity of the rock and that currents of electricity passing through these bands have precipitated the silver from solutions circulating in the fissures, which have become the veins.

A great Norite region occurs in the vicinity of Ekersund in the south-west. Some varieties contain titaniferous iron-ore as a constituent and in a few places such ore is concentrated to dyke-like or vein-like masses which have been worked for mining purposes. From a theoretical point of view this occurrence has been of interest as showing an instance of ore-deposits formed in an eruptive way by differentiation within an eruptive mass.

CAMBRIAN, SILURIAN AND DEVONIAN.

We can form only very uncertain opinions about the condition of the earth during the first long division of its history, the Archaean period. The oldest remains of organic life have been preserved in the rocks formed during the Cambrian period and from that time, we may, as we all know, follow the history of life until the present time. In Norway we possess the oldest fossiliferous strata, but only up to the Devonian. Then a great gap follows, with only a single small patch of Jurassic strata, until the quite recent deposits of the Ice Age.

During Cambrian and Silurian time the open sea extended over the greater part of Norway. On the bottom of that sea, lime, mud, sand and gravel were laid down forming a series of strata attaining a great thickness. The organic remains therein are of invertebrate animals, graptolites, trilobites, corals and upon the whole showing the general characters which the fossils of these old deposits show everywhere.

The oldest deposits are called in Norway the Sparagmite formation, after the prevailing rock. The Sparagmite is a felspar-bearing sandstone, consequently the name corresponds somewhat to the word Arcose often used in the geological literature of other countries.

Strata of Sparagmite of enormous thickness and but little disturbed, form a great portion of the rather monotonous region in the interior of Southern Norway to the north of Kristiania (Sp on the map).

The tract between Lake Mjøsen and the little Langesundsfjord is called the Kristiania region. The interior consists of Post-Silurian eruptive rocks which are covered with forests. These eruptives exhibit a long and remarkable series of granular, crystalline, granitic and syenitic rocks and of porphyries. The eruptives are fringed by Cambro-Silurian strata. Sandstone is present here only to a very small extent, while clay-slate and limestone are the prevalent rocks often abounding with fossils. The rocks weather easily and we find here some of the best soils in Norway. The beautiful hilly country and the smiling islands in the immediate neighbourhood of the capital have this formation as their sub-soil.

Upon the Silurian slate and limestone of the Kristiania district follows a series of sandstone, mostly reddish, not separately marked on the map. Only some very few and ill preserved fossils have been found therein, probably this sandstone is Devonian, corresponding to the «Old Red» of the British Islands. The rest of the supposed Devonian of Norway forms four areas on the west coast to the north of Bergen. Fossils are absent here.

If we draw a line from the southernmost point of Norway, Lindesnes, to the North Cape, such a line divides, in a broad way, the Scandinavian peninsula into two parts, which are very different in so far as the area to the east has not been subject to mountain-making compression to any considerable extent since the beginning of the Cambrian period. We may call it «The Scandinavian-Finnish plateau». It is, upon the whole, a flat and low but uneven land, in which the Gulf of Bothnia occupies a shallow basin. The south-eastern part of Southern Norway belongs to this plateau.

To the west of the above-mentioned line we have «The Western Scandinavian Mountain Region», where the earth's crust has greatly been contorted since the Silurian period. The Cambro-Silurian rocks have been altered by this folding process, and the underlying Archaean has been squeezed into them and has also been altered.

The consequence is, that in many cases it is difficult to separate the altered Cambro-Silurian from the Pre-Cambrian rocks. An additional difficulty is, that not folding alone but also overthrusts of enormous extent seem to have played a role in the construction of the mountain region. The highest part of the Scandinavian peninsula is the district to the east of the inner part of the Sognefjord, the Jotun mountains. Masses of gabbro, which has existed before the folding process and has been acted upon by it, are here predominant and constitute the rock of the highest peaks.

While the Cambro-Silurian rocks of the Kristiania district are chiefly shales and limestones and in the Sparagmite area chiefly sandstones, in the Trondhjem area which comprises the country to the south and east of the Trondhjemsfjord, the Cambro-Silurian has quite another aspect, as great volcanic activity characterised the Cambro-Silurian period in these parts. Deposits of great thickness occurring here were probably originally composed of basic

volcanic ashes and lava-streams. The rocks are principally fine-grained and more or less schistose rocks of a greenish colour due to the presence of chlorite or hornblende in microscopical or almost microscopical grains. Acid tuffs may also have been thrown out of the ancient volcanoes, but it is more difficult to point out rocks which have been formed of these. Deep seated eruptives occur as metamorphic granite and gabbro, also a great number of dykes altered by pressure. The ordinary sedimentary deposits interstratified with the volcanic rocks show by their nature that they, as a rule, have been formed in shallow water. Beds of conglomerate attain considerable thickness. The clay-slate has in several areas been converted into mica schists. Limestone, which is generally altered into marble is often interstratified with the schists. Fossils are found in some places in the Trondhjem region. They belong to the upper part of the Cambrian and to the Silurian, but these fossilbearing localities are too few to give us more than a very limited account of the succession of rocks in this great area. Fossils are also found at very few places in the altered Cambro-Silurian of the western part of Southern Norway.

The Cambro-Silurian northwards from the Trondhjem region is even less known. Some few traces of crinoid stems have been found. Beds of limestone and dolomite attaining considerable thickness occur in some places on the coast of Northern Norway. These deposits are now beginning to be worked for marble, and it is hoped that an industry of considerable importance may develop. Some very pretty varieties consist of pressed conglomerates of limestone fragments showing different shades of red.

Some interesting ore-deposits occur in the region described. They consist of pyrites sometimes containing a small percentage of copper, making it valuable as a copper ore. The Røros coppermine has been worked for two hundred years, while Sulitjelma coppermine (somewhat north of the Polar circle) has been worked only a few years but has developed quickly. The ores occur as rather pure lenticular masses in schists. These masses attain such a very great length in proportion to their thickness that they assume the form of sedimentary strata and they have even been regarded by several geologists as having been formed by some sort of sedimentation in a similar way to bog iron ore. But it has been pointed out, on the other hand, that they always occur in the immediate neighbourhood of masses of altered gabbro. They

have in some cases been found even within the gabbro in schists formed of the gabbro by compression along shearing planes. Consequently we are induced to regard these ores as having been formed in some volcanic way, probably as veins, which have penetrated the gabbro and adjacent tuffs; in the latter case they have, as a rule, followed the bedding of the strata. The lenticular form is due to subsequent compression.

In the farthest north of Norway, to the east of the North Cape, is a sandstone region which is not unlike the Sparagmite region of Southern Norway, and probably may be contemporaneous with it. This formation has of late become of additional interest, as it has been found to contain evidence of an Ice Age of very ancient date (Cambro-Silurian?). Within the sandstone are morainic masses which contain ice-worn pebbles and rest upon surfaces which are glacially striated.

JURASSIC.

Jurassic sandstone with a few seams of coal are found on a few square kilometers on Andøen island at 69° N.

QUATERNARY DEPOSITS.

The phenomena of the Ice Age are in Norway the same as everywhere else: rounding, polishing and striation of the rocks and the occasional formation of «giants' kettles» and other effects of running water under the glaciers, deposition of different kinds of moraines and of gravel and sandplains in front of the ice. Eskers and drumlins of characteristic form are rather scarce. All our glacial deposits belong, so far as we know, to the later stages of the Ice Age and attain, as a rule, only a very limited thickness. During the period of the last melting of the ice and later, the land lay lower than at present, as is shown by the fact that recent marine deposits, sand and clay, are found to a height of about two hundred meters in the Kristiania and Trondhjem regions and to less heights on other parts of the coast. The marine shells found in the clays show a transition from a cold arctic climate prevailing during the sedimentation of the older clays to the mild

climate of the present day. Still it is noteworthy that the climate immediately before the present has been somewhat more genial than it is now. It is not the marine fossil fauna alone which shows that, but the fact that the forests, as shown by roots and stems in the peat mosses, have grown to greater heights on the mountains than they do nowadays points in the same direction.

The «strand-lines» or «raised beaches» which are especially well developed along the outer parts of our northern fjords, are clear proofs of the former lower position of the land, even to an ordinary observer. Some of these are shelves exceedingly nicely cut in the rock along the steep sides of the fjords. The waves and floating ice have probably worked together.

The «strandlines» slope distinctly from the inner part of the fjords downwards to the outer coast. In the region of Tromsø there are two «raised beaches»; the upper one slopes somewhat less than 1 meter in 1 kilometer (1 in 1000), the lower one slopes about 4 meters in 1 kilometer (1 in 250).

There has not been a continuous rise of the land but several oscillations. A rise of the land within historic time has not, at any place, been proved by undoubted facts.

Quite another kind of «strandlines» occurs in some high valleys on the southern side of the Dovre mountains. They have been formed in ice-dammed lakes like the «Parallel Roads» of Lochaber in Scotland.

BIBLIOGRAPHY.

The first Norwegian geologist was J. ESMARK, Professor at the University of Kristiania. He was one of the pioneers in the study of the phenomena of the Ice Age, for he, as far back as in 1824, pointed out proofs of a former glaciation of Norway. His Norwegian paper was reprinted in English in «The Edinburgh New Philosophical Journal» 1826—27. «Remarks tending to explain the geological history of the earth».

Esmark's successor in the geological chair was B. M. KEILHAU, to whom is due a valuable geological map of Norway and a special map of the Kristiania district. The maps are annexed to his work «*Gea norvegica*» (in German). Kristiania 1850. He held peculiar ideas about the Kristiania eruptive rocks, which he regarded as formed by some sort of metamorphosis out of the stratified Silurian rocks.

His successor TH. KJERULF gave a correct explanation of the relations of the eruptive rocks and the Silurian in «*Das Kristiania Silurbecken*». Universitätsprogram 1856. Kristiania 1855 (German).

Dr. W. C. BRØGGER has been Professor of Geology at the University after Kjerulf and has at the same time worked for the Geological Survey. The chief

object of his study has been the district of Kristiania. He has published in German exhaustive works on the Silurian and on the Eruptives.

The Norwegian Geological Survey was founded in 1858 under the leadership of Th. Kjerulf and T. Dahll. It has published in 1879 a geological map of the whole country in two sheets in 1:1,000,000. The titles are «*Geologisk Kart over det nordlige Norge*» and «*Geologisk Oversigtskart over det sydlige Norge*». The latter map is out of print as a separate publication, but it is still to be had annexed to the book «KJERULF: *Udsigt over det sydlige Norges geologi, Kristiania 1879*» (The German edition of this book «*Die Geologie des südlichen und mittleren Norwegens*, Bonn 1880» has not the map.)

The Geological Survey has also published 25 detail maps in 1:100,000; 12 of the environs of Kristiania, 11 of the environs of Trondhjem and 2 near to Bergen. These maps cost only 60 øre each. The further publication of maps on this scale has ceased, and the survey will publish instead a map of the whole country in 1:400,000. The Geological Survey has since the year 1890 published 27 volumes of geological literature which are sold at very low prices. Most of the volumes have summaries in English or German.

A complete bibliography of the Norwegian geological publications 1890—95 is given in the «Aarbog» (Year book) of the Survey for 1894—95. Kristiania 1896. It will be continued.

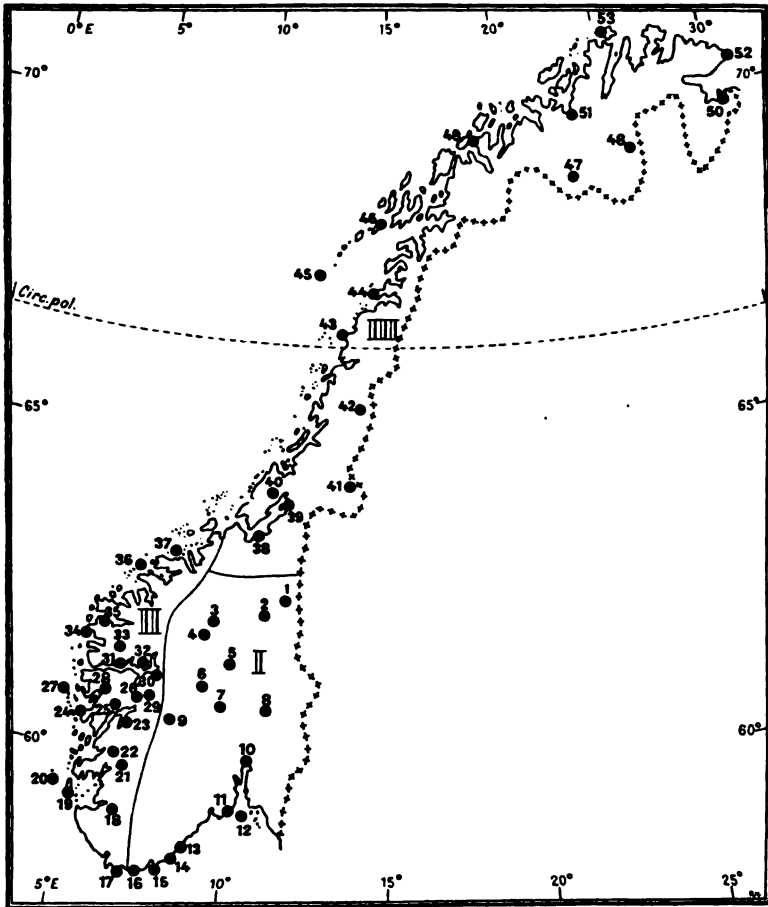
CLIMATE

THROUGH more than 13 degrees of latitude, the country of Norway stretches, long and narrow, from SW to NE, and in the north, extends almost 300 miles into the arctic zone. About 38,600 square miles, or nearly a third of the entire country, is the domain of the midnight sun and the winter darkness.

The summer day is long in Norway. Even in the southernmost part of the country, the sun in summer does not sink farther below the horizon than that twilight asserts itself all night long. In Mandal, the nights are light from the end of April to the middle of August; in Kristiania and Bergen, they begin a week earlier, and end a week later; and in Trondhjem, the light nights last from April 11th to August 31st; indeed, there is broad daylight there at midnight from May 23rd to July 20th. The actual midnight sun, however, is not seen until the polar circle is reached. In Bodø, the sun is above the horizon both day and night from June 3rd to July 7th; in Tromsø, from May 19th to July 22nd; in Gjesvær at the North Cape, from May 12th to July 29th.

But if the summer day is long and bright, the winter day, on the other hand, is short and dark. In Gjesvær, the sun is not seen from Nov. 18th to Jan. 23rd, in Tromsø from Nov. 26th to Jan. 16th, and in Bodø from Dec. 15th to Dec. 27th. It is not, however, absolutely dark all the time; for when the sky is not overcast, the twilight produces a couple of hours daylight in the middle of the day, even at the winter solstice. The farther south we come, the greater is the number of hours that the sun is above the horizon. In Trondhjem, on the shortest day in the year, it rises at 10 a.m. and sets at 2.30 p.m.; in Bergen and Kristiania

METEOROLOGICAL STATIONS.



I. NORWAY S.E.

1. Røros	2067 ft.
2. Tønsset	1634 "
3. Jerkin	3180 "
4. Domaa s	2110 "
5. Listad	909 "
6. Granheim	1312 "
7. Tonsaasen	2060 "
8. Hamar	459 "
9. Fjeldberg	3268 "
10. Kristiania	82 "
11. Larvik	59 "
12. Førder	43 "
13. Torungen	49 "
14. Grimstad	36 "
15. Oxe	36 "
16. Mandal	56 "

II. NORWAY WEST.

17. Lindesnes	62 ft.
18. Nedrebo	16 "
19. Skudenes	13 "
20. Utsire	164 "
21. Røldal	1411 "
22. Jøsendal	1132 "
23. Ullensvang	98 "
24. Bergen	56 "
25. Vossevangen	177 "
26. Kleivene	2279 "
27. Hellisø	62 "
28. Førstveit	354 "
29. Stondalen	2362 "
30. Lærdal	16 "
31. Fløeje	16 "
32. Sogndal	79 "
33. Aalhus	715 "
34. Flore	26 "
35. Daviken	36 "
36. Ona	30 "
37. Kristiansund	52 "

III. NORWAY NORTH.

38. Trondhjem	36 ft.
39. Stenkjer	26 "
40. Berge	282 "
41. Lierne	1483 "
42. Hatfjeldalen	755 "
43. Røde	33 "
44. Bodo	23 "
45. Røst	26 "
46. Svolvær	23 "
47. Kautokeino	866 "
48. Karasjøk	430 "
49. Tromsø	49 "
50. Sydvaranger	66 "
51. Alten	43 "
52. Vardø	33 "
53. Gjesvær	23 "

it is above the horizon between $5\frac{1}{2}$ and 6 hours; in Mandal $6\frac{1}{2}$ hours, to which must be added the lengthening of the day produced by the twilight. At the equinoxes in spring and autumn, day and night in Norway are, of course, as everywhere else in the world, of equal length.

In Norway, the Mid-European-time is used as the common time for the whole country.

Along the coast of Norway flows the mighty Gulf Stream from SW to NE, filling the innumerable bays and fjords with the warm surface-water of the Atlantic. The fjords themselves have a depth of up to 650 fathoms, but a submarine bank outside the shore protects them from the in-pouring of ice-cold volumes of water from the great ocean depths. For this reason the fjords do not freeze, but are navigable all the year round.

The land generally, rises perpendicularly from the coast up into high mountain-tops and wide plateaus, and in places reaches up into the regions of perpetual snow, whence glaciers descend into the neighbouring valleys.

The snow-line, in the southern portion of the country, lies, between 60° and $62\frac{1}{2}^\circ$ N. Lat., at an average height above the sea of about 4600 or 4900 feet; within the polar circle, at $66\frac{1}{2}^\circ$ N. Lat., at a height of about 3900 feet, and in Finmarken, at 70° or 71° N. Lat., at about 3000 feet.

An account of the climatic conditions of Norway, which are, of course, closely connected with the geographical situation, the form and the whole natural character of the country, falls most naturally into three sections, according to Nature's own division of the country, viz. south eastern Norway (Norway SE), western (Norway West), and northern Norway (Norway North).

I. NORWAY S.E.

South-eastern Norway is bounded on the north by the Dovre Mountains, and on the west by mountain ranges running from the Romsdal Fjord in the north to Lindesnes in the south.

Temperature. The annual mean temperature in this part of the country varies between $44\frac{1}{2}^\circ$ F. on the south coast from Færder to Lindesnes, and 31° at the highest stations, Fjeldberg

(3268 ft) in the west, Jerkin (3160 ft), and Røros (2067 ft) in the north. July is the warmest month, with a mean temperature of more than 61° from Torungen along the west side of the Kristiania Fjord up to Kristiania, where, as also in the surrounding districts, it reaches $62\frac{1}{2}^{\circ}$, becoming a little cooler up in the country. Round Lake Mjøsen and in Gudbrandsdalen, the mean temperature in July is 59° , but sinks to $53\frac{1}{2}^{\circ}$ at Domaas, and 49° at Jerkin. In the other valleys it varies in the same way between about 59° down in the valley, and 50° or 52° up on the heights. The mean temperature of June and August is only about 2° lower than that of July. In hot summers the thermometer in several places has stood at 86° and higher; once, indeed, in Kristiania, 93° was recorded. Even at such a high-lying station as Røros, the maximum temperature has been above 84° , but at the very highest, Fjeldberg and Jerkin, it has not risen higher than 77° and $73\frac{1}{2}^{\circ}$ respectively. On the south coast, no higher temperature than $80\frac{1}{2}^{\circ}$ has ever been recorded.

In September and October the temperature falls rapidly, but it is generally not until November that the mean temperature of the day falls below freezing-point. In the highest stations, however, this often happens as early as October, while on the south coast (Færder to Torungen), the mean temperature remains above freezing-point until the end of December. At Oxø and Mandal, indeed, the diurnal mean temperature does not fall below 32° until the middle of January.

The coldest months are December, January, and February. The winter is most severe in the heart of the country, in the great valleys, Østerdalen, Gudbrandsdalen, Valdres and Hallingdal, especially Østerdalen. But it is not just at the highest stations that the mean winter temperature is lowest. At Tønset, for instance, it is 11° , while at Røros, which lies 433 ft higher, it is 13° . Listad in Gudbrandsdalen has a mean temperature for the three winter months of $16\frac{1}{2}^{\circ}$, Jerkin, which is on the Dovre Mountains, 2251 ft higher, $17\frac{1}{2}^{\circ}$, Granheim in Valdres, $15\frac{1}{2}^{\circ}$, Tonsaasen, 748 ft higher, $16\frac{1}{2}^{\circ}$. As we approach the coast, the winter becomes gradually milder, with a mean temperature of from $18\frac{1}{2}^{\circ}$ at Hamar, to 25° in Kristiania; down at the mouth of the Kristiania Fjord, it is between 31° and $28\frac{1}{2}^{\circ}$, and at the very south, at Oxø and Mandal, it is only in February that there is a mean temperature below 32° .

Notwithstanding this, the thermometer, even on the coast, has now and then shown a minimum of -4° , and inland the minimum temperature observed has of course been considerably lower, not infrequently -22° , or even lower. In the most easterly valleys, the mercury has often been frozen; the lowest temperature ever observed, -50° , was recorded at Tønset. With regard also to the absolute minimum temperature of winter, this appears to be not quite so low at the highest stations as at some lying lower. For instance, at Røros it is -48° , slightly higher than at Tønset, at Jerkin -21° , as compared with $-24\frac{1}{2}^{\circ}$ at Domaas, at Tonsaasen $-18\frac{1}{2}^{\circ}$, as against -33° at Granheim. The severity of the winter in the inland districts is only equalled by its duration. Jerkin and Fjeldberg have 200 days of the year with a mean temperature below freezing-point, the stations round Lake Mjøsen about 150, Kristiania and the country on both sides of the Kristiania Fjord from 120 to 130. All the coast stations from Færder westwards, have less than 100 days with a mean temperature below 32° .

Wind. In the inland districts, calms are very frequent; the mean velocity of the wind is not more than from 1 to 4 or 5 miles an hour. On the south coast, on the other hand, it is from 9 to 13 miles an hour. There are also, on an average, from 10 to 20 days with storm there in the year, while in the interior of the country, storms scarcely ever occur — at the most twice a year. Storms are most frequent in the winter, and then generally come from the S or SW. At other times during the winter, faint land winds are the prevailing, while during the summer, the wind is generally from the sea.

Rainfall. The annual rainfall is greatest — 48 inches — on the coast about Grimstad, least — 12 inches — on the Dovre Mountains in the NW; it is also very unevenly distributed, with many, more or less sharply defined minima and maxima. While in Kristiania there fall about $23\frac{1}{2}$ inches in the course of the year, at a distance of no more than 12 miles north of the town, at a height of 1150 ft above the sea, there is an annual rainfall of more than 40 inches. The average number of wet days in the course of the year also varies very much, from about 100 to 190. Most of the wet days, and the heaviest rainfall are in July and August, the fewest wet days, and the smallest quantity of rain, in April. The duration of the falls, on the other hand, is longest

in the winter, shortest in the summer, i.e. in winter, the rain or snow falls, even if there is only a little of it, more evenly distributed over longer periods at one time, while in summer it falls in shorter, heavier showers.

Snow occurs so frequently at the higher stations, that the number of days on which snow falls amounts to more than half the total number of wet days. Snow falls least frequently on the south coast; Færder has 27 snowy days out of 107 wet days, Mandal 25 out of 116.

Hail has been observed at all the stations, but rarely, averaging from 4 times in the year to once in the course of 8 or 10 years. Destructive hail-stones very seldom occur in Norway.

Fog appears often in the winter in the form of frost fog in the Kristiania Fjord, and at a few inland stations situated on lakes or large rivers. The average total number of foggy days in the year is highest in Larvik — 71 —, and in Kristiania — 54 —, lowest at Jerkin — 4 —.

Thunder-storms occur almost exclusively in the summer months, and not often then. The country round Kristiania and Lake Mjøsen are the parts most frequently visited by storms — on an average, respectively 10 and 8 days with thunder during the year —, and the high-lying stations least frequently — on an average 2 or 3.

II. NORWAY WEST.

The western portion of the country includes the coast districts from Lindesnes to the mouth of the Trondhjem Fjord, with the innumerable islands lying off them, and many large fjords that run up from the sea, far into the massive mountain ranges that form the boundary of south-eastern Norway.

Temperature. The temperature here is fairly uniform. The mean annual temperature is highest ($45\frac{1}{2}^{\circ}$ to $44\frac{1}{2}^{\circ}$) at the most extreme coast stations; in the fjords it is only a degree lower, but falls a little more as the distance from the actual coast-line, and the height above the sea increases. At Vossevangen (184 ft) and Aalhus (715 ft), it is 41° , at Røldal (1411 ft) $38\frac{1}{2}^{\circ}$, and at several stations at a height of 2300 ft, about $36\frac{1}{2}^{\circ}$. The summer

is comparatively long; putting the last-named mountain stations out of consideration, it may be said that over the whole of western Norway, the summer lasts for nearly 4 months. July or August is the hottest month, with a mean temperature varying from $54\frac{1}{2}^{\circ}$ at Ona Lighthouse, and 61° in Sogndal and Lærdal at the head of the Sogne Fjord. Here too, a maximum temperature as high as $88\frac{1}{2}^{\circ}$ has been recorded, a temperature that has only been exceeded by the maximum recorded at Vossevangen of 93° . In Bergen the thermometer has shown 86° , but at Ullensvang in Hardanger, never higher than $81\frac{1}{2}^{\circ}$. The lowest maximum summer temperature, 75° , was recorded at Ona. All through the autumn, the temperature remains comparatively high; indeed, at the outermost coast stations from Lindesnes to Kristiansund, the average mean temperature of the twenty-four hours does not fall below freezing-point all through the winter. At Flesje and Ullensvang, the mean temperature does not fall below 32° until the end of January, while at the head of the fjords, this takes place as early as the end of November or beginning of December, and at the mountain stations, still earlier. The coldest month is February. Its mean temperature, at stations at a height of 2300 ft, is as low as $19\frac{1}{2}^{\circ}$, but even at the stations at the head of the Sogne Fjord, it has risen to $29\frac{1}{2}^{\circ}$ and continues to rise with a nearer approach to the coast, being $35\frac{1}{2}^{\circ}$ at Ona. But even here the thermometer continually shows degrees of frost during the winter. The lowest temperature that has been observed at Ona is $10\frac{1}{2}^{\circ}$, at Bergen 5° , at Ullensvang 0° , in Lærdal -4° , and at Vossevangen -33° . This last-named station seems, with regard to its extremes of temperature, to have a peculiar local inland climate; for even at stations lying as high as Røldal (1411 ft), Kleivene (2297 ft), and Stondal (2362 ft), no lower minimum temperature has been observed than $-7\frac{1}{2}^{\circ}$, -24° , and $-9\frac{1}{2}^{\circ}$ respectively. The number of frosty days in the year, i. e. days on which degrees of frost have been recorded once or oftener, plays a more important part than usual in characterising the winter in this region, as the mean temperature of the twenty-four hours on the coast, on an average, never falls below freezing-point. The most westerly stations, Skudenes, Utsire, Hellisø, and Ona have nevertheless an average of 60 frosty days in the year, and the number increases eastwards in about the same proportion as the mean temperature decreases. Kristiansund and Florø have almost 80, Bergen 90,

Flesje and Ullensvang 100, Vossevangen 140, and Røldal 165. April is the first month in the year that for all, even the highest lying stations, has a mean temperature above 32°, and in May the temperature rises rapidly, especially in the fjords.

Wind. Out at the extreme west coast stations, calm prevails comparatively seldom. The average velocity of the wind is from 18 to 20 miles an hour, and storms are frequent. At Hellisø and Ona, there are between 60 and 70 stormy days in the course of the year, while both the mean velocity and the number of stormy days diminishes on coming within the belt of rocks and islands, into the fjords, and up the mountain passes, where the average velocity is not much above 2 miles an hour, and where storms are of extremely rare occurrence, on an average, 2 or 3 times a year. Most of the storms, both on the coast and farther inland, are in the winter, and usually from the S, while the prevailing wind in the winter is generally a land wind, in the summer, a sea-breeze.

Rainfall. The annual rainfall is very great over the whole of western Norway. A little within the coast there lies a series of sharply defined zones, one after another, from S to N, about the stations Nedrebø, Jøsandal, Farstveit, and Daviken, with an annual rainfall exceeding 83 inches. From these maxima, we find that the rainfall becomes rapidly less towards the east, and on coming up on to the mountain wildernesses that border south-eastern Norway. Westwards towards the sea, it diminishes much more slowly, the extreme coast line in the south having an annual rainfall of about 39 inches, immediately outside Bergen 51 inches (Bergen itself has 75 inches), outside Florø 75 inches and at Kristiansund 39 inches. The rainfall axis indicated by the above maximal stations, is continued southwards and eastwards within the coast-line, which it follows; and it can be traced right on to the previously mentioned rainfall maximum north of Kristiania. The average number of days in the year when rain or snow falls is lowest — 121 — in the Sogne Fjord, but reaches 200 towards the coast. Most rain falls during the autumn and the first months of winter. January has, on an average, most wet days, while, as in south-eastern Norway, April has both least rain and fewest wet days. Rain or snow falls more regularly and continuously in winter than in summer.

Snow is comparatively less frequent, which is of course due to the mild winter temperature. The number of days on which

snow falls does not generally amount to more than $\frac{1}{5}$ or $\frac{1}{6}$ of the total number of days in which moisture falls in the year.

Hail is observed on the coast occasionally during the year, in the fjords extremely seldom or never.

Fog occurs most frequently in the summer, less often in the winter. The southernmost coast district has most foggy days in the year, between 60 and 70; about Bergen there are between 25 and 30, farther north and in the fjords, between 10 and 20, or even less.

Thunder-storms are not so frequent as in south-eastern Norway, but occur on the coast at all seasons of the year, except during the spring months. The so-called winter thunder-storms, which now and then accompany the cyclonic storms of winter, are characteristic of this stretch of coast. In the Sogne Fjord and at Vossevangen, on the other hand, thunder-storms occur only in the summer, but very rarely — on an average, scarcely once a year.

III. NORWAY NORTH.

That part of the country lying north of the Dovre range, has climatic peculiarities which recall both south-eastern and western Norway. Northern Norway has its Gulf Stream coast, and its inland region; but while the coast stretches uninterruptedly from the mouth of the Trondhjem Fjord to Vardø, it is only farthest south and farthest north that the distance from the coast to the frontier is sufficient to enable us to speak of a real inland in climatic respects. In the south it is the regions round the head of the Trondhjem Fjord, and in towards the Swedish frontier, and in the north the inland mountainous districts of Finmarken.

Temperature. The annual mean temperature on the coast is 42° farthest south, and diminishes northwards to 33° at Vardø. It also decreases in the fjords and up the heights. At Stenkjær, for instance, it is 39° , at Lierne (1463 ft) 33° , and in Hatfjeld-dalen (755 ft) 34° , but falls in Finmarken right down to 30° at Sydvaranger, and $26\frac{1}{2}^{\circ}$ at Karasjok (430 ft) and Kautokeino (866 ft). The average summer is not very warm, nor is it long. On the coast, August is generally the hottest month, with a mean temperature of from $55\frac{1}{2}^{\circ}$ in the south, to only 48° at Vardø. In

the inland districts, July is the hottest month, with a mean temperature of 57° round the Trondhjem Fjord, and $53\frac{1}{2}^{\circ}$ in Finmarken. But in Finmarken, at the end of June or the beginning of July, when the sky is clear and the direct influence of the sun is felt all through the twenty-four hours, the thermometer may now and then rise pretty high. In Karasjok and Sydvaranger, for instance, 88° have been recorded. In Trondhjem, there has been a maximum of 87° , and at certain other stations, from 85° to 86° , while on the other hand, in the most southern of the Lofoten Isles, out in the middle of the ocean, the thermometer has never risen above 68° . As early as the first half of October, the diurnal mean temperature falls below freezing-point in the inland districts of Finmarken, while out on the coast, the fall in the temperature takes place very slowly. At the out-lying coast stations in Lofoten and southwards, it is only in the end of January or beginning of February that the diurnal mean temperature falls below 32° . The winter temperature thus varies extremely in northern Norway. In Finmarken there is a veritable pole of maximum cold, with an average mean temperature for the three winter months, December, January and February, of 4° at Karasjok, 6° at Kautokeino, and 12° at Sydvaranger. It cannot but be said, however, that the winter temperature of this pole is rather high, as compared with conditions at the Siberian pole, where the mean temperature for January in the same latitude is -58° . The winter temperature on the coast is astonishingly high in relation to the average mean temperature of the latitude, for the mean temperature of the coldest month, which in Vardø is 21° and in Gjesvær 24° , varies from 31° to 30° in Lofoten and south of those islands. It is also well known that Lofoten is the place with the mildest winter in proportion to its northerly situation. In the fjords, the temperature is naturally lower than on the coast. Thus Alten has a mean temperature in February of $16\frac{1}{2}^{\circ}$, which we find again at the higher-lying stations farther south, e. g. Hatfjelddalen (755 ft) and Lierne (1463 ft). In Finmarken's pole of maximum cold, the very lowest temperatures in the country have been observed, viz. $-60\frac{1}{2}^{\circ}$ at Karasjok, and $-51\frac{1}{2}^{\circ}$ at Kautokeino. In Hatfjelddalen and Sydvaranger too, the mercury has been frozen, while the minimum temperature on the coast, even far up the Alten Fjord, has not been lower than -23° , at Vardø only $-6\frac{1}{2}^{\circ}$ and in Lofoten no more than 5° . The number of frosty days in

the year is, of course, greatest in Finmarken, averaging from 243 at Kautokeino to 205 at Vardø and Alten, and 188 at Gjesvær. In Hatfjelddalen, there is an average of more than 200 days of frost in the year, and at that station, as well as at Karasjok and Kautokeino, night frosts are observed in all the months of the year. The smallest number of frosty days — 100 and less — is found in Lofoten, and at the outermost lighthouse stations southwards along the coast. The temperature remains low far on into the spring, especially in Finmarken; not until the end of April or the beginning of May, does the diurnal mean temperature rise above 32°, and June has a mean temperature that is no higher than that of May farther south. Summer, however, often comes pretty suddenly in these parts, when the sun's rays, unimpeded by clouds, can exert their influence both day and night.

Wind. The average velocity of the wind, which reaches 22 miles an hour at the outermost coast stations in Finmarken and Lofoten, is also considerable elsewhere; only at the inland stations, where there are often calms and seldom storms, it is from 4 to 9 miles an hour. The coast stations of Finmarken have the greatest number of stormy days in the year, viz. 45 to 62. Trondhjem has 44, elsewhere on the coast, 20 to 30 is the most usual number. Far up the fjords and upon the Finmarken plateau, the number of stormy days does not amount to 5 in the year. Most of the storms all through the year come from the SW and W. At Vardø, however, during the summer, they are generally from the NW. The storms are most frequent in the winter, from November to March. The prevailing winds are westerly to northerly in the summer, southerly to easterly in the winter.

Rainfall. The maximal zone for annual rainfall, which as stated above, passes within the coast-line in western Norway, following its direction, continues also northwards, though not with such high absolute rainfalls. We find, for instance, a maximum of 51 inches north of the Trondhjem Fjord at Berge, and 47 inches within Rødø, as also an especially marked maximum of more than 59 inches at Svolvær in Lofoten. Otherwise, the rainfall diminishes eastwards inland towards the Swedish frontier, at several places, to as little as 20 or 16 inches. There is also a smaller rainfall on the southern and western Lofoten Isles. Thus Røst has only 28 inches annual rainfall. From Svolvær's maximum, the rainfall diminishes slowly northwards along the coast to

rather more than 39 inches at Tromsø, and 26 inches at Gjesvær. The whole of Finmarken has a small rainfall, viz. from 20 to 24 inches on the coast, from 12 to 16 inches up the fjords and on the inland plateau. Trondhjem and the most northerly coast district have the greatest number of wet days in the year — more than 200; and the stations in the fjords of Finmarken have the fewest — about 100. Most rain falls in the summer and part of the autumn (in Lofoten, however, in the winter), least in April and May. August and September have the greatest number of wet days, the fewest are in the summer and spring, except in the interior of Finmarken, where there are fewest in the winter.

Snow falls on more than half the annual total number of wet days over the whole of Finmarken, and as far south as Lofoten. South of that, the relative number of snowy days is smaller. On the Trondhjem Fjord, snow does not even fall upon a third part of the total number of wet days.

Hail has been observed on an average as many as 20 times in the year in the southernmost districts, but occurs much less frequently in Finmarken, in some places scarcely once a year.

Fog makes its appearance, on an average, from 10 to 20 days in the year, most frequently in the summer and autumn. Frost-fog occurs at the heads of the fjords.

Thunder-storms are very seldom experienced on the coast, only sometimes in winter. In the interior of Finmarken, and about the Trondhjem Fjord, there are, on an average, 4 or 5 thunder-storms in the course of the summer. In Trondhjem itself, there has been thunder in all the months of the year except April.

It will be seen from the above roughly sketched survey of the most important climatological data, that the most varied shades of continental and maritime climates are represented within the confines of Norway. In the inland districts of south-eastern Norway and Finmarken, with their severe winter and relatively high temperature-maxima in the summer, with their gentle breezes and small rainfall, we have examples of the most typical inland climate; and along the whole length of coast-line, where the winter is unusually mild,

and the summer cool, where rain falls in abundance, and the weather is unsettled and changeable with frequent storms, we have examples of an equally typical maritime climate. But in spite of these great contrasts, the influence of the Gulf Stream can be traced all over the country. It is in the power of this mighty current to heat the strata of air above it, and it thus becomes one of the chief agencies to which Norway owes her conditions as a civilised inhabited country to her very farthest bounds on the shores of the polar sea.

The meteorological observations which formed the basis for the above brief account of the Norwegian climate have been collected and worked out by the Norwegian Meteorological Institute, which was founded in 1866 as a government institution under the Norwegian university in Kristiania, and is still working under the guidance of its founder, the well-known meteorological professor, DR. H. MOHN. At the present time, the institute receives observations regularly from 456 stations, of which 350 have been established solely for the observation of the rainfall.

BIBLIOGRAPHY.

- Meteorologische Beobachtungen. Aufgezeichnet auf Christiania Observatorium 1837—1867.* Kristiania 1866.
- Meteorologiske Iagttagelser paa fem Telegrafstationer ved Norges Kyst 1861 til 1862.* Kristiania 1866.
- Meteorologiske Iagttagelser i det sydlige Norge 1863—1866.* Kristiania 1867.
- Norsk meteorologisk Aarbog. 1867—1873.* Kristiania 1868—1874.
- Jahrbuch des norwegischen meteorologischen Instituts. 1874—1898.* Kristiania 1877—1899.
- Klima-Tabeller for Norge I—IV. (Kristiania Videnskabselskabs Skrifter).* Kristiania 1895—1898.

PLANT-LIFE

IN relation to its northerly position, Norway has a very luxuriant vegetation; of phanerogams alone, there are about 1500 species growing wild in the country.

The largeness of this number is partly due to the unusual mildness of the climate in proportion to the high latitude; but it is also partly caused by the great extent of the country, which affords space for essential differences between its various parts. In the northern districts and on the mountains, for instance, there is an arctic vegetation, in the south-east a continental Central-European flora, and along the west coast there is a number of species which require an insular climate, and are indigenous to Western Europe.

The richest vegetation in the country is found in the south-east, around the Kristiania Fjord and the large lakes, Mjosen, Randsfjord and Tyrifjord; in the neighbourhood of Kristiania alone, there are no less than 900 wild phanerogams. The climate there is continental, with warm, not very short summers; the bird-cherry (*Prunus Padus*) blossoms round Kristiania on the 17th May, fruit-trees about the 20th. In Vestre Slidre in Valdres, at about 61° N. Lat. and 9° E. Long., where the bottom of the valley is almost 1300 feet above the sea, the bird-cherry blossoms on the 30th May, the first night-frosts appear about the 12th September, and the leaves fall about the 26th of the same month.

The character of the vegetation in the whole of south-eastern Norway is determined by the conifers, which form thick forests from sea-level up to a height of from 2500 to 3000 feet. Scotch fir (*Pinus silvestris*) and spruce (*Picea excelsa*) grow side by side, the

pine, however, predominating on dry ground, and going somewhat higher up the mountains than the spruce can grow. Among the conifers there is always a sprinkling of birches (*Betula odorata*), rowan-tree (*Sorbus aucuparia*) and aspen (*Populus tremula*).

In the lowest parts, up to about 1600 feet above the sea, there is also a number of Central-European deciduous trees here and there among the conifers. On talus slopes and warm hills, a luxuriant growth of oak (*Quercus pedunculata*), ash (*Fraxinus excelsior*), lime (*Tilia parvifolia*), maple (*Acer platanoides*), elm (*Ulmus montana*), and lowland birch (*Betula verrucosa*) may be met with. These trees are secondary to the conifers, and only occasionally form small woods; but they nevertheless give to the lowland flora its characteristic stamp. A number of herbaceous plants are found together with them, which also belong to the continental parts of Central Europe, and which, in Norway, are only found in the lowlands of the south-east. As examples we may name the blue hepatica or liver leaf (*Anemone hepatica*), which carpets the woods in April and May with its flowers, as well as other perennial spring flowers such as *Primula officinalis*, *Viola mirabilis*, *Saxifraga granulata*, *Orobus vernus*, *Glechoma hederaceum*. Here too are several of our rarest orchids, which are only found on warm dry hills in the south-east, such as *Ophrys myodes*, *Cephalanthera rubra*, *Neottia nidus avis*.

The late Norwegian phytogeographer, AXEL BLYTT, has called this zone of vegetation the *region of «boreal» (half-hardy) deciduous trees*. It is characterised not only by the deciduous trees and continental, southern, herbaceous plants, but also by the fact that the cultivation of corn is mainly confined to this region. Certain kinds of corn, e. g. barley, can indeed ripen as high as 2600 feet above the sea, but as the harvest is more or less uncertain, there is not much corn cultivation done above 1600 feet.

Above the region of boreal deciduous trees, there is a zone in which the conifers are almost alone in the field. It extends to about 2600 feet above the sea, though the limit is not everywhere equally high. It is highest in the most continental parts of the country, in Østerdalen and Gudbrandsdalen. Here the conifers so greatly predominate, that they pretty well dislodge all plants that cannot grow in their shade. In the spruce-woods themselves, the flora is very deficient in species, but on the other hand, the

abundance of specimens is comparatively great. The ground in the forests is always carpeted thickly with green.

Generally it is the leafy mosses that form the carpeting (*Hypnum splendens*, *Schreberi* and *triquetrum*), but in the moss there is always a small number of phanerogamous plants, which appear in great quantities. The bilberry (*Myrtillus nigra*), for instance, is a characteristic plant in the spruce woods; the whortleberry (*Vaccinium vitis idæa*) is found most frequently in rather open, dry spots, where the pine predominates. Of these two kinds of berry, the Norwegian woods produce an enormous quantity every year, most of which is left untouched, as it does not pay to gather it on account of the expense of labour and inadequate means of communication.

Among the wood plants we may name the pretty, fragrant *Linnæa borealis*, which is found in great quantities, and different species of *Pyrola*, with their evergreen leaves. The large brake fern (*Pteris aquilina*) is especially conspicuous, and some few species of *Lycopodium*.

In dry places where the soil is shallow, the woods are more open. Here juniper (*Juniperus communis*), ling (*Calluna vulgaris*) and black crowberry (*Empetrum nigrum*) are most abundant. These little shrubs are among the most easily contented plants in our flora, and have, therefore, a wide distribution over the whole country, from sea-level to high up on the mountains.

The species of lichen also form an essential part of the vegetation. The reindeer moss (*Cladonia rangiferina*) is found all over the woods, especially on large stones or rocks; on dry soil in the pine woods, it sometimes quite gains the upper hand, and covers the ground with a light grey carpet. There are also many other species, both on stones and trees. The species of *Usnea* (*U. barbata*, *U. longissima*) are particularly conspicuous, covering the branches of the spruces with long grey tresses.

Here and there in the forests there are bogs in which the conifers cannot grow. Here the low growth is generally composed of *Sphagnum*, and on the mounds grow sedges (*Carex*), ling (*Calluna vulgaris*), bilberry (*Myrtillus nigra*) and blaeberry (*M. uliginosa*). Here too are great quantities of cloud-berries (*Rubus Chamæmoris*) with their pretty and palatable, orange-coloured fruit.

The undergrowth of the forest is somewhat more luxuriant by deep water-courses, and on steep slopes covered with rich soil,

especially when the slope faces the south. The deciduous trees are here abundantly represented as well as the conifers, and on the hills are numerous herbaceous perennial plants, which sometimes grow to the height of a man. The fronds of ferns such as *Struthopteris germanica*, *Asplenium filix femina*, *Polystichum filix mas* and *spinulosum*, form large, light green patches, while among them is found *Campanula latifolia*, with its long spikes of large, pale blue bells, and many other tall flowering plants with large green leaves (*Aconitum septentrionale*, *Mulgedium alpinum* and *Crepis paludosa*).

A few tall forest grasses with large flat leaves (*Milium effusum*, *Festuca silvatica*, *Calamagrostis*) are also characteristic plants in these luxuriant slopes, where the perennial plants grow so tall in the summer that it is often difficult to make one's way through them.

Above the limit of the conifers (about 2600 feet), there is a region where the birch (*Betula odorata*) is the only forest tree, though rowan-tree and bird-cherry are sometimes found here and there among them. The *birch zone* reaches to 3000 or 3500 feet above the sea. Its vegetation gives a richer impression than that of the conifer forests, for the birches stand farther apart, and allow more light to penetrate to the ground, than do the conifers. On the warmest slopes, vegetation may be very luxuriant. We here find, to some extent, some of the plants that grow lower down, e. g. *Aconitum septentrionale*, *Geranium silvaticum*; but on the other hand, the true mountain plants now begin to assert themselves. The plants characteristic of the birch slopes are the tall white ranunculus (*Ranunculus aconitifolius*) and the large-flowered forget-me-not (*Myosotis silvatica*).

Above the birch limit, two zones of vegetation may still be distinguished, viz. the *willow zone* and the *lichen zone*.

In the willow zone there are no trees, but frequently a dense growth of bushes scarcely as high as a man. It is the dwarf birch (*Betula nana*) and species of willow (*Salix glauca*, *lanata*, *hastata*, *lapponum*, *phylicifolia*) that give to the vegetation here its character. In the first three species of *Salix* named, the leaves are grey and hairy, while the last two have smooth, dark green leaves.

In the lichen zone, the reindeer moss (*Cladonia rangiferina*) predominates; what bushes there are, are creeping specimens, which

grow in tussocks, or hide their branches among the lichens, so that only the leaves show above them (*Betula nana*, *Juniperus communis* var. *nana*, *Salix reticulata*, *herbacea*, *polaris*).

The herbaceous arctic plants grow in the lichen zone, the willow zone and the birch zone, indeed, several of them are found even lower down than the upper limit of the conifers. Arctic plants are almost exclusively perennials, which often grow in dense tufts. As characteristic plants may be named the pretty, white-blossomed *Dryas octopetala* — which grows in some places like a thick mat — and several species of the genus *Gentiana*, among which is the little *Gentiana nivalis*, recalling, by its deep blue colour, its relatives in the Alps of Central Europe.

The arctic heaths are also characteristic of the mountains. They have tough, woody branches, forming dense tufts; the leaves are generally small and narrow, almost acicular. In July and August the tufts are covered with flowers of a red or white hue. We may mention the pretty little white *Andromeda hypnoides*, *Azalea procumbens* with rose-coloured flowers, and *Phyllodoce cærulea*, with rather large, reddish purple bells.

Among other characteristic plants we will mention the saxifrages, first and foremost the stately *Saxifraga Cotyledon* with its bunches of white flowers, which adorns the clefts in the precipitous rocks, where it is often almost inaccessible, the yellow *Saxifraga aizoides*, and the early spring plant, *Saxifraga oppositifolia*. The last-named has small, thick, imbricate leaves, which secrete carbonate of lime from a gland on the upper surface. Its reddish purple flowers unfold as soon as the snow disappears.

This plant belongs to the species that can live at the very top of the mountains. It is found right up to the limit of perpetual snow, about 6000 feet above the sea. It is only a few species that can thrive at this height. Among the stones there are a few blackish brown mosses (*Andreaea*) and on the mountain itself grow some crusty lichens, such as the well-known yellow *Lecidea geographica*. Here and there a little saxifrage is visible or a small tuft of grass or rushes, especially *Luzula spicata*, or the white *Ranunculus glacialis*. This interesting plant is found more especially on the highest mountains; it appears to thrive best where its roots can be continually moistened with water from the glaciers. Its distribution is over the same tracts as those which the reindeer frequents, and it is eaten with partiality by that

animal. Judging from NORMAN'S investigations, it is therefore probably the reindeer that disseminates it.

The above-mentioned arctic plants do not occur everywhere on the mountains in the same abundance. Most of the mountain wastes have a very poor and uniform flora. The greatest wealth of species is found in the most continental part of the country, where the climate is comparatively dry, and the summer warm. According to the results of A. BLYTT'S investigations, the geological sub-stratum has a great deal to do with the welfare of these species. The mountains where the arctic flora is developed in greatest abundance, consist of loose, easily disintegrated mica-schist. The harder kinds of rock, on the other hand (granite, gneiss, quartzite), have a very poor flora. Dovre is especially famous for its rich arctic flora; at Kongsvold, in particular, every summer, even foreign botanists come to stay, as the locality affords easy opportunity for the study of the arctic plants in their typical development. Among the rare forms found may be named *Artemisia norvegica* and *Campanula uniflora*.

While south-eastern Norway consists of great undulating mountain wastes intersected by fairly wide, fruitful valleys, the western part is a rugged fjord-region, where the mountains rise in wild peaks, and where the sides of the deep fjords are only precipitous slopes with very little soil, the valley-bottom being occupied by the fjords themselves. At the mouth of the fjords, and on the great belt of islands, the mountains are not so high, but are even barer; the climate, owing to the influence of the Gulf Stream, is quite insular, and the flora has therefore an altogether different character to that of the east country.

At the upper end of the fjords, the influence of the sea is scarcely perceptible. Here we find for the most part the same species as in the east country. On warm slopes grow the same boreal deciduous trees that characterise the lower-lying regions of the east country, and with them several other typical east country plants (e. g. *Aconitum septentrionale*, *Struthopteris germanica*).

In one respect, however, even the innermost fjord districts differ essentially from the east country, namely, in the almost total absence of the spruce as a forest tree all over the west country. Single specimens are found here and there, and it grows well when planted; but palæontological investigations have shown that it is only in recent times that it has migrated into the country from

the east. Pine and birch are the trees of the west country. Their upper limit is somewhat lower than in the east country, just as the snow limit sinks as the sea is approached. The pine, for instance, in the upper part of the Hardanger Fjord, is only found up to about 2000 feet above the sea, the birch up to 3000 feet; in the middle part of the fjord, at Strandebarm, the birch scarcely reaches a height of 2000 feet above the sea.

Farther down the fjords, the east country plants disappear one after another, as the climate becomes more insular, and the upper limits of the various plants become lower. This sinking of the upper limits is also perceptible in the circumstance that several pronounced arctic plants on the west coast find their way far down into the lowlands, indeed, some are found close to the shore, e. g. the graceful little *Alchemilla alpina*, with its silvery leaves, and the thick-leaved rose-root (*Sedum Rhodiola*).

The great belt of islands round the coast are barren and bare, especially when seen from the sea; but no sooner do we come into places that are sheltered from the direct influence of the sea-breezes, than we find quite a rich vegetation. In the crannies in the rocks grow thickets of oak and birch, aspen and rowan-tree, indeed, here and there even a pine may be found in particularly sheltered spots.

A number of the common east country plants are missing here, but on the other hand, there are others, though not so many as to allow of a comparison of this flora, as regards wealth of species, with that of the east country. The hills are covered with the cross-leaved heather and Scotch heather (*Erica Tetralix* and *cinerea*), and among them are found the slender yellow-blossomed species, *Hypericum pulchrum* and *Narthecium ossifragum*, tufts of *Blechnum spicant* and *Allosorus crispus*. Most beautiful of all the coast plants is the stately, poisonous fox-glove, *Digitalis purpurea*; it is found in great abundance all over the coast. It may be absent far up the fjord valleys, where it is replaced by the east country plant, *Aconitum septentrionale*. Of woody plants that are characteristic of the west coast may be named the holly, *Ilex aquifolium*. Ivy (*Hedera Helix*) is also a coast plant, which, however, also penetrates into the Kristiania Fjord.

The effect of the damp climate on the west coast is also evident in the far greater number of bogs than in the interior. In the belt of islands, little peat bogs may be found, not only in

hollows and on flat country, but also on slopes. The rocky knolls round about are carpeted with bog-moss (*Sphagnum*), and taller bog-plants flourish. For this reason, bog-plants occur in greater numbers than in the east country, and thus often impress the vegetation with their character. We may name, as an example, the spotted orchis (*Orchis maculata*); it is a characteristic plant in the west country, and is found in quantities on the rocky knolls, while in the east country it grows almost exclusively in swampy meadows. The typical west country plants, the *Ericas* and *Narthecium*, must also be described as bog-plants.

The west coast is especially rich in mosses. Several naturalists have here found a number of Atlantic forms, which are most widely distributed in more southerly regions.

North of the Dovre Mountains, the flora most resembles that of the east country. Around the Trondhjem Fjord there are large tracts of flat cultivated land, and, as in the east country, the spruce is the predominating tree. The whole of the district of Trondhjem and the southern part of Nordland is described as an undulating sea of spruce-woods, in which higher mountains, woods of other trees, large bogs and cultivated fields are only to be regarded as islands of no great extent. The flora of the spruce woods is very poor as regards species, and, as in the south, the undergrowth is composed of mosses, bilberry and a few other vascular plants.

The upper limit of growth is lower here than south of the Dovre Mountains. In the valleys of the interior, the birch grows up to 3000 or 3300 feet, on the coast, much lower; the limit of the pine in the interior is about 2000 feet above sea-level, but is lower on the coast, as for instance in Hevne, 1100 feet, on the large island of Hitteren, 600 feet above the sea. The higher latitude also shows its influence on the vegetation in the arctic plants which begin to appear in the lowlands.

The extreme coast region is destitute of forest, and is also without a number of continental plants that are found inland. But the coast plants of Western Europe also gradually disappear north of Stad. The coast, therefore, possesses a very scanty flora of common species.

Within the polar circle the spruce woods disappear. The birch is here the most important forest tree, while the pine is found only in the inland valleys. The extent of the birch-woods depends

partly upon their height above the sea, partly on their distance from the coast. In the inland valleys, there are birch-trees up to 1600 and 2300 feet above the sea, while along the coast they are rarely more than 1300 feet. Above these limits, however, the birch is often found in the form of a shrub, together with willows and dwarf birch.

In the birch slopes there is often a luxuriant, varied vegetation of many different species. These are to some extent southern forms, which here have their extreme out-posts to the north, to some extent arctic plants, most of which, in Nordland and Finmarken, go right down to the sea.

The richest flora is found in the inland fjord valleys, both the southern forms and the arctic plants preferring the continental climate. In the valleys of the interior the vegetation is often very luxuriant. In Tysfjord, for instance, the wild raspberry (*Rubus idæus*) and strawberry (*Fragaria vesca*) bear abundance of fruit nearly every summer, and the fruit has an aroma that is quite unknown in lower latitudes.

The arctic plants are most numerous represented in the valleys, where the sub-stratum consists of loose mica-schist. Salt-dalen, Maalselvdalen, Lyngen, Alten and Sydvaranger are localities where the arctic flora is developed in special abundance. On the mountains here are found, in the main, the species that occur on the Dovre Mountains, although there are a few extreme arctic plants that have their southern limit in Nordland, e. g. two species of *Gentiana*, *G. involucrata* and *G. serrata* — the latter has large, deep blue flowers — two peculiar *Rhinanthaceæ*, *Pedicularis hirsuta* and *flammea*, and the pretty yellow *Ranunculus sulphureus*.

Rubus arcticus, the arctic raspberry, is an east country plant indigenous to Finland and northern Sweden. In Norway it is found almost exclusively in the most northerly parts, in valleys where the watershed on the frontier is rather low, so that it has had the opportunity of migrating thither in comparatively recent times. It occurs in several places in abundance, but does not bear fruit every year.

In the coast regions of Nordland and Finmarken, the flora is very uniform and poor as regards species. The Western European species, which gave to the west coast flora its peculiar character, are almost entirely absent, as are also the more sensitive mountain plants and south country plants. The species forming the bulk of

the vegetation are such as are not very particular as to their conditions of life, and are therefore found over almost the whole country. Blaeberry (*Myrtillus uliginosa*), black crowberry (*Empetrum nigrum*) and dogberry (*Cornus suecica*) cover the mountain knolls. In many places, moreover, there are large bogs, where the cloudberry (*Rubus Chamæmorus*) is the characteristic plant. Its orange-coloured fruit is very palatable, though acid; it is sent from Nordland in great quantities to the southern parts of the country. Andø is especially famous for its extensive, luxuriant cloudberry bogs. Bilberry and whortleberry are also found in great quantities in the north of Norway, both on the coast and inland.

J. M. NORMAN has carried out very minute phytogeographical investigations in the arctic parts of the country. As human habitations in these districts are very scattered, and the effect of civilisation upon the vegetation is therefore slight, he found here unusually favourable circumstances for studying the natural conditions that contribute to the spread of the species. A few species are found only in places where there are, or have been human habitations, and to which the domestic animals have had access; they are indeed still spread by the aid of domestic animals, e. g. *Ranunculus repens*, *Stellaria media*. Others are spread by birds, especially those with fleshy seeds, such as the cloudberry. And lastly, there is a number of species that are scattered by ocean currents, the seed becoming entangled in drifting sea-weed, and being carried in to the shore in the bays.

Of the cultivated land, the meadow-land is the least affected by civilisation. The greater part of the meadows are «natural»; it is the grasses belonging to the land that are allowed to contend for a place on it. These meadows are very beautiful in the summer when in full flower; the grass is fine and soft, sprinkled with a variegated mixture of wild flowers. The principal sorts of grass are *Agrostis vulgaris* with its brush of fine, reddish brown hairs, the yellowish green, fragrant *Anthoxanthum odoratum*, and the silvery *Aira cæspitosa*. Among the meadow flowers may be named *Ranunculus acris* and *Rhinanthus* with yel-

low flowers, *Campanula rotundifolia* with blue flowers, *Lychnis flos cuculi* with pink flowers, and lastly *Anthriscus silvestris* with its erect stalks and delicate white umbels.

Particularly in the south, artificial meadows of perennial forage plants are much used. The species employed are timothy grass (*Phleum pratense*) and species of clover (*Trifolium pratense* and *hybridum*).

All along the coast of Norway, sea-weeds grow in great abundance. The numerous indentations of the coast occasion variations in the conditions of the vegetation, and as the bottom is generally firm, it is nearly always thickly overgrown with sea-weeds down to a depth of 60 or 90 feet.

On the beach, the various kinds of sea-wrack predominate (*Fucus vesiculosus*, *F. serratus*, *Ascophyllum nodosum*, *Pelvetia canaliculata*). They make horizontal formations, those species which can bear most dryness growing uppermost. The very highest are bluish green sea-weeds, and two or three inferior red sea-weeds (*Porphyra*, *Bangia*), which are satisfied with a sprinkling of sea-water. On more exposed places on the shore are found some finely branching rhodosperms (*Ceramium*, *Polysiphonia*); they often form thick tufts, which retain the water between their branches when they are laid bare at low tide. In the north of Norway, several large rhodosperms also appear regularly on the beach, such as the pretty *Rhodymenia palmata*, which is bleached by the sunlight, so that its flat branches exhibit every shade of colour, from a reddish purple to a yellowish green. Beyond the lowest low-water mark, there are other species, first of all the large, brown sea-tang (*Laminaria digitata*, *L. Cloustoni*, *L. saccharina*). The first two species have the appearance of trees with a lobed limb instead of a crown. They form whole forests along the extreme coast. They are tough and firm, and move gracefully with the waves. In their shelter, and on their stems grow the smaller forms, pretty crimson rhodosperms especially of the genera *Delesseria* and *Ptilota*.

Laminariæ are found in such large quantities that they acquire an economic importance. In stormy weather they are torn away and carried to shore, where they are collected and burnt, the ash

being used especially for the extraction of iodine. Successful attempts have also been recently made to extract iodine direct from the sea-tang without burning, whereby several of the organic substances in it are also utilised, especially pectine substances.

Other sea-weeds are much used as forage, especially *Alaria esculenta*. Of peculiar forms may be further mentioned the pink calcareous sea-weeds, the genus *Lithothamnion* especially being abundantly represented. They form crusts, or thickly branching masses, that look like coral. They sometimes grow to half a yard in diameter.

The sea-weeds along the coast grow all the year round; indeed, many kinds, such as *Laminaria*, form their reproductive organs during the winter. The same is the case with the floating organisms in the sea, the plankton; all the year round, in the sea along the Norwegian coast, great quantities of unicellular algæ are found drifting about with the ocean currents, in greatest abundance in the spring and autumn. These organisms possess great importance as the primitive nourishment of the sea; latterly their occurrence has been utilised in the study of the direction of the ocean currents.

BIBLIOGRAPHY.

- M. N. BLYTT and A. BLYTT, *Norges Flora, I—III*. Kristiania 1861—77.
 A. BLYTT, *Om vegetationsforholdene ved Sognefjorden*. Kristiania 1869.
 C. HARTMAN, *Handbok i Skandinaviens Flora, 11 upl.* Stockholm 1879.
 J. M. NORMAN, *Norges arktiske flora*. Kristiania 1894—.
 F. C. SCHÜBELE, *Die Pflanzenwelt Norwegens*. Kristiania 1875.
 Viridarium norvegicum, B. 1—3. Kristiania 1885—1889.
- B. KAALAAS, *Levermosernes udbredelse i Norge. 1893. (Nyt Magasin for Naturvidensk., B. XXXIII.)*
- J. E. ABESCHOU, *Phyccarum, quæ in maribus Scandinaviæ crescunt, enumeratio, I—II*. Upsala 1847—1849.
- M. FOSLIE, *Contribution to the Knowledge of the Marine Algæ of Norway, I—II. 1890—1891. (Tromsø Museums Aarshefter 13, 14.)*
- F. R. KJELLMAN, *Handbok i Skandinaviens Hafsalgflora, I*. Stockholm 1890.
- JOHAN HJORT & H. H. GRAN, *Currents and Pelagic Life in the Northern Ocean. 1899. (Bergens Museums skrifter, B. VI.)*

ANIMAL LIFE

THE fauna of Norway belongs to the so-called Palæarctic Region. It is thus similar, in a great measure, to that of the rest of Northern Europe, and also to the faunas of Central and Western Europe. Nevertheless, our animal life contains more extremely arctic elements, remains from the glacial period, when the whole country was covered with ice, as Greenland is at the present day. On our mountains, and in the northern districts of the country, we find several of the animals that live in the arctic regions, the reindeer, the mountain or arctic fox, the ptarmigan, the snow bunting, various insects, etc.

This arctic character appears perhaps most distinctly in the animal life that the dredger in our narrow, deep fjords brings to light. In them live various fish and invertebrates, which we only find in the arctic regions, or out in the great ocean depths. This arctic fauna is most marked in the fjords; on the coast, on the other hand, it is intermixed with more southern forms, animals which we find on the other shores of the North Sea, on the shores of the Atlantic, and even in the Mediterranean. The reason why the fjords have a more arctic animal life than the coast is that there is a sub-marine wall, or barrier, extending all along the coast. This barrier, which is partly an enormous moraine, lies at a depth of from 400 to 600 feet, while the depth of the fjords may be nearly 4000 feet. The barrier thus shuts off the fjord depths from the ocean depth without, and its continuation, the Norwegian channel, round the south coast. These closed basins have therefore been able to retain species of animals, whose true home must be sought for in higher latitudes. The animals,

however, do not attain to such a height of development in the fjords as out in the ocean depths, or in the arctic regions, as the barrier also prevents change of water, so that the water in the fjord depths has comparatively less oxygen and more carbonic acid than the water out in the open sea. The barrier or «edge», as it is called, also possesses great economic significance, for it is upon it, or along its outer margin, that some of our largest fisheries are carried on.

A vertical section of one of our fjords would have the form of a U. In the middle we have an evenly deep part that is covered with fine, gray loam, in which we find animal life with comparatively few species, but, on the other hand, so much the greater number of individual animals. Of the animal forms characterising this loam may be named the sea-pens, such as the magnificent, gigantic, orange-coloured *Pennatula grandis*, *Cophobelemnion stelliferum*, etc., various sponges, worms, sea-slugs, sea-stars, molluscs and crustaceans, among which is the famous Svelvik prawn (*Pandulus borealis*) which receives its name from a little town on the Drammen Fjord, where it is industriously fished in the winter. Of fish living in the depths may be especially mentioned various species of skate, *Chimera*, *Læmargus*, *Coryphænoïdes*, *Sebastes*, etc.

From the middle channel, the bottom rises steeply to the surface, often somewhat precipitously, to a height of many hundred feet. A dredger in the Norwegian fjords can, in one draw, near the shore, get littoral animal forms simultaneously with deep-water forms that are only to be obtained from the greatest depths of the fjords. On these precipitous slopes there is an unusually abundant animal life. On the lowest platforms we have *Lima excavata*, *Phellia abyssicola*, the beautiful *Echinus elegans*, and various gorgonids (*Paragorgia*, *Paramuricea*, *Primnoa*), and the nearly-related *Aleyonidæ*, *Sarcophyton*, *Duva*, etc. The gorgonids are also met with higher up. Among their branches live the many-armed medusa-heads (*Gorgoncephalus*) and some other brittle-stars and star-fish. We find further, peculiar sea-spiders (*Nymphon*), various crustaceans, ascidians, worms, hydroids, sponges, etc. It will, however, take too long to describe more minutely the animal life that swarms here. In among the gorgonids too are numerous fish lying in wait for their prey. On the edge of sub-marine crags such as these, there is therefore always good

fishing to be had. On the oceanward slope of the above-named edge, there is a similar, but still more abundant animal life. Here too is the haunt of millions of cod, from the time that the year-and-a-half-old fry set out to sea, to the time when they return again, fullgrown, to the coast to spawn.

In spite of its abundance, there is something uniform in the animal life in such suddenly deep places. Where it is more flatly shallow, or rather where the steep parts are replaced by plateaus covered with sand and shingle, we find not only the above-named animals, but a great number of others, sea-urchins, star-fishes, brittle-stars, crinoids, molluscs, worms, ascidians, etc. The fish that specially characterise the sandy bottom are flat-fish, flounders. A bottom consisting of loam mixed with fine sand and fragments of shell is also called a halibut bottom.

At the top we have the littoral zone. It may also be called the algæ zone, for it is the algæ, and especially the laminariæ, that give to it its peculiar stamp. Any one desirous of studying it must go out to the coast, to the sea, for there it attains its highest degree of development. It is in this region that we find the greatest number of southern European animal forms. On the sea-weeds are numerous *Nudibranchiata*, such as *Doris*, *Eolis*, *Dendronotus*, also various *Echinodermata*, such as *Asterias*, *Porania*, *Solaster*, *Ophiocoma*, several species of ascidians, and both simple and compound hydroids etc. Among the stones, or in the cracks in the rocks, lobsters are hiding, the Norwegian lobster (*Nephrops*) and various kinds of crabs, etc. On the sand we meet with *Mya*, *Pecten* and several other bivalves, and on the rocks *Patella*, *Buccinum*, *Mytilus*, *Balanus*, *Alcyonium*, etc. This region is also inhabited by numerous kinds of fish, and is the haunt of the small fry of most of our food-fish. In more land-locked waters, creeks of brackish water in southern and western Norway, lives the oyster, which in former times had a much wider distribution than in our day. Some of these creeks, in which the temperature, on account of peculiar physical conditions, sometimes rises to 70° or 80° Fahr., are first-rate breeding places for this mollusc.

Of land and fresh-water molluscs, 121 species are known in Norway, most of which also occur in the rest of Northern Europe. On account of the mild maritime climate, they are found farther north in Norway than in the adjoining countries. The northern limit of *Limax maximus*, for instance, in Norway, is 66° 49′,

while in Sweden and Finland, it is not found farther north than $62^{\circ} 6'$. Most of the molluscs are found in the south, and especially round the Kristiania Fjord, which presents most favourable conditions for them. In the north, the number of species is limited to 52. In certain rivers where the pearl-mussel (*Margaritana*) occurs in large numbers, it is fished to some extent. It is moreover the only one of our land and fresh-water molluscs that has any economic importance.

Insects are the group of land Invertebrata that has had the greatest number of students, and it is therefore the best known. We can mark out three regions for them, first, an arctic region in the north of Norway and on the high mountains, secondly, an eastern region in the fertile east-country districts, and lastly we have the coast region. The second of these is the richest in species, and agrees best with European insect-life in general, and may therefore be called the continental region. Like the coast flora, the coast fauna presents numerous similarities to the English. This division is of course not sharply defined. On the coast we meet with several arctic insects, whose true home in southern Norway is the high mountains. The fauna at the head of the west-country fjords often has a purely east-country character.

It is quite natural that a country like Norway, with its long coast-line, should have a large fish fauna. It is also richer in species than most of the other northern lands, more than 200 species being found in this country. Among the arctic contributions to our fish fauna may be named *Sebastes marinus*, *Anarrhichas minor*, *Molva birkelange*, *Macrurus Fabricii*, *Mallotus villosus*, which comes in the spring in huge shoals to the coasts of Finmark to spawn. The shoals are followed by cod, coal-fish, ling, whales and birds; the pouring-in of the fish gives opportunity for much fishing (the «capelan-fishing»). The Greenland shark, which is fished for the sake of its liver, both out in the open sea and in the fjords, is also an arctic fish. Still more numerous are those fishes that belong to the Northern European, or the general European fauna. Most of the food-fishes belong to these groups — cod, haddock, coal-fish, pollack, torsk, most of the flat fish, herring, sprat, bergylt, mackerel, etc. One of the most remarkable fishes is here the bas king shark, the largest fish known, sometimes attaining a length of more than 40 feet. In former times, on our west and north coasts, it was fished for regularly. Of South

European forms may be named the John dory, Tonorina and Bonito, which are more chance visitors; also the sword-fish and tunny, which appear annually in our fjords during the sprat fisheries in the summer and autumn months, and *Sebastes dactylopterus*, which is stationary in the deep west-country fjords. Among our most interesting fish are the peculiar, silvery ribbon-fishes (*Trachypterus* and *Regalecus*) and the Japanese shark (*Chlamydoselachus anguineus*), which has only been found at Vardø, Madeira, and in Japan.

The salmon is the most valuable of the fresh-water fishes, and is caught all along the coast, and in the large rivers, where it comes to spawn. Trout and red char (*Salmo alpinus*), whose habits in the north of Norway are the same as those of the salmon, are the most widely distributed of the fresh-water fish, and there are few rivers from which they are absent. The fresh waters of western Norway are very deficient in fish-species.

Of the 10 species of reptiles and Amphibia, the lizard (*Lacerta vivipara*) and the frog (*Rana platyrrhina*) are found all over the country, the viper (*Vipera berus*) has its northern limit at the polar circle, and the remainder seem to disappear at the Trondhjem Fjord.

The bird-fauna of Norway numbers about 280 species, of which 190 breed annually within the confines of the country. The large majority of these are birds of passage, such as the falcon and some other birds of prey, most of the perchers, the waders, geese and ducks. Their flight is by three ways, one southerly, following the Kristiania valley, and farther south through Sweden and Denmark; one easterly, from Finmarken through Finland, and lastly the coast route, with its last station, in Norway, on the flat Listerland and Jæderen, whence the flight is directed over the sea, partly to England, and partly to Denmark. Lister and Jæderen, where, at the time of migration, large flocks of birds often gather, are therefore for Norway what Gothland is for Sweden, and Heligoland for Central Europe. The mild climate of the south and west coasts, however, is instrumental in causing various birds, such as the starling, blackbird, woodcock, duck, swan, etc. to winter here. In the place of the migrated flocks, we are visited in the winter by several arctic or ocean birds, e. g. *Mergulus alle*, *Sula bassana*, *Fulmarus glacialis*, *Larus leucopterus*, *Somateria spectabilis*, *S. stelleri*, etc.

Along our west and north coasts, there are numerous colonies of swimming birds, gulls, terns, guillemots, razorbills, puffins, kittiwakes, cormorants and eider ducks. The farther north we go, the more numerous become the colonies, and in the north of Norway whole cliffs are covered with them, and whole islands are occupied by their nesting-places, bringing no small profit to their owners. The most notable of these cliffs are at Lovunden in Helgeland, inhabited by puffins, and at Sværholtklubben, inhabited by kittiwakes. Other characteristic coast birds are the sheldrake, the goosander, the heron, the lapwing, the curlew, the oyster-catcher, the shore pipit, the sea-eagle, etc.

The bird fauna of the lowlands, which is most abundant in the valleys of the east country, is similar to that of Europe in general. That of the mountains, on the other hand, is more characteristic. We here find several species that are seldom found south of Norway, such as the Lapland bunting (*Plectrophanes laponica*), whose most southerly abode is on the Dovre Mountains, and the snow bunting (*Plectrophanes nivalis*). On the mountains we also meet with the alpine ptarmigan (*Lagopus mutus*), and the snowy owl (*Nyctea scandiaca*), whose principal food is the lemming. In the so-called lemming-years, this species appears in great numbers, and follows the lemming in its migration towards the lowlands. We have, moreover, the rough-legged buzzard (*Archibuteo lagopus*), and some other birds of prey. By the lakes broods the black duck (*Oidemia*), and on the marshes we find the dotterel (*Eudromias morinellus*), the golden plover (*Charadrius pluvialis*), the ruff (*Machetes pugnax*), etc. The favourite haunts of most of our waders, are in the northern parts of the country. When we descend to the sub-alpine region, birds are more abundant. Here is the haunt of Norway's most valuable game-bird, the willow-grouse (*Lagopus albus*). Here too we meet with the wood-cock (*Scolopax rusticola*) and the snipe (*Gallinago major*). The willow-grouse is the commonest of all the gallinaceous birds, but black grouse (*Tetrao tetrix*) is the most widely distributed, being found both in the pine forests of the east, and in the barren islands of the west. The capercaillie, on the other hand, has a more limited distribution, being found especially in the pine forests of the east and north, more rarely in the west. This may also be said of the hazel grouse, whose home is the spruce-woods; for it is altogether absent from the west country.

There are 67 mammals within the confines of the country, among them being 8 species of bat. Of these, the Scandinavian bat (*Vespertilio Nilssoni*) is found as far north as Tromsø, and the common long-eared bat (*Plecotus auritus*) up to the polar circle. The other species are only found in the southern districts. Among the insectivora are the hedgehog, which belongs especially to the country about the Kristiania Fjord. The only Norwegian species of cat is the lynx, which occurs in unfrequented and mountainous forests up to Vefsen. A great enemy of the reindeer is the glutton (*Gulo luscus*), which inhabits the same tracts as the reindeer, namely, the mountains of the north. The reindeer's worst enemy, however, is the wolf. In former times, wolves were very numerous in the country, but about 1850 they suddenly disappeared, probably owing to disease, from a great part of southern Norway. It was only at Røros that a stock was left, and from this there have been emigrations from time to time. On the other hand, wolves have never been absent from the north of Norway, and especially Finmarken. The number, however, has varied here too.

The commonest beast of prey is the common fox and its relative the arctic fox (*Canis lagopus*); whose home is in the mountains, and which only finds its way into the lowlands in the so-called lemming-years. Bears were formerly numerous, but, like several other beasts of prey, are gradually disappearing. In some districts, indeed, they are altogether exterminated. They are most numerous now along the frontier from Trondhjem up to Tromsø, in Telemarken, and in the more inland fjord-districts of the west.

The common seal (*Phoca vitulina*) is the most general of its kind in Norway. Next comes the gray seal (*Halichærus grypus*), which has a large breeding-place on the Fro Islands. In former times, the hunting of this seal formed a profitable occupation. All the arctic seals, and even the walrus, occasionally make their appearance on our north coast. Of these, however, only the harp seal (*Phoca granlandica*) possesses any interest, as it has appeared in recent years, in large flocks in the Varanger Fjord, at the time of the codfisheries in April and May. Its arrival is much dreaded by the fishermen, who declare that it destroys the fish.

One of the most remarkable animals in the country is the lemming (*Myodes lemmus*), which inhabits the mountain wastes. In the north, however, it is found as far down as to the sea. In

ordinary years, even in its home, very little is to be seen of it; but in certain years there is a very large production, so that the mountains become over-populated, whereupon the great body of lemmings set out to find more favourable conditions of life. During their wanderings, they fall a prey to numerous enemies or to disease, and none of them return to the mountains. In years of unusually large migration, they sometimes overrun the lowlands, and do a considerable amount of damage to the crops.

The beaver was formerly found over the whole country, but is now confined to the Kristiansand diocese. The number may be computed at about 100 animals. The largest stock of beavers is found in the Nisser River.

The hare of Norway is the mountain hare (*Lepus timidus*), which turns white in the winter. It is found all over the country. In Jæderen and Lister, there is a variety that only turns partially white in the winter, thus being less conspicuous against the bare ground in these districts.

The ruminants are represented by only 3 species, the red deer, the elk and the reindeer. The red deer is a true coast animal, found along the west coast from Ryfylke up to Namdal. The number of this animal is computed at about 1200 animals, half of which are found on Hitteren. Compared with the red deer of Central Europe, the Norwegian one is not very large, nor has it such large antlers, 12 points being rare with us. The elk, the largest land mammal in Europe, has its home in the large pine forests in the east, and northwards as far as Vefsen. Their number, which has been on the decrease of late years, is computed at about 4000. In Namdalen, which is just now one of the best elk districts, animals with 28 points have been shot. The wild reindeer has two fields of distribution, the mountains of the south, and west Finmarken. It is seriously on the decrease, owing to indiscriminate hunting. Tame reindeer are kept especially in Finmarken and Tromsø, but in the south, too, herds of tame reindeer are becoming more numerous, as it is the best manner of utilising the great mountain wastes that lie too high for general pasture.

On the coasts of Norway large numbers of dolphins (*Delphinus acutus* and *albirostris*) are often caught, as well as pilot whales (*Globicephalus melas*) and grampuses (*Orca gladiator*), those robbers of the sea, that are more rapacious than sharks. Occasionally the porpoise (*Phocæna communis*) is shot. In Finmarken,

large whaling establishments are set up for hunting the rorquals that appear off the coast in the summer, — the humpback (*Megaptera boops*), the ibbalds rorqual (*Balænoptera sibbaldii*), the Sibbald's Rudolphi's rorqual (*B. borealis*) and the common rorqual (*B. musculus*). The last-named is a regular visitor to our south and west coasts during the great herring-fisheries in the winter. In former times the rightwhale of the Atlantic, the nord-caper (*Eubalæna biscayensis*), was hunted off Finmarken. The smallest of the fin-backed whales, the lesser rorqual (*Balænoptera rostrata*), is the object of a strange chase with bow and arrows, on the coast at Bergen, a method of hunting, whose employment dates from at least the 10th century.

In most towns, and also in several of the rural districts, societies have been formed for the protection of animals. The oldest of these is in Kristiania, and was founded in 1859. The societies seek to forward their object by articles in the daily papers, and pamphlets. It is especially desired to awaken young people's interest in, and love for animals. In addition to this work, the societies see that ill-treatment of animals is denounced and punished. Some of the larger societies distribute prizes for the specially careful treatment of domestic animals. Besides these societies, there are several «May Societies», whose special aim it is to protect our little summer visitors, the insectivorous birds.

BIBLIOGRAPHY.

- O. F. MÜLLER, *Zoologia Danica*. Copenhagen 1781.
 M. SARS, D. C. DANIELSSEN & J. KOREN, *Fauna littoralis Norvegiæ*. Kristiania 1846—77.
Den norske Nordhavsexpedition. Kristiania 1880 ff.
 M. SARS, *Oversigt over Norges Echinodermes*. Kristiania 1861.
 G. O. SARS, *Bidrag til kundskaben om Norges arktiske fauna. I. Mollusca regionis arcticæ Norvegiæ*. Kristiania 1878.
 G. O. SARS, *An account of the Crustacea of Norway*. Kristiania 1895 ff.
 JOHAN KLER, *Oversigt over Norges Ascidiæ simplices*. Kristiania 1893.
 OLAF BIDENKAP, *Systematisk oversigt over Norges Annulata Polychæta*. Kristiania 1894.
 J. H. S. SIEBKE, *Enumeratio insectorum Norvegorum*. Kristiania 1874—80.
 R. COLLETT, *Oversigt over Norges Araneider*. Kristiania 1875—76, and several works on the vertebrates.

ANTHROPOLOGY

BY far the greater part of the population of Norway belongs to the Germanic race, *Northmen* in the proper sense of the word. In addition to these, there is a small proportion of Finno-Ugrian origin — *Lapps* (1 %) and *Finns* ($\frac{1}{2}$ %).

The first comprehensive anthropological investigation of *Norwegians* — as of several other nations — was made during the American civil war. The following measurements for the troops of the Northern States are given according to BAXTER:

Nationality	Number	Height cm.	Breadth of Chest cm.
American	365,870	171.9	84.9
Norwegian	2,290	171.4	87.2
Swedish	1,190	169.9	87.2
Scotch	3,476	170.3	85.9
Irish	50,537	169.5	85.8
English	16,186	169.1	84.8
German	34,996	169.0	86.1
French	3,243	168.3	85.8

The Norwegians prove to be the tallest of all Europeans, but come after the Americans (and Indians). In breadth of chest they are excelled by none.

We find information on the subject of other anthropological characteristics in GOULD. All Scandinavians are classed together, but the difference between them is not very considerable, and more than half of those examined were Norwegians. The figures may

perhaps be arranged synoptically in the following manner, where *dark* types are given, in proportion to *light*, letting *light* = 10.

Nationality	Number	Eyes	Hair	Complexion	Dark : Fair
Scandinavian	(6,782)	2 : 10	2 : 10	2 : 10	2 : 10
German	(89,021)	4 : 10	4 : 10	4 : 10	4 : 10
Scotch	7,313	4 : 10	5 : 10	4 : 10	4 : 10
English	30,037	4 : 10	5 : 10	4 : 10	4 : 10
Irish	83,128	3 : 10	6 : 10	5 : 10	5 : 10
North American	544,000	5 : 10	7 : 10	4 : 10	5 : 10
French	6,809	9 : 10	9 : 10	12 : 10	10 : 10
South European	897	14 : 10	31 : 10	36 : 10	27 : 10

Scandinavians, and with them Norwegians, are thus characterised on the whole, as the fairest among the so-called white races, just as we have seen that they are the tallest (after the Americans) and the broadest.

For the last 21 years, it has been possible to find anthropological data in our own recruiting statistics, which, however, do not include the three most northern provinces. The results for the last few periods of five years may be summed up as follows:

	1878—82	1883—87	1888—92	1893—97
Height (average of battalions)	168.8 cm.	169.1 cm.	169.6 cm.	170.1 cm.
Less than 158 cm.	1.9 %	1.9 %	1.4 %	1.3 %
Fit for service (line)	52.0 %	58.0 %	65.0 %	66.0 %
Of weak frame	8.7 %	6.0 %	3.3 %	2.3 %

These figures show a constant and rapid improvement in the physical development of Norwegians during this period. The height has not yet indeed reached that of the Norwegian volunteers in America in the sixties, but the latter were, on an average, older, and growth after 22 years of age is without doubt considerable (in a battalion observed to be about 3 cm. from 22 to 25). Full-grown Norwegians are now, on an average, scarcely less than 172 cm. (5 ft. 7½ in.), and the Americans' former maximum among the white races is probably reached. The Norwegians in the most northerly provinces are above the average.

It has been thought that the extraordinarily large amount of emigration during these 20 years would lower the physical efficiency of the nation. Recruiting statistics show, however, that the reverse is the case, and that in years of great emigration in the districts, there is a better quality in those left behind (a greater percentage of able-bodied men, fewer men incapable of all military service, fewer with narrow chest or with weak frame).

The Norwegians are no more an unmixed race in an anthropological sense than any other European nation. C. O. ARBO'S comprehensive investigations have shown that a distinction must be made between two pronounced anthropological types. There is a type which possesses in a marked degree those very qualities already mentioned, which characterise Norwegians as a whole, namely, great height and fairness (white skin, fair hair and blue eyes). It proves to be further marked by the form of its skull. It is a dolichocephalic (cephalic index about 75, of living persons about 77), with narrow, straight forehead, strongly-marked superciliary arch, flat lateral surfaces, and a somewhat projecting occiput, and powerful muscular attachments. The face is long, the nose narrow and prominent. The occurrence elsewhere of these characteristic features shows that this is the true Germanic, or rather *Aryan type*.

By the side of this type, we find, however, another — the brachycephalic type (cephalic index about 83, of living persons about 84), with a more rounded forehead, and less pointed occiput, a shorter face and a broader nose on a flatter base. This type seems originally to have been dark-complexioned, as a yellowish complexion, dark hair and brown eyes, are far more general than among the dolichocephali. Height only medium. The type is certainly closely related to the Central European brachycephali in South Germany, France, etc., the Alpine type.

Between these two anthropological types, a very extensive crossing has of course taken place. ARBO'S investigations, however, show that there are many districts in the country where the long-skulled type appears in a tolerably pure form, and with marked mental characteristics, and others where the short skulls, with their peculiar mental habit, are the prevailing. The latter is especially the case along the coast as far as it has been examined, and in a few of the forest districts inland. One specially strong centre of the short skulls is in the Stavanger province, where they perhaps amount to $\frac{3}{4}$. Even there, however, the Aryan element in the

crossing has had so strong an influence on the population, that it can only be characterised as fair with gray eyes; and the stature, especially on the coast farther north (Møre), is very considerable.

On the whole, the Norwegians principally bear the impress of the fair long-skulled Aryan type, which must be supposed to have taken a comparatively larger share in the composition of the people than in other countries, perhaps three fourths.

The *Lapps*, who are generally called Finns in Norway, are a brachycephalic race, which, however, is very clearly distinguished anthropologically from the short-skulled type found among the true Norwegians. The cranium is lower, more rounded, and with weak muscular attachments. Cephalic index about 85, in life 88 (according to MANTEGAZZA and SOMMIER). The face is very broad across the cheek-bones, but tapers off to a weak chin. The nose is flat, with a broad base, and the mouth is large. The skin, except in children, is rather dark. The hair is generally chestnut brown, but quite as often fair as dark. The growth of hair on the face is weak, generally confined to the upper lip and a little on the chin. The eyes are quite as often light as dark, are deep-set, sometimes obliquely placed under heavy, often inflamed eyelids.

Their stature is very small, perhaps not averaging more than 5 feet in men of pure Lapp race. Mantegazza and Sommier found among 58 men a height of 152 cm., among 22 women, 145 cm. It is true that the average height of 112 «Finns», who were examined the year after the introduction of compulsory enlistment in the three northern provinces, was 162.5 cm.; but many of these cannot have been of pure Lapp blood; and the very way in which the heights appear to be distributed indicates a Finnish type with a height of 157 cm., and perhaps this number, too, increased by crossing. Even if these recruiting measurements only gave 23 % below the standard, it would be reasonable to suppose that the typical mean height of the true Lapps is quite below the minimum for Norwegian recruits, viz. 158 cm. The frame, moreover, is slender, with round chest, and slight muscular development. They are generally bow-legged, with short, broad feet and a waddling gait.

How far, too, the fairness is due to the long-continued crossing with Scandinavians, it is difficult to determine; but the shorter-skulled half of Mantegazza's Lapps were, if anything, fairer than the less short-skulled. In any case, however, the Lapps form a

very distinct race, having their nearest relatives among the Mongolian tribes. Their language is nearly allied to that of the Finlanders, more distantly to the other «Finno-Ugrian» or «Ural-Altai» languages.

There is now no longer any reason for upholding the old doctrine that the Lapps originally peopled the whole of Scandinavia. They probably came to Norway later than either of the two types that are found among the Norwegians proper. They must have come from the east by a northern route, as a hunting and fishing people with the culture of the stone age. A special type of stone implements has been referred specially to them — «the arctic stone age» — and these implements must have been in use among them much longer than among the Scandinavians. The reindeer, upon which the true nomadic Lapps are so dependent for their subsistence, they possibly first learnt the full use of from the Scandinavians. A thousand years ago, however, they were found as fishers at the head of the fjords, or wandering as nomads among the mountains in very much the same districts as now, hardly south of Jemtland. It is only recently that they have advanced in any numbers worth mentioning, along the mountain ridge, south of 64°.

During the last few centuries, the Lapps in Finmarken have multiplied more than the Norwegians, — from about 4000 in 1567 to 9000 in 1891. Since 1825, however, the number of Norwegians has increased so enormously, that the Lapps do not now amount to more than 40 % of the population of Finmarken. In the Tromsø and Nordland provinces, they are also *relatively* retrograding; but the race cannot be said to be dying out, when, throughout the country, it has increased from about 7000 in 1724 to 13,000 in 1845, and 21,000 in 1891. Barely $\frac{1}{10}$ of these are now true nomadic Lapps; most of them live as fishermen in the two most northerly provinces. In the two inland districts of Finmarken, Karasjok and Kautokeino, 95 % of the population are Lapps.

Norway has received other immigrants from the east, belonging to the Finno-Ugrian race. There is no trace in the population of the present day, of an immigration of *Permians* from Northern Russia to Malangen in the Tromsø province, in the 13th century. The immigration from *Finland*, about the year 1600, to the extensive border-forests east of the Glommen, was of more significance. It is true that most of these Finns settled in clearings on the

Swedish side; but not a few came right into Norway, some even as far west as Liers Finmark (north of Drammen). In spite of their lonely dwellings in the great Finn forests, these Finns are now almost completely assimilated with the Norwegians. In Solør (north of Kongsvinger), however, in 1891, 855 were still reckoned as Finns, in Grue alone, $\frac{1}{4}$ of the population; but there are not many more than 100 who really talk Finnish. Anthropologically, however, the Finnish element can still be distinctly traced.

But the most important immigration from Finland has taken place recently, to the two most northerly provinces. These Finns are called in Norway «*kvæner*», from the ancient name of the people living round Bottenviken. During the great Scandinavian War, 1700—1720, many immigrated; but it was not until about the middle of this century that the number became considerable, almost quadrupling itself in the Tromsø and Finmarken provinces between 1845 and 1875, having increased to 10,000. Of late years, however, the immigration has almost ceased, and the increase of Finns from 1875 to 1891 has only amounted to 5 %, as against 12 % of the Lapps and 21 % of the whole population. But the Finns and Lapps together still make up more than half of the population of Finmarken (23 and 32 % respectively), and $\frac{1}{3}$ of the Tromsø province (6 and 14 %).

Anthropologically, the *Kvæns* occupy in most points an intermediate position between Norwegians and Lapps. In every-day life, too, they occupy a kind of mediatory position between the two so different nationalities. Marriages are more frequently contracted between *Kvæns* and members of one of the other races, than between the two latter; and the social distance, and difference in mode of living are distinctly equalised in districts where *Kvæns* are found in any number.

BIBLIOGRAPHY.

Recruiting-Statistics of the Norwegian Army. 1878—1898.

C. O. ARBO. *Carte de l'indice céphalique de Norvège. Revue d'anthropologie. 1887. T. II.*

Fortsatte Bidrag til Nordmændenes physiske Anthropologi. I—V.

Kristiania. 1891—99.

J. BARTH. *Norronaskaller. Kristiania. 1896.*

ANDR. M. HANSEN. *Menneskeslægtens ælde. Kristiania. 1899.*

G. RETZIUS. *Finska kranier. Stockholm. 1878.*

P. MANTEGAZZA and S. SOMMIER. *Studi sui Lapponi. Florence. 1880.*

POPULATION

THE present section treats of the population of Norway, considered from a statistical point of view. The subject is divided into the following five heads:

- I. The size of the population.
- II. The geographical distribution of the population.
- III. The composition of the population.
- IV. The growth of the population.
- V. The movement of the population.

The population of our country presents to the investigator several peculiarities, most of which, however, are common to our kinsmen, the Swedes and the Danes, of whom the first especially are very closely allied to us in several ways. This similarity finds its explanation, not only in the relationship, but also in the outward circumstances in which the population lives, — the climate, conditions of trade, etc., which, especially in the two nations inhabiting the Scandinavian peninsula, are in many respects identical.

I. SIZE OF THE POPULATION.

Particulars as to the population of Norway in olden times are few and uncertain. Towards the middle of the 14th century, the land is supposed to have had 300,000 inhabitants; but during the years 1349 and 1350, this number underwent a sudden and great reduction. In the autumn of 1349, the infection of a ravaging pestilence was brought over to Norway in an English trading vessel; the disease gained a footing, and carried away in a short

space of time, at least $\frac{1}{3}$ of the population. Our ancient legends have much to relate about this terrible calamity, which entirely laid waste large tracts of the country. Not until the beginning of the 16th century is the population supposed to have again attained the size it had before the «black death» ravaged the country; and a little beyond the middle of the 17th century the country seems to have had about 450,000 inhabitants, this number increasing by the end of the century, to about half a million.

Our first general census, including women as well as men, dates from the year 1769. This gave a total of circ. 727,600 inhabitants. The next census was on the 1st Feb. 1801, and showed the population of the country to be 883,038 domiciled inhabitants, and on the 30th April 1815, according to the third census, there were 885,431 inhabitants, a figure which, however, must have been too low, as very reliable calculations that have been made, give a result of 902,700 on the 31st Dec. 1814.

Since that time, a general census has been taken in Norway every 10 years, in 1825, 1835, 1845, etc., except in 1885, when the census which should have been taken then was put off for 5 years, in order to coincide with the census-year of several other countries.

The next census is to be taken on the 1st Jan. 1901. The time for the census, since 1845, has always been fixed for the beginning of the year.

With each of these censuses — which, owing to the scattered population and the difficulty of communication in former times, have cost much labour and money — more and more detailed information has been obtained concerning the sex of the persons numbered, their age, station in life, etc. These specifications are for the most part worked out and published in the official statistics of Norway, and afford good and abundant material for the study of the demography of our country.

The censuses taken during the present century have given the following results:

Aug. 15, 1769	727,600 inhabitants
Feb. 1, 1801	883,038 »
April 30, 1815	885,431 »
Nov. 27, 1825	1,051,318 »
Nov. 29, 1835	1,194,827 »
Dec. 31, 1845	1,328,471 »
Dec. 31, 1855	1,490,047 »

Dec. 31, 1865	1,701,756 inhabitants
Dec. 31, 1875	1,813,424 »
Jan. 1, 1891	2,000,917 »

These figures refer to the domiciled population of Norway, and are calculated from the specifications gathered in the domiciles of the enumerated persons. When we add to these the number of Norwegians that were abroad at the time of the census, and subtract those persons temporarily in Norway, but with their homes abroad, the population rises in 1891 to 2,004,102. The domiciled population on the 1st Jan. 1897, is calculated to have been about 2,110,000 persons.

The position our country occupies as a sea-faring country *par excellence*, involves the necessity of a comparatively large number of seamen being constantly outside the boundaries of the country. The difference between the actual and the legal population becomes thereby comparatively considerable. The former amounted, in 1891, to 1,988,674 persons, thus 15,428 less than the latter, of whom 14,945 were seamen, some with wives, children, etc. Moreover, 3,429 other Norwegians were abroad on the census day, while on the other hand, 2,946 of the persons in Norway had their homes abroad.

The population of the kingdom present on the 1st Jan. 1897, was calculated to be about 2,095,000 persons.

II. GEOGRAPHICAL DISTRIBUTION OF THE POPULATION.

While Norway occupies rather more than 3 % of the total area of Europe, her population amounts to only $\frac{1}{2}$ % of the population of the continent. It follows from this that the denseness of the population of the country is considerably less than the European average, and Norway is actually the most thinly populated of the European kingdoms.

The area of Norway is 124,495 sq. miles, of which 4,955 sq. miles are occupied by lakes, etc. Leaving these out of consideration, there were, in 1891, about 16.80 inhabitants to the sq. mile, while the proportion when the whole area is taken into account, would be about 16. The corresponding figure for Finland was 16.50, and for Sweden 27.70 inhabitants per sq. mile. In Denmark, on the other hand, in 1890, there were 147.60, and in Bel-

gium as many as 533.50 to the sq. mile. For the whole of Europe, the proportion is calculated to be about 98 inhabitants to the sq. mile.

As in thinly populated countries generally, the denseness of the population in Norway is very different in the several districts. Of the legal divisions (*amt*), not including those of Kristiania and Bergen, Jarlsberg-Larvik is the most thickly populated, there being on an average 116 inhabitants to the sq. mile. Even this, however, is considerably below the mean for Denmark. Next comes Smaalenene with 80.20, and Akershus with about 51. These three divisions lie round the Kristiania Fjord, which thus forms the most thickly populated district in the country. If Kristiania be included in Akershus, which surrounds it on all sides, the denseness of the latter's population becomes about 121 per sq. mile, or rather more than in Jarlsberg-Larvik. On the other hand, the thinnest population is to be found in Finmarken, where there are only 1.50 persons to the sq. mile, or not quite so many as in Iceland, where the corresponding ratio is 1.80. On the west coast, the Stavanger division is the most thickly populated, with a ratio of 34.90. The two large eastern inland divisions, Hedemarken and Kristian's amt, on the contrary, have a population of only about 11.60 inhabitants to the sq. mile.

These ratios, however, give only an approximately correct idea of the way in which the population is scattered over the country. It may, indeed, show that human habitations are distributed unevenly, but it does not show how men have selected their dwelling-places according to the geographical nature of the land, and the natural productiveness and fitness of the various districts to afford them a subsistence. In this respect the state of affairs is very different in Norway from what it is in most other countries, because those tracts of land which are at all habitable by human beings, are not only disproportionately small, but also, on account of the peculiar formation of the country, more scattered over its surface. Rather more than $\frac{3}{4}$ of Norway's area is not only uncultivated, but totally incapable of being cultivated; and of the remainder about $\frac{4}{5}$ is occupied by forest, so that the amount of cultivated land is only between 3 and 4 per cent of the total area of the country. For purposes of comparison it may be mentioned that the amount of cultivated land in Denmark is about 76 % of its total area, in France about 70 %, and in Europe as a whole, more than 40 %.

With regard to the density of the population, it will be advisable to distinguish between Northern Norway, comprising the Tromsø diocese, and Southern Norway, under which the five southern dioceses may be classed. The former extends generally as a narrow coast region through 6 degrees of latitude, with a rugged shore, dotted with innumerable islands, and is generally only about a fourth part so thickly populated as the remainder of the country. The greater part of the population has gathered along the coast and upon the islands, of which a few in the Lofoten group, which are the scene of the great annual cod-fisheries, are comparatively thickly populated. A few coast districts, too, on Helgeland, have a relatively large population. On the other hand, throughout Northern Norway, the inland districts are for the most part uninhabited.

South of the Trondhjem Fjord, the country increases considerably in width, the coast-line sloping very much westwards as far as Stad, south of which, the country between about 62° and 59° maintains the same width, and then tapers off to the south. Almost the whole of this space is filled by mountains, which descend precipitously to the sea towards the west, and afford only scant room for building along the coast, on the islands fringing it, and along the fjords. Towards the south and south-east the incline is more gentle, and the mountain masses are broken up by several narrow, but long valleys, traversed by rivers, and affording a narrow space for the building of habitations. In the south-eastern part of the country, about the Kristiania Fjord, the country has a flatter character, and the rivers coming from the N and NW, form lakes of varying sizes in their course, in the vicinity of which the land is cultivated and to some extent quite thickly populated. South of Trondhjem, Norway is represented on a population-chart as a large blank surface with a more or less narrow margin of inhabited country along the coast, interrupted in several places by stretches of altogether uninhabited country; and south of the Dovre Mountains, running chiefly in a south-south-easterly direction, and north of those mountains, running in a northerly direction, are inhabited clefts in the mountain masses. The boundaries between the inland thinly-peopled-district, and the outer, better populated coast region, cannot of course be drawn with perfect precision, but are yet generally quite distinct.

The districts on the east and south sides of the Trondhjem Fjord are among the most thickly populated in the country. Here

lies Trondhjem on ancient, classic soil. South of this fjord, the strip of population tapers off along the coast, but in Sogn pushes far inland. South of the Sogne Fjord, the line of habitation again becomes broader along the coast about Bergen, Haugesund and Stavanger, and several of the islands outside are quite thickly inhabited. In the Lister-Mandal division there comes another broader belt of inhabited country, which, however, diminishes again in width at Arendal, but then once more becomes broader, and, with a few off-shoots upwards — large valleys — merges into the well-populated districts around and north of the Kristiania Fjord. This inhabited country continues in an almost unbroken line through Østerdalen and Guldalen to Trøndelagen, through Gudbrandsdalen and Raumadalen to the Romsdal division, and through Valdres to the country round the head of the Sogne Fjord.

About two thirds of the entire population of the country live upon the coast and up the fjords, about a fourth part in the interior lowland districts, while the remainder, about 10 % of the population, belong to the mountain districts. The dwellings in the latter extend to a considerable height above the sea, the height in some places being more than 3000 feet for farms for winter habitation.

We will now proceed to consider the distribution of the population from another point of view, namely, its division into country and town population.

In 1891, the population of the Norwegian towns amounted to 474,129 persons or 23.70 per cent of the whole population, while the remaining 76.30 per cent fell to the rural districts. The growth of the town population in Norway belongs principally to the present century. In 1801, the towns did not amount to quite 10 % of the population of the kingdom, and not until about 1880 was 20 % exceeded; but at the close of 1896, they amounted to about 26 %. Sweden, and still more Finland, have a relatively less numerous town population than Norway; Denmark on the contrary, a very much more numerous one. The average for Europe may be put at 33 %. In England, in 1891, between $\frac{2}{3}$ and $\frac{3}{4}$ of the population lived in the towns. Comparison, however, is difficult, as the idea expressed by the word «town» is very vague. In Norway, the limit is legal, in several other countries only conventional, every collection of people, that is above a certain size, being reckoned as a town.

There are now 61 towns in Norway, as against 42 in the year 1801. They are nearly all small. In 1891 there were 42 with less than 5000 inhabitants, 9 from 5000 to 10,000, 5 from 10,000 to 20,000, 3 from 20,000 to 50,000, and 2 above 50,000. The growth of late years has chiefly gone on within the same groups, whose relative size is thus still almost unaltered. The three largest towns are Kristiania, which, on the 1st Jan. 1899, numbered 221,255 inhabitants, Bergen with 68,000 in 1899, and Trondhjem with 33,033 on the 1st Jan. 1897.

The population of Kristiania and Bergen together, amounts to about half the town population of the country, which, according to the calculation of the 1st Jan. 1897, amounted to 550,000, but has since grown a little.

With a few, comparatively slight, exceptions, the Norwegian towns lie along the coast, the tract from Fredrikshald to Kristiansand being thickly studded with large and small towns. The largest inland towns are the mining town of Kongsberg with about 5500, and Hamar with about 5000 inhabitants. Outside the towns, the buildings are as a rule scattered, as the Norwegian rural population does not live, as in several other lands, in villages, but in solitary farms, with their cultivated land round them. Upon the coast, however, the fishing population has formed village-like groups of houses in several places, and these villages have also sprung up in a few inland places, where industrial undertakings have occasioned any considerable concentration, e. g. Lillestrømmen and Røros.

III. COMPOSITION OF THE POPULATION.

At the last census, there were enumerated in all 443,317 separate households, 385,220 of which were true family households, while the corresponding figures in 1876 were respectively 389,611 and 341,806. The average number of persons in each family household in 1891, was 5.01, reckoned from the domiciled population, and 5.15 in 1876.

Besides the family households, in 1891 there were 623 other households (poor-houses, infirmaries, houses of correction, etc.), and 57,474 solitary persons, of whom 27,275 were men, and 30,199 women, or respectively 2.82 and 2.92 per cent of the total population of each sex. If all the households are taken together, and the actual population at the time is used as a basis for the calculation,

there were 4.55 persons in each household in Norway in 1891. The corresponding figure for England and Wales was 4.73, for Germany 4.66 and for Sweden 3.80.

The average number of inhabitants to each dwellinghouse amounted in 1891 to 6.50 for the whole kingdom, and for the country districts and the towns separately, 5.78 and 11.85 respectively. While the density of our population has risen in several of our towns, in consequence of the increasing taste for a barrack-like manner of building, the country districts in this respect exhibit a contrary tendency. The number of inhabitants per house was greatest in Kristiania, viz. 22.90 (as against 21.90 in 1876), while the next largest Norwegian town, Bergen, had only 13.10 (11.70 in 1876), and Trondhjem 11.90 (12.20 in 1876). In the country districts, the difference between the various parts is comparatively small.

DISTRIBUTION ACCORDING TO SEX.

If we compare the distribution of the Norwegian population according to sex, with the corresponding conditions in other countries, we find that there is a greater preponderance of the female sex in our land than in most of the European countries, and also that of late years, this preponderance has been on the increase. In the year 1891, the Norwegian women numbered 1,035,006, as against 965,911 men, or an excess of 69,095 women; while in 1876, it only amounted to 42,688. In 1891, there were 1072 women to a thousand men, as against 1048 in 1876. If the proportion at an earlier date be investigated, it will be found that according to the census of 1801, the excess of women was 8.90 per cent, but that owing to a diminished death-rate, it fell to an average of 4 % during the years 1835—1870. Since that time, emigration has once more considerably increased the relative number of women.

The average proportion of strength between the two sexes for Europe in the beginning of the nineties is calculated at about 1021, while the other continents, in so far as particulars are forthcoming, all exhibit an excess of the male sex. In Sweden, in 1894, the proportion was 1061, in Denmark, in 1893, 1053. Among the countries of Europe, only Portugal has a larger excess of women than Norway, namely, 1084 women to every 1000 men.

There is, moreover, considerable difference in the proportion between the rural districts — which in 1891 had an average of 1058 women to every 1000 men —, and the towns, where the sexes

are divided in the proportion of 1206 women to 1000 men. The large excess of women in the towns is due in a great measure to the influx of domestic servants.

When the population is classified in age-groups of 10 years, it appears that the male sex — in consequence of the more frequent birth of boys than of girls — now, as hitherto, preponderates in the first two groups of 10 years, or, speaking more accurately, in 1891, up to and including the 18th year. On the other hand, the preponderance of the female sex is greatest in the highest age-classes.

The comparatively large preponderance in our country of women, which, viewed from the side of political economy, must be regarded as a weakness, is explained by the higher rate of mortality among the male sex generally, and especially during the ages from 10 to 30. This again, among other things, is due to the prominent position that our nation occupies as a sea-faring nation; moreover, the emigration that has been going on for the last 50 years, and in which the male sex has greatly preponderated, has contributed largely to disturb the natural conditions.

DISTRIBUTION ACCORDING TO AGE.

The age-classification of the native Norwegian population at the census of 1891 was as follows:

Age	Actual Figures			Percentage		
	Men	Women	Total	Men	Women	Total
0— 10	252,997	242,761	495,758	12.62	12.11	24.73
10— 20	203,142	199,949	403,091	10.17	9.98	20.15
20— 30	131,743	158,884	290,627	6.57	7.93	14.50
30— 40	110,966	130,972	241,938	5.54	6.53	12.07
40— 50	90,089	102,579	192,668	4.49	5.12	9.61
50— 60	73,229	81,419	154,648	3.65	4.06	7.71
60— 70	62,932	70,322	133,254	3.14	3.51	6.65
70— 80	31,922	37,851	69,773	1.59	1.89	3.48
80— 90	7,721	10,804	18,525	0.38	0.54	0.92
90—100	711	1,193	1,904	0.03	0.06	0.09
100—104	3	13	16	—	—	—
Not stated	1,111	789	1,900	0.05	0.04	0.09
Total	966,566	1,037,536	2,004,102	48.23	51.77	100.00

If the population be divided into the three age-groups that most nearly correspond with successive generations, and the result

per cent be compared with the corresponding proportion during the years 1801 and 1845, the following table is produced:

	Under 30	From 30--60	Above 60	Total
1801	58.40	32.70	8.90	100.00
1845	61.60	29.80	8.60	100.00
1891	59.40	29.40	11.20	100.00

These figures show changes that are not altogether without importance in the composition of the population. It must not, however, be forgotten, that the intermediate periods are of considerable length, and that the enumerations here given show, to some extent, the outside limits of the variation during the present century. In 1845 the youngest, in 1801 the middle, and in 1891 the oldest group, was relatively more numerous than at some of the other censuses, while the years 1801, 1891 and 1845 show the minima of the groups during the same period.

The great increase in the number of old people during the same period (from 9.20 % in 1876 to 11.20 % in 1891) is of a more chance character, being accounted for by the great increase in the number of births during the first few years after 1814. Compared with other countries, the number of old people in Norway is very great, exceeded by only a few countries, e. g. Sweden and France.

If we compare the composition of the Norwegian population according to age in general, with corresponding conditions in other countries, we find that the first 20 years are represented about normally, but that the succeeding period, when the population is in its most productive and useful age, is comparatively weaker in numbers than in European countries generally. This condition is most marked in the rural districts, where the relative number of children and old people is greatest, while the number of young men and women is comparatively greatest in the towns, a circumstance which is more especially appreciable in Kristiania. This fact places the productive power of the population in a more unfavourable position than is the case in most other countries.

The total number of children under 15 years of age in 1891 was 712,435, of whom 363,164 were boys and 349,271 girls. Compared with the domiciled population as a whole, this amounted to 35.55 per cent, a proportion that to some extent corresponds with the normal, and shows a certain advance since 1876, when the proportion of children was 34.37 per cent.

DISTRIBUTION ACCORDING TO MATRIMONIAL STATE.

In 1891, those of the population who were above the age of 15, could be divided into two almost exactly equal parts, one of which — 647,288 persons, or 50.11 % — consisted of the married persons, while the remaining 49.89 % (in which are included the comparatively few unspecified) were unmarried or previously married persons. In 1876, the relative number of married persons was somewhat smaller, but at the first census of the century, showed a noticeably larger percentage.

The percentage of married persons varies considerably in different countries. The number is greatest in Hungary (in 1890 66 per cent of the population over 16 years of age); next to it comes Saxony with 56 per cent (over 15 years of age), while in Ireland, in 1891, only 39 % of the population were married. In this respect, therefore, Norway takes up an intermediate position. If, however, account be taken of the fact that in northern lands matrimony is entered upon at a comparatively later age, the number of married persons in Norway may be said to be comparatively large.

The relative number of married persons varies somewhat in the two sexes. Thus while out of 100 adult males in 1891, 53.36 were married, the corresponding proportion of women was 47.45. On the other hand, the number of widows was much greater than the number of widowers, namely 11.71 and 6.30 per cent respectively of the total number of adults of each sex above 15 years of age. Of unmarried persons, there were 40.29 men and 40.80 women in every 100 adults of each sex.

Both as regards men and women, there is some increase in the relative number of married persons since the census of 1876.

The greatest number of married men in proportion to the whole adult male population — 84.10 per cent — are in the age-group 45—50, while the maximum for the women — 72.85 per cent — belongs to the group 40—45 years of age. The reason is the greater mortality among the male sex, which, in this section of life, makes more women widows, than men widowers.

The number of unmarried women of all ages is comparatively greater in the towns than in the country, a circumstance which is principally due to the great influx of domestic servants. The same is the case with widows, of whom the towns number com-

It will be seen from this that the relative number of persons with an occupation, which in 1876 amounted to 61.10 per cent of the entire population, fell in the course of the succeeding 15 years to 59.20 per cent. This decline may be partly accounted for by the comparatively greater increase in the older age-classes during this period; and in addition to this, the working age on the whole begins rather later now than formerly. It will also be seen that the number of school-children and students has increased notably in the course of the period here under discussion. In addition to this, we may presume that the particulars in 1891 have been more accurate than those of 1876.

If we compare the sizes of the earning and the non-earning portions of the Norwegian population with the corresponding conditions in other countries, we find that in this respect our land is very unfavourably situated, the productive portion of the population here being comparatively small. This, moreover, is a consequence of what has previously been stated about the unfavourable distribution of the Norwegian population according to age. One result of the protracted physical development in cold climates is that the working-age begins later in the northern countries.

On account of the exceedingly great importance that the relative size of the productive portion of the population has for the economical development of each country, the following comparative table for Norway and a few other countries, from the German statistics of social position for 1882, is subjoined.

Out of every 100 persons in the 2 following age-groups, there was, according to the above-mentioned table, the following number of working persons:

Countries	Above 15 Years of Age			Under 15 Years of Age		
	The two Sexes	Males	Females	The two Sexes	Males	Females
<i>Norway</i>	54.00	80.40	30.40	2.10	2.00	2.20
<i>Germany</i>	63.00	92.40	35.40	3.30	4.00	2.60
<i>Scotland</i>	63.60	94.80	36.20	3.40	3.70	3.10
<i>England & Wales</i>	64.40	93.90	37.20	4.90	5.90	4.00
<i>Ireland</i>	66.50	92.30	42.70	5.60	6.80	4.50
<i>Italy</i>	70.80	90.50	51.10	21.30	24.20	18.20

As it will be seen, Norway shows all through the smallest percentage of earning persons.

We now pass on to consider by what livelihoods the population of our country chiefly seeks its maintenance, and how large a part each of the great branches of industry plays in the economy of the country. Here, too, it may be interesting to compare the results of the last two censuses. For this purpose, the following survey is subjoined of the total number of persons who were associated directly or indirectly with the various occupations and businesses, considered absolutely and relatively.

	Total Number of Persons		Percentage	
	1876	1891	1876	1891
Agriculture, cattle-farming & forest cultivation	1,052,638	975,047	58.06	48.65
Fishing	102,685	171,885	5.46	8.58
Industries & mining	352,716	461,756	19.39	23.04
Trade, transport by land, etc.	129,279	189,392	7.10	9.45
Navigation	118,679	118,729	6.53	5.92
Intellectual work	62,856	87,293	3.46	4.36
Total	1,818,853	2,004,102	100.00	100.00

Thus in 1891, almost half the Norwegian population gained a livelihood by agriculture, and about a fourth part by industries and mining, while trade and transport by land came third, fishing fourth, and shipping fifth. The first and largest group, however, exhibits a marked decline since the previous census, namely from 58.06 to 48.65 per cent. It must here be remarked, however, that the line of demarcation between agriculturists and several of the other groups, fishermen in particular, is very uncertain, as a considerable number of persons along the coast carry on both fishing and farming. It is therefore probable that a comparatively greater number of these persons have been classed as fishermen in 1891 than in 1876. This circumstance, however, does not detract from the correctness of the figures, as in any case there is a considerable falling-off in the number of persons associated with agriculture, while all the other groups, except shipping, give occupation to an increasing percentage of the inhabitants of the country.

A reliable comparison of the classification of the population of the several countries, according to occupations, is very difficult to obtain. We shall therefore here confine ourselves to the

statement that a comparatively large proportion of the population of Norway maintains itself by agriculture, fishing and trade, while the Norwegian industrial population is still comparatively small.

If the Norwegian *working* population in 1891 be classified according to their occupation and station in life, the following result is obtained:

	Persons with Independent Occupation	Private Servants, etc.	Labourers, etc.	Total
Public functionaries & the professions	6,048	16,102	4,846	26,996
Agriculture, cattle-farming, forest-cultivation	123,382	3,743	207,968	335,093
Fishing	41,394	189	16,084	57,667
Mining & smelting, etc. .	44	337	4,133	4,514
Manufacture, road-making, etc.	1,166	4,455	49,255	54,876
Handicrafts	32,722	675	42,395	75,792
Minor industries	30,763	107	14,103	44,973
Trade & money transactions	16,959	15,070	10,620	42,649
Inn & tavern-keeping . . .	3,194	359	2,716	6,269
Transport by land, railway works, post, telegraph, etc.	2,068	2,787	7,735	12,590
Shipping, piloting, harbour & lighthouse administration, flotage, etc. . . .	1,819	13,742	29,807	45,368
Domestic work	305,324	13,142	153,547	472,013
Insufficiently defined daily work	1	115	8,543	8,659
Total	564,884	70,823	551,752	1,187,459

On account of the extent and very varied physical character of our country, the various stations in life are distributed in very unequal proportions throughout the country. Thus while 69.20 per cent of the population of the whole country in Northern Bergenhus, and rather less in Kristian's and Romsdal's divisions derived their subsistence from agriculture, this was the case with only 18.30 per cent of the rural population of Finmarken, of which more than $\frac{2}{3}$ lived by fishing. In Tromsø division too, more than half of the rural population was dependent on this last occupation, which in Nordland provides 44 per cent of the country inhabitants

with means of subsistence, and is of great significance generally for all the west country divisions. Forest cultivation was especially important in Hedemarken and Bratsberg, while Smaalenene, Akershus, Buskerud and Bratsberg were the divisions in whose parishes the manufacturing industry was most advanced, judging from the relative number of persons employed in it. Handicraft showed a somewhat even distribution, but plays a rather more important part in the east country than in the west and the northernmost divisions, while Jarlsberg-Larvik, Nedenes and Lister-Mandal divisions showed the comparatively largest sea-faring population.

As regards the towns, the distribution according to station in life was quite even throughout, except as regards fishing, manufacture and shipping. As fishing towns, the towns in the three most northerly divisions were especially prominent, while factory work gave occupation to a considerable portion of the population of the towns in Smaalenene and Buskerud, and in Kristiania. On the other hand, shipping was represented with comparatively greatest strength in the towns along the coast from Jarlsberg-Larvik up to, and including, the Stavanger district.

The population of the towns and of the rural districts was of course quite differently constituted as regards domestic industries and stations in life. In the country parishes, rather more than half the number of inhabitants were associated with farming and the trades connected with it, while 16 per cent maintained themselves by various industries, 10 per cent by fishing, and rather more than 7 per cent by trade, shipping and traffic. In the towns, on the other hand, the industries, trade, etc. played the principal part, the first of these supplying about 42 per cent with a living, and trade, shipping and traffic, 35 per cent of the entire town population. The intellectual occupations were also, as might be expected, much more strongly represented in the towns than in the country.

This classification then, applies to the population in general. In addition to this, it will perhaps be interesting to note how the matter stands with regard to *women* especially. The total number of working Norwegian women in 1891 was 627,238, amounting to 27.90 per cent of the total number of inhabitants, and 52.80 per cent of the total number of working men and women together. The first-named proportion exhibits some decrease since 1876, the last, on the contrary, a certain increase (29.60 and 51.60 per cent

respectively). In 1891, 73.40 per cent of the working women were employed in domestic work. Of these, 305,267 were mistresses of households. Farming gave employment to 88,544, or about 14 per cent. In both these groups, there has been an appreciable decline in the relative number since 1876, while the other spheres of action, on the other hand, show an increasing proportion. Among these may be named minor industries (sewing, washing, ironing, etc.) which occupy 6.10 per cent of the working women, while the remaining 6.40 per cent are divided among trade and money transactions — 1.45 % —, factory work — 1.30 % —, public work and private intellectual occupation — 1.19 per cent —, handicraft — 0.69 % —, and various — 1.77 %.

DISTRIBUTION ACCORDING TO NATIONALITY.

The composition of that part of the population which is of Norwegian origin, is treated of in the article on Anthropology.

As regards other nationalities, the total number of persons born abroad, and living in Norway at the time of the last census in 1891, amounted to 47,572, or 2.39 per cent of the population. The great majority of these — 38,017 persons — were born in Sweden, 2475 in Denmark, 2661 in Finland, 1738 in Germany, 1094 in the United States, 655 in Great Britain and Ireland, 98 in France, etc.

The percentage of foreigners in Norway has risen during the last few decades. In 1865 they amounted to 1.25 per cent, and in 1876 to 2.07 per cent of the total population. In other European countries, the corresponding proportion varies very much. In Luxembourg, for instance, about the year 1890, 8.50 per cent of the population were foreigners by birth, in Spain only 0.20 per cent, and in France 3 per cent.

DISTRIBUTION ACCORDING TO RELIGIOUS BELIEF.

The great majority of the Norwegian population belong to the Protestant faith. In 1891, 30,685 of the population belonged to various dissenting communities, or were otherwise outside the established church. This number shows a great increase in the number of dissenters since 1876, when the total number was only 7180.

The most numerous class of dissenters is the Lutheran Free Church, numbering 8194 members, next to them the Methodists, 8187, and Baptists, 4228, while 1374 belonged to various communities with a methodist-baptist form. In 1891, there were only 1004 Roman Catholics, and in addition to these, a few hundred Quakers, Jews and Mormons; while 5095 were entered as belonging to no religious sect at all.

BLIND, DEAF & DUMB, ETC.

At the time of the last census, there were in all 2565 *blind* persons, of whom 1287 were men, and 1278 women. To this class are reckoned only those who cannot see to walk about. The ratio is thus 1.28 in every 1000 inhabitants. Although this proportion, compared with most other civilised countries, is rather large — Sweden has 0.83, England and Wales 0.81, Scotland 0.70 — yet it shows considerable improvement since 1845, when the relative number of blind persons in Norway was 2.07 per 1000 inhabitants. The majority belong to the higher age-classes, the number only beginning to rise rapidly at about the age of 55. Of the ages 85—95, there were 40.60 blind persons per 1000 inhabitants, of a greater age, as many as 64.60 per mille.

In 1891, the *deaf and dumb* numbered 2139 persons, 1176 males and 963 females. The ratio — 1.07 per 1000 inhabitants — as compared with that of other countries, is a more favourable one, it is true, than that of the blind, but several European countries have a much smaller figure to show, e. g. England and Wales 0.49, Scotland 0.53. Sweden has 1.11 and Austria 1.29.

In 1891, there were 1357 persons of the male sex, and 1074 of the female sex, 2431 in all, who were idiots from birth or early childhood. Of other *mentally diseased* persons, there were 5318. The total proportion of mentally diseased persons was 3.88 per mille of the population.

IV. GROWTH OF THE POPULATION.

It will be seen from the previously recorded (pp. 86 f.) results of the censuses, that the growth of the Norwegian population, as time has passed, has been rather unequal. During the period 1801—1815, the latter half of which was an unhappy and disturbed time for

our land, the population increased by only 0.17 per cent annually, while the growth during the 20 years that followed — until 1835 — was very rapid — 1.34 per cent annually. Subsequently it went down once more, and was on an average 1.18 per cent during the years 1835—1865, but only 0.65 per cent per annum from 1865 to 1890. Of late years the growth has once more increased considerably, on account of the great falling-off in the emigration from Norway. For the whole period 1801—1891 the average annual increase in the population of Norway has amounted to 0.90 per cent, while for the previous century, it has been reckoned to be about 0.58 per cent, and still farther back, between 0.30 and 0.40.

The percentage of growth has thus increased considerably during the last century. Its increase will be still more considerable, if the extraordinarily large number of persons is taken into account, who, during the latter half of the present century, have emigrated from the kingdom, and have settled and multiplied in foreign countries. The number of Norwegian-born persons who, in 1891, were settled abroad, amounted to about 350,000. To these must be added their children born abroad. At the same time, the number of the country's own inhabitants has risen since 1801 from 880,000 to more than 2,000,000. Thus the Norwegian race, in the course of the 50 years from 1840 to 1890 must have about doubled itself, which is equivalent to an annual growth of about 1.40 per cent.

But although the Norwegian race, as a whole, is strong and full of vitality, and can compare favourably in this respect with almost any other, the actual population of the country, since about 1865, has increased more slowly than in most European countries, on account of emigration; whereas, during the period 1815—1865, the circumstances were reversed. The average percentage of increase in the whole of Europe about the time 1881—1890, is reckoned at about 0.87 per cent annually of the mean population, Western Europe separately being 0.66 per cent, and Eastern Europe 1.23 per cent. The population has increased most rapidly in Servia, namely about 2.00 per cent, and in Russia, 1.35 per cent. The population in Norway increased, during about the same period, by 0.40, in Sweden by 0.48, in Denmark by 0.96 and in Finland by 1.38 per cent, while France only increased by 0.23 annually.

In Norway, as elsewhere, there is considerable difference between the increase of the population in the towns and in the country, the former growing more rapidly than the latter. This

is not due to the comparatively greater number of births in the towns, as this advantage is counterbalanced by the greater mortality, but to the influx of persons seeking employment, students, etc., to the towns. Moreover, the towns are frequently enlarged at the expense of the country, as the suburbs are incorporated in them — a circumstance, however, which here, where it is a question of the *natural* growth-percentage of the town population as compared with the rural population, cannot be taken into consideration.

In order to illustrate the increase of these two groups since 1825, a table is given below of their relative growth during the period from one census to another, the distinction between country and town that was held in 1890 being taken as the basis of the calculation.

Periods	The Kingdom	Rural Districts	Towns
1825—1835	1.29 %	1.28 %	1.28 %
1835—1845	1.06 >	0.93 >	1.99 >
1845—1855	1.15 >	0.99 >	2.22 >
1855—1865	1.34 >	1.02 >	3.11 >
1865—1875	0.64 >	0.27 >	2.29 >
1875—1890	0.66 >	0.33 >	1.86 >

Thus the influx to the towns seems to have reached its relative zenith in the period from 1855 to 1865, when the increase was very considerable, but subsequently fell off a little, partly on account of emigration to America from the towns, and partly as a consequence of less moving-in from the rural districts. Since 1890, however, migrating to the towns has taken a fresh start.

The Norwegian towns have grown during the present century at a greater rate than those of Sweden and Denmark. The frequent emigration during the early eighties, already referred to, reversed the conditions for a time; but during the nineties, the Norwegian town population, owing principally to the exceedingly rapid growth of the capital, has increased more rapidly than that of the neighbouring countries. With regard to the growth of the several larger towns, the following remarks are to be made:

Kristiania, the capital and largest town of the country, possesses a singularly favourable situation in the south-eastern corner of the country. In 1801, on its present area, the town numbered

12,423 inhabitants, while its population, on the 1st Jan. 1899, was 221,255. This gives an annual increase of 3 per cent. From 1855 to 1865, the population rose on an average 4.60 per cent, and from 1891 to 1898, 4.90 per cent per annum. On the other hand, the increase during the years 1880—1885 was only 1.70 per cent per annum.

Bergen increased slowly up to 1855 — during the years 1801—1845 only 0.60 per cent annually —, but afterwards more rapidly. In 1801, the population numbered 18,127, and in 1891, 53,684, but is now more than 68,000, which gives an annual percentage of growth for the years from 1801 to 1897 of 1.30 per cent.

Trondhjem, the largest town in northern Norway, has had a slow, but fairly even growth, namely 1.10 per cent from 1801 to 1845, and 1.20 per cent from 1845 to 1885. From the last-named year, when the town numbered 23,753 inhabitants, until 1st Jan. 1897, when the number was 33,033, partly in consequence of an incorporation of suburbs in 1893 (4097 inhabitants), the annual increase was 3 per cent.

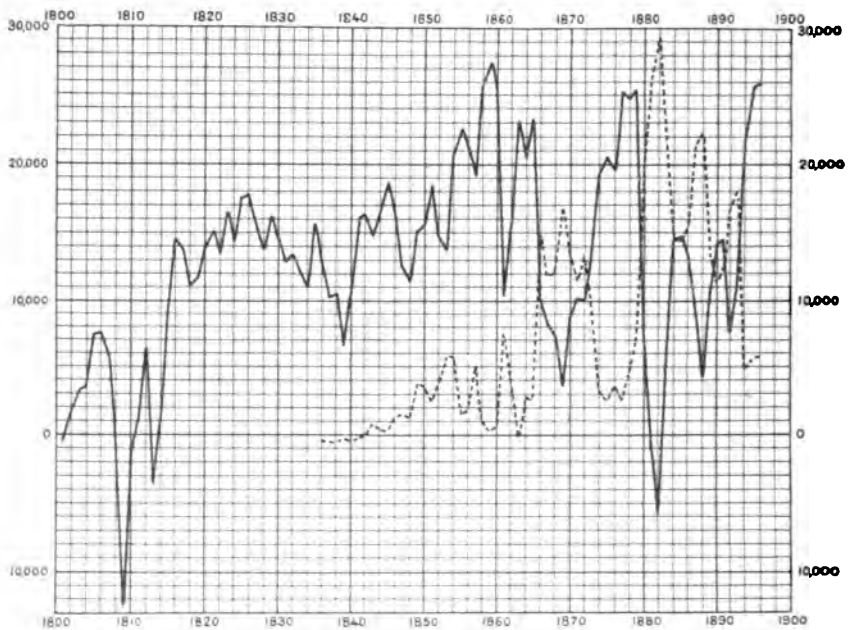
The growth of the rural population has varied considerably at different times in the various districts, in several of which, on account of the continual emigration during the last few decades, there has been an actual decrease from one census to another.

If the population be grouped according to the natural character of the inhabited districts, it will be found that during the course of the present century, the coast population shows the most rapid increase, the inland fjord districts somewhat less, while the lowland, and still more the mountain population has increased much more slowly. The emigration that has been going on of late years from the last two has even in some places caused a decrease in the actual number.

After having now discussed the question of the growth of the population in Norway under various heads, we pass on to subject the increase itself to a closer analysis. The movement of the population in a country depends, as we know, not only on the number of births and deaths, but also on immigration and emigration. If we leave migration out of the question, we have the so-called *natural* growth of the population, which thus, if we consider humanity as a whole, is the only foundation for the increase of the population. In a country where migration is trifling, the *actual* growth of the population is identical with its natural growth.

This was in the main the case in Norway until 1845; subsequently, however, the emigration surplus has detracted to a considerable degree from the growth. While the actual growth during the years 1856—1865 still amounted to 89 per cent of the natural, from 1866 to 1875 the country retained only 51 per cent, and from 1876 to 1890, no more than 46 per cent of its excess of births.

To illustrate the actual growth of the population, and its dependence upon the amount of emigration, the following diagram is subjoined. The unbroken line represents the actual growth of the population, while the dotted line indicates the surplus of emigration.



The proportion of the actual to the natural increase of the population, however, is very different in the cases of the towns and of the rural districts, the latter having always borne the excess of emigration for the whole country, and having, moreover, been obliged to relinquish a part in order to augment the towns. How the proportion in this respect has stood since 1845 will be seen from the following table, which gives the actual increase of the population in the form of a percentage of the natural increase.

	Rural Districts	Towns
1846—1855	73.20 %	185.10 %
1856—1865	74.00 >	182.50 >
1866—1875	22.40 >	178.70 >
1876—1890	14.60 >	146.40 >

The rural districts, from 1876 to 1890, have only been able to retain 14.60 per cent of their excess of births, while the remainder is absorbed by emigration to the towns and abroad.

How the growth of the Norwegian population stands as compared with other European countries will be seen from the following figures, which are taken from the Swedish statistician, SUND-BÄRG's statistic tables, and give the annual growth-percentage for the years 1881 to 1890.

	Excess of Births	Excess of Migration	Actual Growth percentage
<i>Norway</i>	1.38 per cent	— 0.98 per cent	0.40 per cent
England	1.32 > >	— 0.22 > >	1.10 > >
Germany	1.15 > >	— 0.28 > >	0.87 > >
France	0.19 > >	0.04 > >	0.23 > >
All Europe	1.04 > >	— 0.17 > >	0.87 > >

None of the above-mentioned countries, and in reality no other country in Europe except Ireland, loses so large a portion of its births-excess by emigration as Norway.

V. MOVEMENT OF THE POPULATION.

MARRIAGES.

The number of marriages in Norway has amounted to from 13,000 to 14,000 per annum during the last few years. If the number of marriages be compared with the mean population, it will be found that for the years 1881—1890, the average percentage of marriages was 0.65 per 100 inhabitants. During the ten years immediately preceding, the percentage was considerably larger — 0.72 —, and has moreover varied not a little during the present century. It was largest in 1815 and 1816, when the country was at peace once more after the unhappy years from

1807 to 1814; in 1816 it rose to 1.02 per cent, and during the entire period from 1816 to 1826, it remained very high. After a fall in the succeeding period, it attained, during the very good business year of 1854, a new maximum of 0.86 per cent, a figure which has not since been reached. The average for the years 1891—1895 was 0.65 per cent.

Compared with conditions elsewhere in Europe, the number of marriages in our country is small. For the years 1881—1890, the number per 100 inhabitants for all Europe was calculated to be 0.80, Eastern Europe being 0.89 and Western Europe 0.74; Sweden 0.63, Denmark 0.73, Germany 0.78, while Servia appears with a maximum of 1.11 per cent.

With regard to the frequency of marriages, there is some difference between towns and rural districts, the number of marriages in Norway, as elsewhere, being relatively larger in the former. This has been more marked during the last 50 years, as the relative number of marriages in the country, owing to the continual migration of young men and women to the towns, has diminished more than in the towns. This will be better seen from the following table, showing the frequency of marriages from 1846 to 1895.

	The Kingdom	Rural Districts	Towns
1846—1855	0.78	0.77	0.85
1856—1865	0.72	0.71	0.81
1866—1875	0.68	0.66	0.78
1876—1885	0.69	0.67	0.78
1886—1895	0.64	0.59	0.80

As there are considerably more women than men in Norway, it follows that a relatively larger number of women remain unmarried, or in other words, that the frequency of marriages is rather greater in the case of men than of women.

If the number of marriages in Norway is comparatively small when compared with several other countries, this is due partly to an age-classification of the population that is unfavourable to this state — the quota of marriageable men and women being comparatively small —, and partly to the fact that in Norway, as in the other Scandinavian countries, marriages are generally contracted at a later age

than in Europe generally, a circumstance which is partly due to the slower physical development of Northmen generally, but also has various other reasons. In all the age-classes up to 30, therefore, there is a comparatively greater number of unmarried men and women in the Scandinavian countries than elsewhere in Europe. In this, however, a change sets in in the succeeding age-classes, so that the number of married men from their 35th year, and of women from their 40th year, is comparatively larger than in most European countries.

The average age in Norway, in 1881—1885, for entering the state of matrimony was 30.25 for men, and 27.07 for women. In Sweden the corresponding ages (1882—1886) were 30.40 and 27.80, in Denmark (1880—1884) 30.10 and 27.20, and in France 29.60 and 25.40 respectively. Thus the average difference in age between bride and bridegroom in Norway was 3.20 years, in Sweden 2.60, in Denmark 2.90 and in France 4.20.

The percentage for the years 1887—1891 of men who married before the age of 25 was — according to BODIO — in *Norway* 28.30, Sweden 26.80, Denmark 25.20, France 26.50, England 45.50 and Russia 66.10.

The following percentage of women entering the state of matrimony during the same period, were under 25 years of age: in *Norway* 47.10, Sweden 42.40, Denmark 46.50, France 62.70, England 60.70, and Russia 85.80.

With regard to the civil standing of the persons married, it is to be remarked that out of 100 marriages during the years 1866—1885, 85 were between bachelors and spinsters, a proportion which is still in all essentials correct, and which exhibits a certain increase from the period 1841—1865, when the percentage of this kind of union was a little below 83 per cent. On the other hand, the number of marriages between bachelors and widows exhibits a marked falling-off in the corresponding period. Marriages between widowers and widows are also fewer in number. The number of unions between widowers and spinsters does not amount to quite 10 per cent of all the marriages, and seems to have undergone no change during the last 50 years. Marriages contracted by widowers with widows in Norway, occupy, as regards their frequency, an average position among the countries of Europe.

When considered in comparison with the bachelors, the widowers in all age-classes in Norway, contract marriages more frequently

than the former. Out of 100 widowers, for instance, from 30 to 35 years of age, 24 per cent married annually during the years 1871—1880, and out of 100 bachelors, only 12 per cent. The same proportion holds good in the case of women.

The number of marriages in Norway, in which one of the parties had been previously divorced, amounts to 0.05 per cent, and is thus unusually small.

A comparatively large number of marriages in Norway are made between nearly-related persons. At the last census, it was demonstrated that 6.70 per cent of all married persons were mutually as nearly, or more nearly related than second cousins. Consanguineous marriages are most frequent in the more remote valleys, and are greatly dependent upon the development of the means of communication.

BIRTHS.

At the present time in Norway, rather more than 60,000 children are born annually, not including still-born children. This number is equivalent to rather more than 3 per 100 inhabitants. The proportion varies somewhat from year to year. The lowest birth percentage for a period of 5 years in Norway, during the present century, is shown by the years 1806—1810, which, as already mentioned, was a time of war, with much want and misery. During these years, only 2.68 children per 100 inhabitants were born annually, and in the famine year, 1809, only 2.22. At the conclusion of peace in 1815, the number of births rose, and in 1816 attained the hitherto highest ratio, viz. 3.51 per cent. Until the end of the thirties, they remained at a comparatively high level, but then fell off somewhat until the sixties, when they once more showed a comparatively high figure — about 3.30 per cent. Since 1871, the number has kept comparatively regular — from 1871 to 1880, 3.09, during the next 10 years, 3.08, and from 1891 to 1895, 3.02 per cent.

Most of the other European countries show a higher percentage of births than Norway. The average for Europe for the years 1881—1890 is reckoned at 3.81 per cent, that for Eastern Europe being 4.62, and for Western Europe 3.29 per cent. The considerable difference is due, on the one hand, to the exceedingly large percentage of births in populous Russia — 4.80 per cent; while the small number of births in France — 2.39, less than half that of Russia — con-

tributes greatly to reduce the ratio for Western Europe. Of our more immediate neighbours, Sweden, from 1881 to 1890, showed a rather smaller, Denmark and Finland a rather larger number of births than Norway.

The average percentage of births is rather larger in the towns than in the country.

That there are always more boys born than girls is one of the oldest experiences in birth-statistics. In most European countries, the difference, in children born alive, is about 5 or 6 per cent. During the years 1887—1891, for instance, in Norway, 105.80 boys came into the world to every 100 girls, and the proportion during the present century has remained constant, the average for the years from 1801—1885 being 105.27 to 100. In England, during the 5 years 1887—1891, the proportion was 103.60 to 100, while in Greece, on the other hand, for the years 1881—1885, it is stated to have been 118 boys to 100 girls.

If the still-born children are taken into account, the difference becomes somewhat greater, as here the majority of boys is much greater than among those born alive.

The number of still-born children in Norway is about the same as in Sweden and Denmark, but somewhat less than in most other European countries. It is considerably larger among illegitimate than among legitimate children. During the years 1887—1891, 3.92 per cent of the illegitimate children in Norway were still-born, but only 2.58 per cent of the legitimate. In France the difference was even more marked, 7.82 per cent being illegitimate still-born children, as against 4.27 per cent legitimate still-born children.

The classification of births as legitimate and illegitimate is of much interest, as it helps to throw light upon the moral conditions of a country; but from a purely statistical stand-point, it cannot be accorded the same significance. On the other hand, however, it cannot be pronounced altogether destitute of interest to population statistics, more especially because the illegitimate children, as a rule, do not bring to society the same strength as the legitimate, as they more frequently fall into unfortunate conditions of life, and become a burden to society. If we compare the state of affairs in this respect in Norway with that in other European countries, it will be found that although in our land there are indeed fewer illegitimate births than in the neighbouring countries (in Norway, for instance, during the years 1891—1895,

7.22 per cent of the total number of births were illegitimate, in Sweden, 10.52 per cent, and in Denmark, 9.45), yet the average proportion for Europe is much more favourable, although both Germany and France, as well as a few other countries, have a higher illegitimate percentage than Norway. In Russia, the number of illegitimate births is strikingly small — 2.78 per cent —, which may be chiefly ascribed to the very early marriages in that country. In Norway, too, the number of illegitimate births was considerably lower in former times than it has been during the last 50 years, amounting, during the last third of the previous century, to only about 5 per cent of the entire number of births.

The number of births at which more than one child came into the world, seems to be about the same in Norway as in Europe generally.

With regard to the frequency of births at the various seasons of the year, it may be remarked that the largest number of children are born in September, and the fewest in November, the number for the years 1866—1885 being 176 and 141 respectively in the 24 hours, for births in general. Of the four quarters of the year, the spring quarter, March to May, showed the greatest average number of births in the 24 hours, viz. 163, while from June to August, there were 151. The annual average for the above period of 20 years was 158.50 per 24 hours. This greater frequency of births in the spring quarter, which is also found in several other countries, has both social and physical causes.

The number of births is not dependent only on the number of married, or rather adult women, but also on their fecundity. This is comparatively good as far as Norway is concerned. According to a calculation for the years 1871—1880, there is the following annual number of births per 100 women of ages from 15 to 50: in Norway 12.90, Sweden 12.50, Denmark 13.20, Galicia 17.50, and France 10.60.

If, on the one hand, the number of married women in child-bed be compared with the total number of married women of ages from 15 to 50, and on the other, the number of unmarried women in child-bed, with the total number of unmarried women of the same ages, the comparison will be found to be favourable to Norway, the percentage of fecundity in married women being relatively high, while it is not so in a corresponding degree in the case of the unmarried women.

The age of the mothers is of great significance to their fecundity. According to calculations based upon the census of 1875, and upon the number of births during 1875 and 1876, the following numbers of births occurred in Norway in the several age-classes. (For purposes of comparison, similar calculations according to SUND-BÄRG, for Sweden, Denmark and Germany, for the years 1881—1890, are subjoined.)

Per 100 married women in each age-class, there was the following annual number of births:

Age *)	Norway	Sweden	Denmark	Germany
15—20	54.80	50.80	72.90	59.30
20—25	48.00	44.80	49.10	50.40
25—30	40.70	37.50	39.10	40.50
30—35	35.00	32.20	31.50	29.90
35—40	28.90	25.60	24.00	22.10
40—45	17.60	14.60	12.00	10.20
45—50	4.00	2.20	1.30	1.30

It thus appears that fecundity in Norway, as in other lands, is greatest in the youngest age-class, but that it diminishes much more slowly in Norway than in the other countries. The youngest class, however, is not very numerous in Norway, and does not yield even 1 per cent of the total number of births. The greatest number of these, namely rather more than a fourth part, are by mothers in the 30—35 years' class, and an almost equally large number in the preceding 5 years, while not quite an eighth part came in the 20—25 years' class. The largest number of fathers — about 25 per cent — were also between 30 und 35 years of age, while about 20 per cent came in the preceding and succeeding periods of 5 years.

The average age of the parents, which shows the average distance between the generations, was, in the case of legitimate children in Norway, in the period 1881—1885, 35.60 years between the *fathers* and their children, and 31.90 years between the *mothers* and their children. In the case of illegitimate births, the fathers' average age during the same 5 years was 28.20, and the mothers' 26.40.

*) For Norway, $14\frac{1}{2}$ — $19\frac{1}{2}$, and so on.

An earlier calculation of the number of children in every marriage in the various countries shows that Norway stands well in this respect, the average number of children by a marriage in our country being 4.70; in Holland, where the number is greatest, it is 4.88, and in France there is a minimum of 3.46.

DEATHS.

When, in spite of the very large amount of emigration during the last half century, the Norwegian nation has still been able to show such a rapid growth as it has done, this has its explanation, as will appear from what has been already said, not in any specially large number of births, but in an unusually low death-rate among the population.

The number of deaths varies far more from year to year than the annual number of births. For the last few years, the figures are as follows for Norway: in 1893, 32,915 deaths, in 1894, 34,355, in 1895, 32,189, in 1896, 31,574 — thus showing a difference, between 1894 and 1896, of between 8 and 9 per cent.

Considered in relation to the population of the country, there were in the years 1881—1890, as in the preceding 10 years, 1.70 deaths in every 100 inhabitants. If this rate of mortality be compared with the conditions in this country some time ago, there will be found a regular decrease in the mortality since the twenties, the death-rate falling from 1.98 per cent during the years 1826—1835, to 1.91, 1.83, 1.80 and 1.75 per cent successively during the following periods of ten years. During the years 1890—1892, the rate of mortality showed some increase, but has since again shown a decrease, the year 1896 presenting the unusually low death-rate of 1.62 per cent.

This steady decrease in the mortality bears witness to the growing culture and prosperity of the population, as also to the progress of the science of medicine during the century just expiring.

The death-rate is more favourable in Norway than in any other country in Europe, with the exception of Sweden, that country being able of recent years, to show just as low a death-rate. The average death-rate for most European countries during the years 1881—1890 was 2.77 per cent (during the years 1801—1820, 3.15 per cent). It was highest — 3.45 per cent — in Russia.

As is the case in almost all other countries, so it is in Norway, that the general percentage of deaths is not equally large for men and women, but considerably smaller for the latter. BODIO has calculated how the matter stands in the various countries for the years 1890—1893 (or thereabouts), and has found the following coefficients of mortality:

	For Men	For Women
Norway . . .	1.83 per cent	1.65 per cent
Sweden . . .	1.78 « «	1.67 « «
England . . .	2.06 « «	1.78 « «
Germany . . .	2.50 « «	2.25 « «
France . . .	2.36 « «	2.16 « «

For every 100 men that died in Norway, there were 91 women, in Sweden 91, in England 89, in Germany 90, and in France 92. In Ireland the number is about equal for the two sexes, while on the other hand, Saxony shows a proportion of 100 to 86. Thus in the case of Norway, the proportion is neither specially favourable nor specially unfavourable.

In Norway, as in almost all other countries, the mortality is less in the country than in the towns, and less in the small towns than in the larger ones.

The classification of the deaths according to *age* is of great importance. There is considerable difference in this respect between the various countries, although one and the same law holds good for all of them, viz. great mortality in infancy, then a decrease until the later years of childhood, and afterwards a more or less steady increase up to the more advanced ages. To demonstrate this proportion in Norway, the following table is given, showing the number of deaths per 1000 of each age-class. For the sake of comparison, the corresponding figures are added for Western Europe, for Bavaria, which is remarkable for its great mortality, and for France (after BODIO's calculations). (See table, page 116.)

The low death-rate our country shows for the first 5 years is here evident, although both France and Bavaria, in the succeeding groups of 5 years, present a much more favourable proportion of deaths than Norway, a proportion which continues, in the case of Bavaria, up to the age of 30. The mortality in the more advanced ages also, is again considerably less with us than in the above-named countries. Thus, while the strength of the Norwegian

Age	Norway	Western Europe	Bavaria	France
	1881—1890	1871—1880	1881—1890	1882—1890
0—5	40.70	89.20	105.40	63.80
5—10	7.80	8.80	6.90	6.20
10—15	4.50	4.60	3.00	4.00
15—20	5.70	6.00	4.20	6.10
20—25	7.70	8.30	6.70	7.50
25—30	8.10	9.20	7.70	9.10
30—35	8.10	10.00	9.20	9.70
35—40	8.40	11.40	10.80	10.20
40—45	8.60	12.90	12.00	12.00
45—50	9.60	15.20	14.40	13.40
50—55	12.80	19.50	18.90	17.20
55—60	17.20	26.30	26.60	22.40
60—65	24.70	37.90	39.30	33.80
65—70	34.20	56.90	59.10	49.20
70—75	46.60	88.00	91.30	76.60
75—80	74.60	131.60	141.00	108.20
80—85	129.10	} 217.60	198.10	163.70
85—90	193.50		314.20	196.20
90 et upwards	281.60		401.20	220.70
	17.00	25.60	27.80	22.00

population is displayed in an unusually low death-rate during infancy, and from 30 years upwards, its weak point lies in a comparatively high death-rate in the important years of youth and early manhood, of the causes of which only a partially satisfactory explanation can be given.

The death-rate in the first year, which is of such great significance in the natural growth of the population, is extremely favourable in Norway. Bodio has calculated the mortality-coefficient for the years 1884—1891 in Norway to be 95.10 per 1000. At the same time, he gives 279 for Bavaria for the years 1884—1893, and 167.10 for France.

There is a great correspondence between the two sexes as regards the mortality at various ages, although the ratio, with some few exceptions, is more favourable for the female sex than for the male sex. During the 10 years 1881—1890, the death-rate in Norway for the first year was almost 20 per cent higher for boys than for girls, but for the second and third years, scarcely 3 per cent higher. At ages from 5 to 15, the mortality was greater among

females than among males, a circumstance which was also found between the ages of 32 and 42. From that time, however, the death-rate is continually less in the case of women than in that of men, the difference reaching its maximum at 55—60 years, with a mortality percentage for the male sex, that is more than 20 per cent higher than for the female.

As already stated, the death-rate in Norway, as a whole, has become considerably less in the course of the present century; but the proportion in this respect is different for the several age-classes. Thus the first year shows considerable improvement, while in the two following years, the improvement is very slight. From 3 to 10, the mortality is rather higher, a fact which is chiefly explained by the diphtheria epidemics that have appeared since 1859. Taken as a whole, however, classes 0—10 for the period 1851—1891, compared with the years 1821—1850, show a considerable improvement in the death-rate for both sexes. In the next two ten-years' classes, i. e. from the 10th to the 30th year, a remarkable rise in the death-rate is apparent for both sexes, asserting itself very strongly during the years 1881—1890, and affecting especially the male sex. From 30 to 40, the mortality of the male sex from 1881 to 1890 shows some decrease compared with the period 1821—1830, while the mortality among the female sex is the same for the two periods. In all the succeeding age-classes, i. e. from the 40th year upwards, a constant diminution in the mortality is apparent in the course of the century.

In order to demonstrate the effect of the mortality in gradually reducing the ranks of the various age-classes in the kingdom as a whole, in the rural districts, the towns, and especially in Kristiania, the following *survival table* for the years 1881—1890 is subjoined. (See table, page 118.)

Thus while out of 10,000 boys, born at the same time, in the rural districts, 8,391 were still living after the expiration of 5 years, in the towns generally, there were only 7,674, and in Kristiania, only 6,963 left. At the age of 50, there were respectively 6,034, 4,969 and 4,543 still living, and in Norway as a whole, 5,801 persons (of both sexes together), the corresponding number in England being 5,352, and in Italy 4,078.

As a standard for measuring the mortality in a country, the length of a medium life-time is employed, i. e. the average number of years a person of a certain age has still to live.

Age	The Kingdom		Rural Districts		Towns		Kristiania	
	Males	Females	Males	Females	Males	Females	Males	Females
0	100,000	100,000	10,000	10,000	10,000	10,000	10,000	10,000
1	89,508	91,026	9,067	9,108	8,728	8,812	8,254	8,498
5	81,874	83,394	8,391	8,522	7,674	7,770	6,963	7,171
10	78,828	80,160	8,101	8,215	7,306	7,393	6,557	6,726
15	77,056	78,197	7,920	8,020	7,136	7,192	6,405	6,521
20	74,519	76,093	7,682	7,807	6,898	6,986	6,229	6,367
30	67,943	71,021	7,063	7,297	6,277	6,501	5,728	6,001
40	62,662	65,216	6,581	6,727	5,681	5,904	5,224	5,505
50	56,720	59,370	6,034	6,159	4,969	5,279	4,543	4,985
60	48,405	51,972	5,218	5,424	4,012	4,512	3,560	4,224
70	35,315	39,522	3,884	4,158	2,638	3,314	2,153	3,084
80	16,732	20,639	1,880	2,206	1,113	1,605	820	1,422
90	2,595	3,816	290	423	116	236	86	203
100	46	80	6	11	1	3	1	2

In no other land, with the exception of Sweden of quite recent years, can so long an average life-time be shown as in Norway. For the years 1881—1890, the average life-time in our country is calculated at 49.94 years for both sexes together (as against 50.02 in Sweden); separately — for men 48.73, and for women 51.21 years.

It may be added, by way of comparison, that Italians, during the years 1876—1887, only attained an average age of 35 $\frac{1}{4}$ years. At the age of 50 in Norway, a man had still 23.08 years of life to live, a woman 24.45, and men and women together on an average 23.76; while an Italian who had attained the age of 50, had only 19 $\frac{1}{2}$ years more in prospect.

IMMIGRATION AND EMIGRATION.

As there is no obligation to foreigners settling in the country to report themselves to the authorities, it is difficult to obtain reliable information as to the annual *immigration*. On the subject of immigration from Sweden, whence comes the largest proportion of immigrants to Norway, there is, however, a certain amount of information obtainable from Swedish statistics, showing that immigration to Norway from Sweden during the years 1881—1890 amounted to 1347 persons annually, as against 1634 during the previous 10 years. In the case of other countries, we are reduced

to conclusions that may be drawn from the declarations as to place of birth in the censuses. The subject is treated of above. It will there be seen that immigration from other countries than Sweden is comparatively trifling. The increase of the foreign element in Norway during the last few decades, is also mainly due to the excess of emigration to Norway from her above-named sister country.

With regard to *emigration*, it may be expedient to distinguish between emigration to European countries, and transatlantic emigration. Particulars as to the former are very incomplete, and it is only indirectly, by the aid of information contained in the censuses of the various countries, concerning those in their enumeration who are Norwegians by birth, that the extent of emigration can be guessed. Sweden, however, in this respect also, forms an exception, as she gives in her population-statistics annual statements relative to the immigration from Norway. From these it appears that during the years 1881—1890, 6315 persons emigrated from Norway to Sweden. This shows a very great increase from the previous 10 years, when the entire number of Norwegian emigrants to Sweden was 2835 persons. The total number of Norwegian-born persons settled in Sweden on the 31st Dec. 1890, was 6287, in Denmark on the 1st Feb. 1890, 3385, while in addition to these, rather more than 8000 persons, including Norwegian seamen on foreign, but not on Norwegian, ships, were resident in European countries.

It has been already mentioned that in the course of the present century, Norway, by her *American* emigration, has lost a comparatively larger portion of her population than any other country in Europe, with the exception of Ireland. The majority of the emigrants have shaped their course to the United States, selecting especially several of the north-western states for their future home. Large parts of these states, particularly Minnesota, Wisconsin, Illinois and Iowa are occupied by settlements of Norwegians. The total number of Norwegians in the United States on the 1st June 1890, according to the American census, amounted to 322,665 persons.

Besides to America, some Norwegians have emigrated to Australia since the middle of the sixties. During the years 1871—1875, there were about 1500 persons, while since 1880, the number has been quite small. Their destination has been chiefly South Australia, Victoria and New Zealand. Some have also settled in the Sandwich Isles. The total number of Norwegians in

Australia may be estimated at about 3500, while about 500 are in the above-named islands. Moreover, during the last few decades, some Norwegians have settled in South Africa, in the Argentine Republic, etc.

The regular emigration to America began in 1836, but first assumed larger proportions in 1843, when the number of emigrants rose to 1600. The movement has been by fits and starts, with great variations from year to year. During the years 1866—1870, which were here in a great measure a period of financial depression, the number rose to about 15,000 per annum, or an average of 0.86 per cent of the population. In the seventies it fell once more, the annual number being about 8500, with a minimum of 3200 in 1873. In the eighties emigration assumed such proportions as it had never had before, rising in 1882 to 28,800 persons, or 1.50 per cent of the population. For the 10 years 1881—1890, it averaged 18,669, or 0.96 per cent annually. It was also considerable during the years 1891—1893, but of later years has been comparatively small — 5000 to 7000 per annum.

The male sex has been in the majority among the emigrants, but the proportions have varied considerably in the different years. The average for the period 1866—1885 was 56.30 per cent men, and 43.70 per cent women.

Most of the emigration has been from the rural districts, including especially day-labourers, etc., artisans, seamen and peasants, but also people of all classes. All the age-classes have been represented, but the comparatively greater number of both men and women have been of the ages 20—35, and especially 20—25.

Concerning the influence of emigration on the growth of the population at home, we would refer the reader to what has been said in the section on the growth of the population.

BIBLIOGRAPHY.

Norges officielle statistik, specially:

No. 106: *Översigt over folkemængdens bevægelse 1866—1885.*

284: *Översigt over de vigtigste resultater af folketællingen i Norge 1. januar 1891.*

304: *Livs- og dødstabeller for det norske folk, 1880/81— 90/91.*

GUSTAV SUNDBÄRG. *Grunddragen af befolkningsläran.* Stockholm. 1894.

A. BOSTRÖM. *Jemförande befolkningsstatistik.* Helsingfors. 1891.

G. VON MAYR. *Statistik und Gesellschaftslehre. II.* Freiburg i. B. 1897.

Statistisk tidskrift 1897 ff. (hefte 3, Internationale oversigtstabeller af GUSTAV SUNDBÄRG).

PREHISTORIC PERIODS

THE earliest evidences of human habitation that are found in Norwegian soil, show us a people that have not known the use of metals, and have, in their stead, employed stone, bone, horn and wood for their weapons and tools. When this people came to Norway cannot with certainty be said, but it must, at any rate, in all probability have been at least 4000 or 5000 years ago. The first inhabitants of Norway immigrated through Sweden and Denmark; and there is no ground for supposing that the original inhabitants have subsequently been mixed up to any considerable extent with new elements. Norway, Sweden, Denmark, and part of Germany, together form an archæological province, that is to say, in these countries the same types of antiquities, and the same periods, are found again. Every new influence has then naturally come last to Norway.

The palæolithic period is not represented in Scandinavia. Of the earlier part of the neolithic period, which is represented in Denmark by the kitchen-middens there are almost no remains in Norway; but antiquities from the latter part of the neolithic age have been found, though not in great numbers, all over the country, up to far within the arctic circle. That Norway at this time had a settled population is proved by the fact that in several places, the so-called workshops of the stone age have been found, i.e. places where the quantities of fragments of stone strewn around, and finished and half-finished tools and weapons, show that quite a wholesale manufacture of implements and other similar articles has been carried on in the stone age.

The Norwegian population in the stone age was in all probability not very numerous; the Scandinavian cultural centre of the stone age lay farther to the south, and it is therefore only by inferences from Sweden and Denmark, that any idea can be formed of the life in Norway during the stone age. It is probable that up to the end of the stone age, the population of Norway continued to be a hunting and fishing people, while in the neighbouring countries it can be proved that cattle-rearing was carried on.

The stone age here in the north continued longer, and was therefore able to develop more than elsewhere in Europe. The antiquities — in Norway also — bear witness of a far-advanced culture, and are remarkable for their beautiful, often elegant shapes and careful workmanship.

The most populous parts at this time were the coast districts round the Kristiania Fjord, Jæderen, and the districts round the Trondhjem Fjord. Antiquities from the stone age that have been buried with their owners are very rarely found in Norway. They are almost exclusively found in fields, that is to say, have found their way into the earth quite unconnected with any burial; as a rule, they have been lost, or hidden away during war or danger, or from religious motives. It cannot be said with certainty when the stone age ended, but a knowledge of metals certainly came here between 1500 and 1000 years before the birth of Christ.

The so-called arctic stone implements form a characteristic group. They are remarkable both for their peculiar shapes and for the kind of stone of which they are made. The ordinary stone-age implements are of flint, sandstone, or some kind of eruptive rock, while the arctic stone implements are almost exclusively of slate. They are chiefly found in the most northerly districts of the country, where the ordinary stone implements are never, or hardly ever found. In Sweden, it is the same. It is therefore believed that the so-called arctic stone implements did not belong to the same race of people, and the same culture, as those which have left their evidences elsewhere in Scandinavia. It is believed that this stone-age culture belonged to the forefathers of the Lapps, who inhabited those northern regions even in prehistoric times. As it is historically certain that the Lapps long continued to use stone implements, several of the so-called arctic stone articles may be from fairly recent times. The only kitchen-midden from the stone age, hitherto found in Norway, contained only arctic stone implements.

The first metal that the people of the north became acquainted with was bronze, a mixture of copper and tin. Copper, which is found in great quantities in many places, though not in the north, was first used alone. It was gradually discovered, however, that a harder metal could be obtained by adding a little tin to the copper. Implements made of pure copper are, however, also found in the north. Bronze is very superior to stone and the other materials used in the stone age. It was therefore easy for it to supersede stone, the difficulty being that all bronze had to be imported from southern lands, and it was therefore very costly. Stone implements have therefore also been employed to no small extent in the bronze age. A great many, especially stone axes, were used far on into the bronze age; but no certain distinguishing mark has been found between the stone articles from the stone age and those from the bronze age. In the Scandinavian museums, therefore, all stone implements are classed under the stone age, unless they are actually known to have been found with bronze things.

We cannot of course expect to find any close connection between the forms of the stone age and those of the bronze age, as the materials are so different. Moreover, the acquaintance with metals came from foreign nations, and the primitive types were developed on foreign soil. The earliest bronze articles arrived here in a ready-made condition; and it is these, and not the forms of the stone age, that have been the foundation for the forms of the Scandinavian bronze age. During the bronze age, the knowledge of yet another metal was possessed, namely, gold, which was used for trinkets. The ornaments of the bronze age are very characteristic, and it is therefore easy to distinguish them from those of other periods. By the discovery of moulds, etc., it has been proved beyond doubt that weapons and implements were manufactured by the people dwelling here.

Up to the present, there have been few discoveries of articles from the bronze age in Norway, as compared with Sweden and Denmark; but as most of them have been made within the last 25 years, it is certain that many more will follow. We have hardly any *graves* from the stone age, while from the bronze age, we have many. It can be proved that in the early part of the bronze age, the dead bodies were not burnt before burial, while cremation was general in the second, later part. A large proportion of our antiquities from this period, however, do not come from graves, but

have been accidentally found in the ground, where they have been lost, or buried by their former owners as in a place of security. Several such have been found under large stones, or on inclines covered with *débris*. Things are seldom found in bogs here. Discoveries of remains from the stone age are far more numerous in Norway than of those from the bronze age; but as already mentioned, a great many of our stone articles must have belonged to the bronze age. Moreover, stone objects keep much better in the earth than bronze, which, in unfavourable circumstances, may disappear altogether. Stone things, on the contrary, are almost imperishable. In this case, therefore, it would be wrong to infer the size of the population from the number of things found. In Norway the distribution of the population during the bronze age was very much as it was in the stone age.

Among the permanent memorials from the bronze age, we have the rock engravings, rough drawings, scratched upon stone. They are most frequently found on the solid rock, on slightly sloping, so-called «*svaberg*» (smooth mountain-side); less frequently they occur upon large loose stones. Two classes of figures can be clearly distinguished. The first class consists of figures that are not actual representations of things in nature, but which must have a symbolic significance. The second class comprises representations of actual things in nature. It is evident from these pictures, that navigation has played a very important part, and that farming was known.

The bronze age probably lasted in Norway until 300 or 400 years before the birth of Christ.

The knowledge of iron also came to the Scandinavian countries from the south, namely, from the countries nearest — on the north side — to the Alps. The iron age is generally reckoned as lasting until about the year 1050 A. D., i.e. until the time when Christianity was established in the country, and, as a consequence, the heathen burial custom of burying weapons and implements with the body ceased. The iron age is divided into two great main divisions, viz. the early iron age until about 800 A. D., and the later iron age, or the *viking* period, from 800 to about 1050. The early iron age is further divided into three sub-divisions, according to the various influences that have prevailed in the Scandinavian countries, namely, the pre-Roman, the Roman, and the post-Roman or middle iron age. In the first part, the Roman influence has not yet reached the north, in the second it is very perceptible.

and in the third, the antiquities exhibit a great resemblance to those that occur in the Frankish, Burgundian, and Anglo-Saxon graves from the later period of migration, but display to a still greater extent than these, a barbaric development, deviating farther and farther from the Roman patterns that had previously influenced them. By the year 800, new influences again assert themselves, with the commencement of the *viking* expeditions to the West from the Scandinavian countries. These expeditions and the close connection with Western Europe resulting from them, have contributed more than anything else to give to the later iron age its peculiar stamp here in the north. The influence from these countries is very clearly apparent in the remains of this period.

With the close of the later iron age, the principal task of prehistoric archæology is concluded. From that time the written historical sources gain in fulness and trustworthiness, while the archæological sources are dried up. The introduction of the Christian form of burial has resulted in the almost total absence of antiquities from the period that followed. What there are go principally to illustrate the written history; they no longer possess an independent significance.

In the stone and the bronze ages, Norway was poor in prehistoric remains as compared with Sweden and Denmark. This dissimilarity is already lost in the early iron age. As regards the number of discoveries of antiquities, Norway is now not very far behind Sweden and Denmark. From this it may be concluded that the population has made more rapid progress in the beginning of the iron age in Norway than in the neighbouring countries. Not until the iron age did Norway have a population that corresponded to her ability at that time to afford sustenance to human beings.

Norway is very abundantly furnished with antiquities from the later iron age. Although this period comprises a much shorter time than the early iron age, yet the number of known discoveries of antiquities from the later iron age is about twice as many as those from the early iron age. The graves, moreover, are generally richer in remains than those of Sweden and Denmark, especially as regards weapons and all kinds of implements, the latter especially being far more abundantly represented in Norway than in the neighbouring countries.

The first indication of the use of letters appears in the early iron age. The runes, which are based upon the Latin alphabet,

seem to have come to the Scandinavian countries at the same time as the antiquities that indicate the earliest influence of Roman culture. The runic characters are only found in short inscriptions, of which the language has proved to be a Germanic dialect.

Both cremation and burial without cremation are found throughout the iron age. Generally a barrow was raised over the dead. One peculiar method of burial, only met with in the later iron age, is the laying of the body, either burnt or unburnt, in a boat or ship, covered with a round, or oval barrow. Remains of grave-ships of this kind have been found in various barrows in Norway, and in two cases, the barrows have been made of potter's clay, in which the wood has been so well preserved, that the ship is almost unimpaired (the ships from Tune and Gokstad, in the Museum of antiquities in the Kristiania University).

The largest collections of antiquities are in Kristiania, Bergen and Trondhjem.

BIBLIOGRAPHY.

- Antiquités norvégiennes arrangées et décrites* par O. RYGH. P. 1—2. Kristiania. 1885.
- O. RYGH. *Om Helleristninger i Norge*. Kristiania. 1873.
- « *Om den ældre Jernalder i Norge*. Kjøbenhavn. 1869.
- « *Om den yngre Jernalder i Norge*. I. Kjøbenhavn. 1877.
- A. LORANGE. *Om Spor af romersk Kultur i Norges ældre Jernalder*. Kristiania. 1873.
- « *Den yngre Jernalders Sværd*. (Résumé in French.) Bergen. 1889.
- J. UNDSET. *Jernalderens Begyndelse i Nord-Europa*. Kristiania. 1881.
- « *Fra Norges ældre Jernalder*. Kjøbenhavn. 1880.
- N. NICOLAYSEN. *Langskibet fra Gokstad ved Sandefjord*. Kristiania. 1882. (In English and Norwegian.)
- O. MONTELIUS. *Les temps préhistoriques en Suède et dans les autres pays scandinaves*. Paris. 1895.
-

HISTORY

NORWAY, whose name in its ancient language was Norvegr or Noregr, was once of somewhat larger extent than it is at present. The Swedish provinces, Jemtland, Herjedalen and Baa-huslen were Norwegian until the middle of the 17th century. Finmark was originally a Norwegian tributary land, reaching to the White Sea, and also including the Kola Peninsula. By immigration from Russia, it early became partially dependent upon the rulers of that country; and the consequence of this was a contraction of its boundaries towards the NE.

Norway was inhabited long before all tradition and all history. The probability is that its colonisation was effected by the progenitors of the Norwegian people, who were established there at the opening of the historic period. According to the old tradition, the country was divided among a number of mutually independent tribes, under chieftains who directed the worship of gods, and took the chief command in war. In all the tribes, the people's liberty was carried to the furthest extent. The free men settled their legal disputes, and passed laws. Outside the community and the laws stood the unfree men, the thralls. The religious conception was the same as that which prevailed in Germanic heathendom.

The earliest organised political community must have originated in the regions round the Trondhjem Fjord, where the Trønder tribes had early united in a peasant community consisting of 8 small shires (fylker) each of which settled its own affairs at its own Thing; but they were also united in wider associations, with a common worship and administration of justice.

As far as can be ascertained, the Trønders' tribal league stood almost exclusively in peaceable relations with the outside world, and only had a small share in the great development of power which took place in the later iron age, through the viking expeditions.

These warlike expeditions began at the end of the eighth century. Through them, the Norwegian tribes which had not yet attained to the harmony characteristic of the Trønders, came into immediate contact with neighbouring and far-distant races living in conditions developed under the influence of the Græco-Roman and Christian culture. Warriors from the west set out on expeditions to the British Isles, where they founded new kingdoms without breaking off the intercourse with their native country. Warriors also went from the south or east country, and, in conjunction with armies from Denmark and Sweden, laid waste the land of the Franks.

It is possible that this movement was accelerated by the revolutions in connection with the establishment of the Norwegian monarchy. In the east country, in the districts nearest to the Kristiania Fjord, during the first half of the ninth century, several shires were united under one royal race, the Ynglings, who came from Vestfold, but traced their descent from the old Upsala kings and from the god Frey. Under one of the Vestfold kings, the able and beloved HALVDAN SVARTE («the Swarthy»), who died about the year 860, their kingdom was extended to the districts round and to the north of the Kristiania Fjord (Viken and Opplandene). Halvdan's son, HARALD, afterwards called HARALD HAARFAGRE («the Fair-haired»), had first to secure the kingdom he had inherited from his father, and thereupon crossed the Dovre Mountains to Trondhjem, which he succeeded in subjugating. He then took up his abode in this well-populated and excellently organised community, and made thence one expedition after another against the western shires, whose opposition was at last completely broken down at the great battle of Hafsfjord (872). From this time is reckoned Norway's union into one kingdom. In order to strengthen the monarchy, Harald attached to himself the mightiest men in the various shires by conferring upon them positions of dignity, such as *herser* or *lendermænd*, as they were afterwards called. At the same time he limited the influence of the yeomen, and compelled them to pay taxes. But by so doing, he caused great discontent, and many who could not become

reconciled to the new order of things, left the country. Some of them joined the vikings, who were scouring the seas, and some settled down on the Faroe Isles, or the islands off the coast of Scotland, and thence made frequent inroads upon the Norwegian coast. One summer — about the year 875 — Harald himself set out on a warlike expedition to the Orkneys, the Shetland Islands and the Hebrides, which he subjugated and placed under the government of earls (*jarler*). The emigration from Norway and the Norwegian settlements in the west subsequently took the direction of Iceland, which had shortly before been discovered by Norwegian sailors. During the two succeeding generations, an active emigration went on to this lonely island, where a free political community was developed after the pattern of the old conditions in the mother-country.

In his old age, Harald Haarfagre marred his great achievement by dividing the kingdom between his sons in the year 930. It was to be governed, however, by a supreme sovereign. For quite a century, this occasioned disputes between the various branches of the royal house who fought for the throne. It also gave occasion for the interference of the Danish, and to some extent of the Swedish king in the affairs of the kingdom, and was the origin of endeavours to re-establish the former order of things. But with all this schism, the achievement of Harald Haarfagre made itself apparent in the growing consciousness in the mind of the nation that it constituted *one* people.

Three years before the death of Harald, his son ERIK BLODØKS («Bloody-axe») had become the supreme sovereign of the country. In 934, however, he had to yield to his youngest brother HAAKON, who had been brought up in England by King Athelstane, and was supported by the Trønders. Haakon's reign was marked by a series of meritorious reforms. The old Thing-association of the Trønders was extended by the union with it of several shires; and the common Thing-place was now removed to Frosta (*Frostathing*). The *Ørething*, however, continued to exist as well, and it came to have a special importance as the place where the oath of allegiance to the Norwegian kings was taken. The west-country Thing too, which originally consisted of the three shires that joined one another at the mouth of the Sogne Fjord, was enlarged by the addition of three other shires. They had common laws, and a common Thing-place at Gulen (*Gulathing*). The defence of the country was also now organised

by the imposition of a levy which obliged the yeomen in the coast districts (*«skibreder»*) to equip and man war-ships. Haakon, who was honoured by his people with the surname of THE GOOD, fell in 961, while defending his country against the sons of Erik Blod-øks, who were assisted by the Danish king. After the brothers had governed cruelly for 9 years, the eldest of them, HARALD GRAAFELD, was assassinated in Denmark, whereupon the others were obliged to yield to Earl HAAKON, the chief of the Trønders. This chieftain succeeded in liberating himself from the condition of dependence on the Danish king, in which he had originally stood, and defeated the renowned warriors, the Jomsvikings, whom that king sent against him. Although Haakon had submitted, under compulsion, to baptism, he was a fanatical heathen; and at last, by his cruelty and licentiousness, he alienated the affections of his people. They rose against him, and he was murdered, while fleeing, by a thrall who accompanied him (995). Just at this time, OLAV TRYGVESSØN, a descendant of Harald Haarfagre, came to the country, and was immediately chosen king by the Trønders. Olav is one of the most brilliant figures in Norwegian history. After a romantic boyhood, he had distinguished himself as leader of a viking army that had ravaged England. Immediately before his coming to Norway, he had embraced Christianity; and now, after becoming king of the country, he began to enforce the adoption of the Christian faith. In the course of a few years, he had, in true viking fashion, brought the population of the entire coast, from Viken up to the borders of Finmarken, under the dominion of «the White Christ». His proclamation of Christianity extended also to the Norwegian settlers in the Orkney and Faroe Isles, to Iceland, and to Greenland, then just discovered. When returning from an expedition to Venden, Olav was attacked by an army of superior force, that had been gathered against him by Earl Haakon's son ERIK, the Swedish king Olav Skotkonung, and the Danish king Svend Tjageskæg. After a most heroic defence, his men were nearly all killed, and he himself, mortally wounded, sought a grave beneath the waves (9th September, 1000)

Norway was now divided between the Danish and Swedish kings and Earl Erik; but the kings gave up their shares to Erik and his brother SVEIN, who governed them as their vassals. When the Danish king, Knud den Store («the Great») went to invade

England, he called upon Earl Erik to assist him. The Earl obeyed the call, and never saw Norway again.

In the spring of 1015, OLAV HARALDSSØN, a descendant of Harald Haarfagre, returned to Norway from a viking expedition, determined to carry on the life-work of his kinsman, Olav Trygvessøn. With the aid of the Upland kings, he succeeded in overthrowing the earls' rule and the foreign dominion; and in Trondhjem, where «the chief power of all the land appeared to him to dwell», homage was done to him as king of Norway. Olav brought the little Upland kings under the Norwegian dominion, and sought in every way to place the long-inherited power of the great chieftains under that of the king. He further strengthened his power by the introduction of Christianity, and the laws were adapted to the requirements of the new doctrine. But by his hard-handed policy, Olav Haraldsson soon aroused a strong opposition against himself. The rebels sought the aid of the Danish king, Knud the Great, who came with an army to Norway in 1028, and received homage at the Ørething. Olav fled to Russia, and when, some time after, he attempted to win back his kingdom, he was slain by the chieftains at Stiklestad in Værdalen (29th July, 1030). Not long after, he was regarded as a holy man. A rising of the people overthrew the Danish dominion in a short space of time, and Olav's saintly fame shed a radiance over the throne, and over his kinsmen and successors. It is not without reason that the century which now followed, after Olav's son MAGNUS had ascended the throne in 1035, has been called the period of Norway's greatness. The kingdom was now, by the unity brought about between the royal power and the aristocracy, enabled to extend its influence to the world around.

Olav the Holy's son Magnus (1035—1047) became also, by inheritance, king of Denmark. But after his death, that kingdom passed into the hands of Svend Estridsson, although Magnus's successor, HARALD HAAEDRAADE, brother to Olav the Holy, laid claim to it by force of arms. He subsequently tried to conquer England, but fell at Stanford Bridge, shortly before the Norman conquest of the country (1066). The efforts of his grandson, MAGNUS BARFOD (1093—1103), were directed towards the amalgamation of the Norwegian settlements on the islands off the coast of Scotland, and others, into one kingdom. Magnus fell during a descent upon Ire-

land. A few years afterwards, his son, SIGURD JORSALFAR, set off on a crusade to the Holy Land, where in 1110 he took the strong town of Sidon, which had hitherto defied the efforts of the crusaders.

But these warrior-kings also had an eye to the peaceful development of their country. Towns which had sprung up in former times — Nidaros [Trondhjem], Tunsberg and Sarpsborg — were aided, and new towns, such as Hamar and Oslo, were founded. But the people participated especially in the benefits of civilisation under the peaceful kings OLAV KYRRE (1066—1093) and EYSTEIN MAGNUSSØN (1103—1123). During the reign of the former, Bergen was founded as a centre for trade with England. Sigurd Jorsalfar was also a man of peace during the latter part of his reign.

After Sigurd's death in 1130, there followed a period of 110 years, that was occupied with contentions among the descendants of Magnus Barfod's sons as to the succession. In these quarrels, it was at one time the aristocracy and the clergy who had the upper hand, the latter playing an especially prominent part when the strong and powerful Eystein Erlandssøn occupied the Norwegian archiepiscopal see. Special interest attaches to the struggle between Sigurd Jorsalfar's grandson, MAGNUS ERLINGSSØN, and SVERRE SIGURDSSØN, a great-grandson of Magnus Barfod. In 1164, Magnus Erlingssøn, who was then a child, had been crowned by the archbishop, after his father, the chieftain ERLING SKAKKE, had promised on his behalf that the kingdom should be subject to St. Olav, and that after the king's death, the crown should be given as an offering to that saint. Simultaneously a change was made in the public law of the kingdom, which would have given the bishops the power to nominate the future king. On the other side, Sverre Sigurdssøn, who had presented himself in 1177 as a claimant to the throne, upheld the hereditary monarchy and the supremacy of the king over the church. Erling Skakke fell in 1179, and Magnus Erlingssøn in 1184; but the very year before, the archbishop had been obliged to come to an agreement with Sverre, and to recognise him as king. After archbishop Eystein's death, his successor continued the struggle, but king Sverre compelled him to leave the country. The king, in return, was placed under the pope's ban, and new parties, supported by the clergy, rose against him. During the struggle, king Sverre died (1202). It was his grandson, HAAKON HAAKONSSØN, who became king in 1217, who

first crushed the rebellious faction raised by the clergy, and slew the last of the claimants they supported, namely, Duke SKULE (1240).

Once more a flourishing period intervened, which lasted for about 80 years, during the reigns of Haakon Haakonsson, his son MAGNUS LAGABØTER («the Law-mender»), and the latter's sons ERIC and HAAKON. During the struggles that preceded it, the old chieftain-families had been associated with the monarchy, whose influence was then extended to the domain formerly reserved to the people themselves, namely, legislation and judicial power. The latter gradually passed into the hands of the judges («lagmænd») appointed by the king. Abroad too, king Haakon enjoyed the greatest esteem. The French king, Louis IX, offered him the supreme command in a crusade which he was undertaking to Egypt and Palestine. Iceland and Greenland became subject to his dominion (1261—62). When the Scottish king attacked the Hebrides, king Haakon visited his country with an army, but died during the winter in the Orkneys (1263). His son Magnus, surnamed the Law-mender, ceded the islands in dispute to the Scottish king, in return for an annual tribute. For the rest, Magnus's attention was mostly directed to the matter of legislation, in which he gained great renown by the drawing up of laws for towns and rural districts, common to the whole country. He strengthened the relations between the royal power and the aristocracy, but did not succeed in putting down the usurpations of the church. After Magnus's death (1280), there were disputes between the temporal chiefs acting as regents during the minority of his son Erik, and the clergy, with whom, however, a reconciliation took place when the king came of age.

In Erik's time, the temporal magnates — the Barons — obtained a considerable influence at the expense of the monarch; but his brother and successor, HAAKON V MAGNUSSØN (1299—1319) succeeded in diminishing it. The dignities of earl and baron were done away with, and a new administration brought about.

With the death of Haakon V, the male descendants of Harald Haarfagre became extinct, and the country now passed into new connections, which at first were of a chance and personal character, but, owing to circumstances, were to become of eventful importance.

The decline had already set in during the country's last period of prosperity. Magnus Lagabøter, before his death, had granted to the German Hanse towns extensive trade privileges, which were subsequently increased to such a degree, that it soon

became almost impossible for Norwegians to carry on an independent trade. From the middle of the 14th century — after the establishment of their factory in Bergen — the Germans practically ruled the commerce of the country, and in other matters also had the game in their own hands. Fresh misfortunes that occurred during the course of the 14th century, threw the country back still further. The population was reduced by one third, by three visitations of the plague — in 1349, 1360, and 1371. As a consequence of the fact that the king now always resided abroad, the defences of the country sank into decay, while the noble families became extinct, or were merged in the peasantry.

Even the first union of the country with Sweden (1319—1380) and with Denmark (1380—1397) proved to be very detrimental to Norway, although it had no influence upon her political and international position. But this was still more evident when the Kalmar Union was brought about in 1397 by the election of ERİK of Pomerania, the hereditary king of Norway, as king of Denmark and Sweden. By this act, Norway was brought into an actual union, in which she was to play a subordinate part, while yet continuing to be an independent kingdom, and — after a treaty made between Norway and Denmark in 1450 — co-ordinate with Denmark, with a state council of her own.

By a *coup d'état* in 1536, a change was brought about in this condition of affairs. King CHRISTIAN III promised in his charter to make Norway into «a member of the kingdom of Denmark», so that she should hereafter «neither be, nor be called, a separate kingdom». But this promise was little more than empty words, for King Christian soon, without more ado, excused himself from fulfilling it, after Norway, in the following year, had come under his dominion. Although, during the events that occurred, the Norwegian state council was dissolved, Norway did not enter into anything like provincial relations to Denmark, but continued to exist and be designated as an independent kingdom. The kings also continued to regard the country as their inheritance while, in Denmark, they had to be elected. It was a consequence of the impotence of the country, and the impoverished state of the nation, that the Danish influence made itself more strongly felt than before. Norway kept her own legislature, and not many years after King Christian had given his promise of Norway's dependence, a special Norwegian naval defence was organised by royal command.

It was always kept up, and during the wars with Sweden, was brought up to the requirements of the times. In 1628, supported by the old regulations regarding the military defence of the country, there was further established a national standing army. From the time of CHRISTIAN IV's reign (1588—1648) — thanks to the interest the king took in the country — Norway was once more aroused to an independent existence by the rapidly growing prosperity of trade. Owing, however, to the defeats of the Danish army during the unhappy wars which this king and his successor waged with Sweden, several of the best districts had to be relinquished. After the war in 1658, Norway, by the cession of the district of Trondhjem, was almost brought into a condition of total dissolution; but the very next year, the army, supported by a rising of the people, retook that important district.

By political changes in 1660 and 1661, Norway was again placed on an equality with Denmark, under the rule of the hereditary absolute monarchs. These created a new administration, chiefly in the hands of native office-bearers, and improved the legislation by the introduction of CHRISTIAN V's Norwegian law. In the course of time, the absolute power of the Dano-Norwegian kings passed into a bureaucracy, against whose encroachments the common people sought and found their surest defence in the absolute monarch himself. Two wars, the GYLDENLØVE War (1675—1679) and the great Northern War (1709—1720), in which the young and intrepid naval hero, Peter Wessel, who was raised to the nobility under the name of Tordenskjold, won great renown, shed a lustre over army and fleet, but retarded the development of the nation. But during the long period of peace after 1720, its prosperity grew continually. Among the peasant classes, the number of freehold proprietors was steadily augmenting, and large tracts of land were brought under cultivation. New towns sprang up, and the population increased. Trade and navigation were extended after the middle of the 18th century. During the North American struggle for liberty, the government concluded an armed neutrality with Sweden and Russia. Under its protection, trade and navigation attained a hitherto unknown level, greatly to the benefit of the country. When, in 1800, the same powers in conjunction with Prussia, entered upon a similar alliance for the protection of their commercial interests, England endeavoured to break it. A brief war with that country was the consequence. After the battle in

Copenhagen Roads (2nd April, 1801), the united kingdoms, under the regency of the crown-prince FREDERIK, retired from the alliance, without, however, suffering any detriment to their flourishing trade.

This happy condition of the united kingdoms came to an end during the summer of 1807, when the agreement made at Tilsit between the emperors of France and Russia, as to the blocking of the continent, necessarily had a far-reaching significance for the Scandinavian countries. If Great Britain refused to accept Russia's mediation, and conclude peace with France upon conditions laid down by Napoleon, Denmark and Norway, as well as Sweden and Portugal, should be compelled to join the continental system. The Dano-Norwegian king was to surrender his fleet to the French emperor, in return for the Hanse towns. If Sweden refused to close her harbours to the British, Denmark and Norway should be compelled to wage war with the former, and the Czar would be at liberty to take Finland from Sweden, who was «Russia's geographical enemy».

The British government got wind of this agreement, and determined to forestall the emperor by compelling Denmark and Norway to fall in with their policy. There can hardly be a doubt that the outrage intended by the agreement at Tilsit would have obliged the Dano-Norwegian government to join cause with the British; but the short-sighted and violent action of British statesmen gave a different turn to affairs. They demanded that the fleet of the united countries should be brought to a British haven, where it should be kept until restoration of peace. While negotiations were still in progress, they sent a strong fleet of men-of-war to Øresund, and landed an army in Zealand. Copenhagen was surrounded, and after 4 days' bombardment, compelled to surrender (7th September, 1807). The British captured the Dano-Norwegian fleet, and plundered the dock-yards. They then gave the crown-prince the choice between peace, alliance, or war. In the event of his keeping peace, his fleet would be returned to him at the conclusion of the war. If he entered into an alliance with England, she would give him powerful support in the defence of his countries, which he would see extended by fresh acquisitions. If, on the other hand, he declared war against Great Britain, he should also have war with Sweden, and thereby expose himself to the loss of Norway. Moreover, he would see the trade of his subjects ruined, and his dependencies made subject to England. Look

at the matter as he would, the crown-prince could not for a moment doubt that in any case he would fare badly; but it was the action of the British that drove him into the arms of the emperor Napoleon. In November, 1807, the war broke out with England, and not many months later, hostilities were also opened with Sweden, who was abandoned to the mercy of Russia. Immediately after the arising of these complications, the crown-prince became king, by his father's death, of Denmark and Norway, under the title of FREDERIK VI.

As soon as the intercourse between Denmark and Norway had been broken off, Norway received a government of her own, the so-called government-commission, whose labours were continued until the end of 1809. At its head was General Prince CHRISTIAN AUGUST OF AUGUSTENBERG, under whose leadership the Norwegian army defeated the Swedish detachments in a series of actions, and drove them back across the frontier. At the same time, Russia overran Finland, and threatened to invade Northern Sweden. Lastly, an attack was organised on the southern part of the country by the Danes in conjunction with French troops under Marshal BERNADOTTE. Sweden was now in a most desperate situation, with utter ruin staring her in the face. Swedish patriots saw that the salvation of the country depended upon the removal of the stubborn king Gustaf IV Adolf, to whose narrow policy all the blame was ascribed. By an armistice with Norway, Lieutenant-Colonel Adlersparre, who had the supreme command on the Norwegian frontier in the spring of 1809, succeeded in obtaining liberty of action. He accordingly went with his army to Stockholm, Gustaf Adolf was deposed, and his uncle proclaimed king under the title of CARL XIII, prince Christian August, the Norwegian general, being chosen as his successor. Sweden purchased peace with Russia by the cession of Finland. Subsequently Denmark and Norway also concluded peace.

The war between the last-named countries and Great Britain, on the other hand, continued. It cost the Norwegians little bloodshed, but although the resolution to cut them off from the continent was not carried into effect, the prosperity of the country suffered severely. The exportation and importation of provisions was frequently hindered, and as the crops failed in the country itself, famine and want prevailed. In these circumstances, many Norwegians began to consider means for promoting the good of

their country, and relieving its necessity. At the end of 1809, Prince Christian August's friend, Count HERMAN WEDEL-JARLSBERG, and other patriots, founded the «Society for Norway's Welfare», whose object it was to labour for the material welfare and mental development of the nation. As early as 1811, the founding of a Norwegian university had been accomplished, a proceeding which the Danish government had hitherto opposed. But it appeared that the Society had another and wider aim in view, namely, that of freeing Norway from her union with Denmark. The union between the countries, however, was to be broken sooner than was expected, and without the intervention of the Norwegian people.

Immediately after the conclusion of peace in 1809, the prince of Augustenborg had repaired to Sweden, where, as heir to the crown, he assumed the name of Carl August. Great were the hopes that attached to this popular prince; but in the summer of 1810, he suddenly died during a gathering of troops in Skaane. The Swedes then chose as heir to the throne, the French marshal Bernadotte, hoping thereby to gain the friendship of the emperor Napoleon, and thus regain possession of Finland. They had reckoned, however, without their host. Napoleon and Bernadotte had never been friends, and the latter, who, as crown-prince, took the name of CARL JOHAN, took up his position in his new home independently of the interests of the empire. Soon after his arrival in Sweden, he undertook the government on behalf of the senile Carl XIII, and joined the friends of his predecessor, Carl August. They, remembering with gratitude the magnanimity of the Norwegian people towards their nation in 1809, endeavoured, in conjunction with various Norwegians, to bring about, in a peaceable manner, a union between the Scandinavian kingdoms. Towards the same goal, but from an altogether different point of view, another party was striving, who craved compensation for the loss of Finland. For the present, however, the crown-prince was able to work with both parties.

It was not long before a rupture took place between Napoleon and Carl Johan; and when the war broke out between Russia and France, the Russian emperor Alexander concluded an alliance with the Swedish crown-prince, promising him the possession of Norway (1812). After the destruction of the great French army in the course of the winter, Prussia, England and Austria joined the alliance. The first two powers guaranteed to Sweden the acquire-

ment of Norway, England also adding the proviso that whatever consideration was due to the liberty and happiness of the Norwegian people should be taken.

This reservation did not prevent the British government from sending their cruisers to blockade every Norwegian port, so that it was impossible for grain vessels to come across from Denmark. The condition of affairs in Norway, in consequence of this, was distressing. A terrible year of scarcity ensued, and to crown the work of destruction, a national bankruptcy occurred, which completely ruined what little prosperity still remained.

In these circumstances, the Swedish crown-prince put in his claim to Norway. King Frederik VI wanted to keep hold of this kingdom of his as long as possible. He saw that in the storm that was lowering, the union between the kingdoms must be completely dissolved; but in order that a re-union might take place when quieter times supervened, he sent up his cousin and heir, CHRISTIAN FREDERIK, as governor. In the autumn, the long-impending war with Sweden broke out; but at first little was to be heard from the frontier.

It was at a foreign seat of war that the question of a union between Norway and Sweden found its solution. In the spring of 1813, Carl Johan crossed to North Germany, where he commanded one of the allied armies in the decisive struggle against the emperor Napoleon. After the power of the latter had been broken at the battle of Leipsic (Oct. 1813), Carl Johan advanced against Denmark, and Frederik VI found himself compelled to conclude peace at Kiel, in which he gave up to the king of Sweden all his rights over Norway (14. Jan. 1814). But the treaty, clumsily drawn up as it was, was a remarkable specimen both of the ignorance of the negotiating parties regarding everything touching the constitutional position and history of Norway, and of the diversity of opinion that prevailed within the Swedish governing circles as to the future of the country. Merely the clause providing that the dependencies, Iceland, Greenland and the Faroe Isles should be loosed by a stroke of the pen from the mother-country, is in itself sufficiently characteristic of the inconceivable vagueness and superficiality with which it was drawn up. But the treaty also tried to impose upon the foreign powers, the allies of Sweden, a conception of the state of affairs that was opposed to the foregoing agreements. When these powers were called upon to interfere, a modification of the

provisions of the Kiel treaty took place, which in reality accorded with the manner in which the Norwegian people asserted their independence.

In absolving the Norwegians from their oath of allegiance to him, Frederik VI called upon them to become subject to the Swedish king. But the Norwegians were far from wishing to do so. The greater number of them considered it almost treason to think of a union with Sweden, and the events of the last year had in no wise contributed to change this feeling. The vice-regent, Prince Christian Frederik, supported by the prevailing opinion, wished to set himself up as king, after receiving the preliminary communication regarding the Treaty of Kiel. In order to gain time, he made a tour through Gudbrandsdalen to Trondhjem, seeking everywhere, by his engaging personality and his eloquence, to influence public feeling in his favour. In Trondhjem he received some support, but a large number of the citizens of that town agreed to draw up an address, in which they intended to point out to him the necessity to the country of having a constitution. The prince, however, looked upon his position as that of next heir to the throne, who could straightway have himself proclaimed king. On his way back from Trondhjem, he summoned some of the most respected men of the east country to an assembly at Eidsvold Ironworks, on the 16th February. These maintained that though there was nothing to prevent the Danish king from giving up his own and his descendants' claim to the Norwegian throne, he had no right to hand Norway over to another ruler, as he had done by the Treaty of Kiel. On the contrary, this had given the Norwegians themselves the right of deciding their own future, and consequently of determining all constitutional matters. This view, which was expressed by Professor GEORG SVERDRUP, won immediate sympathy, and it was resolved that a national assembly should meet at Eidsvold, to give the country a constitution. In the mean time, Prince Christian Frederik was to govern as regent. As a sign of the country's independence, she immediately received a flag of her own, which was the Danish one hitherto in use, with the ancient arms of Norway in the upper square next the pole.

The national assembly met at Eidsvold on the 10th April. The majority of the 112 members were in favour of Norway's being a separate kingdom. A minority of 30, led by Count Herman Wedel-Jarlsberg, held that a union with Sweden would be beneficial

and desirable, but that Norway should enter the union as an independent state with constitutional liberty. The national assembly drew up a fundamental law, which was passed on the 17th May; and it then proceeded to elect a king, a proceeding which the minority would have preferred to postpone. Christian Frederik was unanimously chosen king. He immediately surrounded himself with a council, and divided the affairs of the country among 5 departments, each governed by a cabinet minister. Councils were established for the Ecclesiastical and Educational Department, and for the affairs of the army and navy. For several reasons, no Foreign Office could be established; but the king took upon himself the charge of all matters belonging to that department.

Immediately after ascending the throne, Christian Frederik endeavoured to open negotiations with the Allied Powers, in the hope of thus gaining a recognition of the country's independence and constitutional self-dependence. Political considerations prevented his emissaries from being officially received; but the king found other means of enforcing his representations, which were not without their influence on the attitude subsequently held by the Powers.

After the Treaty of Kiel, Carl Johan had gone southwards with his army to assist the combined Powers in the last decisive battle with Napoleon. In various ways, he aroused the suspicion and displeasure of the princes; but having, on his side, fulfilled his obligations, he could also claim that his allies should make good their promises. He desired that the Allied Powers should send commissioners to Denmark and Norway, to see that the Treaty of Kiel was carried out to the letter.

Carl Johan had a suspicion that the rising in Norway was the result of a plan agreed upon between the Danish king and his heir. Frederik VI, however, had given up all thought of a reunion of the countries, and had nothing whatever to do with it. The commissioners of the Powers too, found that there was nothing to complain of in his attitude, as he had in vain enjoined his heir, time after time, to quit Norway. When they came to Kristiania at the end of June, 1814, far from demanding the fulfilment of the Treaty of Kiel, they approved in a great measure of what had taken place in Norway. Their demands were to the effect that the king should resign his authority, and leave the country. The Norwegian fortresses, Fredrikstad, Fredriksten and Kongsvinger were to be occupied by Swedish troops, until the Storthing had

settled the question of the union of the kingdoms. Christian Frederik expressed his willingness to resign his authority into the hands of the Storting, but required that the fortresses should be occupied with Russian, Prussian and Austrian troops, until the decision was come to. To this Carl Johan would not consent, and an appeal to arms had to be resorted to.

At the end of July, the Swedish army, under Carl Johan, crossed the southern border in several places, while a large fleet under the command of King Carl XIII menaced the coast. The Norwegian army was badly equipped, and suffered from want of everything; but its one desire was to fight for its country. It was forced to retreat continually, although at several places it fought with decided success. The fortress of Fredrikstad, however, was given up to the enemy.

At Kongsvinger, where General GAHN led the secondary attack, the most serious conflicts took place. The Swedish army was defeated by Col. KREBS in the engagements of Lier and Matrand; and at the latter place, it was broken up and driven out of the country.

When hostilities had lasted for a fortnight, Carl Johan again opened negotiations, principally upon the same basis that the commissioners of the Allied Powers had laid down. The Norwegians were to retain the constitution given at Eidsvold, with only such alterations as the union with Sweden made necessary. But Christian Frederik was immediately to abdicate the throne, call the Storting together, and leave the country. The king agreed to this, and on the 14th August, a convention with an armistice was concluded at Moss. The Norwegian army evacuated that part of the country that lies east of the Glommen, and the fortress of Fredriksten opened its gates to the Swedes.

Christian Frederik resigned his authority into the hands of the council of state, and an extraordinary Storting was summoned. Until this met, he stayed at Ladegaardsøen, just outside Kristiania, sick in mind and body. The convention at Moss had aroused grief and wrath in a large proportion of the nation, and some detachments of the army mutinied. But the excitement subsided when the council ordered a legal investigation into the conduct of the suspected officers.

On the 7th October, the first extraordinary meeting of the Storting took place. Three days later, Christian Frederik laid down his royal authority, and left the country. Carl Johan desired

that the Storthing should promise allegiance to the Swedish king, before the negotiations concerning the conditions of the union were opened; but the Storthing handed over the government of the country to the council of state, and as its number was no longer complete, it was reinforced with men who enjoyed universal esteem. The Norwegians were firm in their determination not to enter into any union with Sweden, if, in so doing, they would have to give up a particle of their constitutional liberty. They therefore desired, through the Storthing, to make their own conditions for the union; and if the Swedes would not accept them, the war should be continued.

Six commissioners came to Kristiania to negotiate with the Storthing on the king of Sweden's behalf. They brought with them a proposal for alterations in the fundamental law, drawn up at the instigation of Carl Johan. The Storthing, however, determined that the Eidsvold constitution should form the basis of the new one, and that only such alterations should be made in it as a union with Sweden demanded. The Storthing would not negotiate directly with the commissioners, but appointed a committee of 9 men, who were to receive the necessary information from them.

On the 20th October, when the end of the armistice was approaching, the Storthing resolved that Norway should be united to Sweden as an independent kingdom. Before, however, proceeding to the election of a king, unanimity was arrived at on the subject of the changes in the constitution. The amended constitution became law on the 4th November, and immediately after, Carl XIII was chosen king of Norway. On the 10th November, Carl Johan was present in the Storthing, where he took the king's oath to the constitution.

Thus, by accommodating the conditions of the union to the constitutional conditions established in Norway, by yielding to the will of the Powers, and by giving the Norwegian Storthing free choice, Carl Johan had succeeded in bringing about the union, and achieving all that could be achieved. To the European Powers, the Swedish Minister for Foreign Affairs declared on behalf of the crown-prince that the Peace of Kiel was given up. «It is not to the Treaty of Kiel», he said, «but to the confidence of the Norwegian people in us, that we owe Norway's union with Sweden.»

But there was a party in Sweden, whose real opinion found expression in the words attributed to the old king, namely, «that it was a union to weep over.»

The Norwegians, on their side, had no exaggerated confidence in the Swedish promises. As a matter of prudence, provisions touching the union were embodied in the Norwegian fundamental law; and the Act of Union, which was passed by the Storting on the 5th August, 1815, became fundamental law for Norway, without being so in Sweden. In the history of the Union, this circumstance, of which the sole intention was to secure guarantees for the Norwegian nation, has gained significance from the fact that Swedish politicians, by its means, have claimed rights for Sweden over the fundamental law of Norway.

The composition of the Norwegian government also contained a proof that Carl Johan approved in the main of all that had taken place in this country in 1814.

For the first 15 years after the union, vice-regents (statholders) of Swedish birth stood at the head of the government. The council itself was composed of men belonging to the various parties in the country. Two or three of Christian Frederik's ministers also had seats in the new ministry.

There was at first no possibility of establishing the democracy on which the constitution was based. On the contrary, the bureaucracy which had developed under the former absolute power, attained its highest level, and being of an extremely marked national character, became the constitution's best defence during the reaction that soon supervened under the pressure of the Holy Alliance.

When Norway entered upon the union with Sweden, her condition was anything but a prosperous one. Great want and poverty prevailed, and all trade was depressed. Since the great national bankruptcy in 1813, the finances of the country had been in the most grievous plight. The first ordinary Storting (1815—1816) saw no other way out of the difficulty than to depreciate still further the paper currency. In order, however, to impart a fresh firmness to money matters, the Bank of Norway was founded in Trondhjem, its paid-up capital being procured by the assessment of an extraordinary tax.

This, of course, could not but increase the depression at first, and, as a result of the growing discontent, a rising of the peasants in the Uplands took place, with the object of dissolving the Storting, and bringing in an absolute government. Some have therefore claimed to see the machinations of the royal power behind the rising, which was organised by a large farmer in Hede-

marken, named HALVOR HOEL, and was directed against the interference of public functionaries in affairs of all kinds, and their supposed extravagance in the administration of the public revenue. The rising, however, soon subsided.

In order to lighten the burdens of the people, the Norwegian army, which consisted of 33,000 men, was reduced, after 1818, to half the number; the defence of the frontier was considered unnecessary after the union.

It was the painful financial condition of the country that first endangered its independence. By the Treaty of Kiel, the king of Sweden, in his character of sovereign of the kingdom of Norway, had pledged himself to assume as large a portion of the national debt of the dissolved Dano-Norwegian monarchy, as answered to Norway's population and resources in relation to those of Denmark. From a general point of view, there could be no fault to find with such a division, even if the validity of the Treaty of Kiel could not be recognised in other respects. But the Norwegians had counter-claims upon the Danes, and Carl Johan found, moreover, that circumstances had turned out so differently from what had been foreseen in the Treaty of Kiel, that he thought the whole matter could be settled by drawing his pen through it. But the Vienna Congress had resolved that in its relations to Denmark, the Treaty of Kiel should remain in full force. The negotiations about a settlement made slow progress. The Danes complained to the Powers, and demanded that Sweden should help in paying Norway's share of the national debt; but Sweden, of course, would not hear of such a thing. In 1818 the Holy Alliance took up the matter seriously, ranging itself entirely on the side of Denmark. The princes of each of the five Powers sent an autograph note, corresponding in substance, to Carl Johan, who had ascended the throne of Norway and Sweden in 1818. In this he was required or commanded to come to a final arrangement. Carl Johan gave the princes a sharp answer in return for their officiousness, and refused to suffer any interference in a matter which exclusively concerned Denmark and Norway. He accepted, on the other hand, England's mediation, and in September, 1819, it was arranged that Norway should take upon herself 3,000,000 speciedaler (12 millions of kroner) of the debt. But both the Norwegian government and the Storting in 1821 considered that this was still too much, and that Sweden, who had concluded the Treaty of Kiel of her own accord, ought

to be responsible for whatever Norway would not pay. This attitude of the Storting nearly occasioned a fresh interference of the Powers, such as they had previously indicated. In order to avoid any such intervention, Carl Johan determined to set about military preparations; but at the same time he made a declaration to the Continent that he would manage the affair himself. The Storting had also in other ways aroused the anxiety of the foreign ambassadors in Stockholm. At the Storthings of 1815 and 1818, it had been resolved that the nobility in Norway should be abolished; but the king had refused his sanction to the measure. It was now passed for the third time. As the king had gathered a number of Swedish and Norwegian troops in camp outside Kristiania, at the time the matter was to be finally discussed, his action was regarded as a menace to the Storting and the constitution. It appears that in certain quarters plans were really being formed, whose object was nothing less than an amalgamation of the two kingdoms in accordance with the most ultra interpretation of the provisions of the Treaty of Kiel. But the storm passed over, as the Storting, influenced by the king, and on the representation of one of its members, C. M. FALSEN, who had rendered great services to the constitution at Eidsvold, approved in the main of the settlement. An understanding having been come to between the king and the Norwegian people, the law abolishing the nobility was sanctioned.

This collision, however, only opened the way for fresh antagonism between the Storting and the king.

A few days after the question of the debt was settled, Carl Johan despatched a note, in which, referring to the plans for amalgamation, he declared that he would never agree to them. On the other hand, he wished to propose a series of constitutional changes, which were to remove from the Norwegian constitution all that was at variance with the monarchical form of government. The changes he thus proposed were 13 in number. The most important were absolute veto, the king's right to appoint presidents and vice-presidents in the Storting and its sections, to dissolve the Storting after a three months' session and call for a new election, and to dismiss without legal form any public officer except a judge. Moreover, various public officers in high authority were to take their seats, as a matter of course, in the «Rigsret» (the supreme court for political offences) and a new hereditary nobility was to be founded. Certain changes in the constitution which the

above-mentioned C. M. Falsen proposed were in the same spirit. But the Storting of 1824 put aside unanimously and without debate all the constitution proposals, both royal and private. The king repeated his proposal at the following assemblies. They were discussed, for the last time, in 1839, the result being the same as before.

The Norwegians' observance of the 17th May as Constitution Day is also closely connected with the opposition that was raised against the attempt to remould the existing constitution. This day was first observed in Trondhjem, and after 1824 in Kristiania too, and gradually the whole country followed their lead. At first, as it was known that Carl Johan objected to its observance, it was limited to private arrangements; but in 1827, it was said that Count SANDELS, the statholder of the country, had succeeded in showing the king that his prejudice against the day was groundless, and that the king had yielded to the wishes of the people. The 17th May, 1827, was consequently celebrated in a very marked manner. On the 4th November of the same year, some young men hissed a Swedish company at the theatre, who were performing some wretched stuff called «The Union» or «The Festival of Peace». This foolish trick was put before the king in such a bad light, that for a time he believed that a rebellion had broken out. He thought that Sandels was not equal to his duties, and had him replaced by Count PLATEN, a good and upright man, but a one-sided and narrow-minded politician. Hitherto, however, he had always shown himself to be a friend to the Norwegians. In 1828, Carl Johan succeeded, by a royal command, in preventing the Norwegians from celebrating Constitution Day. An extraordinary Storting was summoned principally to receive notification of this matter; and in order to give the king's representations due emphasis, troops were encamped near Kristiania, and Swedish regiments stood, ready to march, upon the border. But the year following, great crowds gathered in the Kristiania market-place. Curiosity and the extraordinary preparations that had been made by civil and military functionaries, drew the people together, and they were dispersed and driven to their homes with sword and musket («the Market Battle»). From that time, the day was celebrated with rising enthusiasm as a national festival, and Carl Johan had to put up with it, although he did not change his opinion. Count Platen died not long after the Market Battle, and the feeling aroused by the events in connection with this, made it unadvisable to fill his

place with any Swede. The post therefore remained vacant for seven years.

The radical changes which the July revolution brought about, made themselves also felt throughout Norwegian society, as the broader strata of the nation now began to take part in the political life and the social and national development. This transition time is generally called in Norwegian history, the «Norwegianism Period». With regard to intellectual life, efforts were made to escape from the Danish influence in language and literature acquired in the days of fellowship. In politics, the public officers, who had hitherto been the constitution's best defence, were looked upon as wandering spirits from the old time of absolute government, while the peasants and those who joined them, were the only true patriots. The peasantry were also now beginning to understand that the constitution had placed the greatest influence upon the affairs of the country in their hands; and the Storthing of 1833 was the first «Peasant Storthing». The peasant Storthings-men, who at first distinguished themselves chiefly by their great parsimoniousness in the administration of the public revenue, found a leader in OLE GABRIEL UELAND, a west-country man. He was an unusually clever, able, and influential politician, and was a member of every Storthing from 1833 to 1869.

Carl Johan would have liked the peasants in this way to have gained the upper hand in the Storthing, as he hoped that they would be more willing to agree to his proposed alterations in the constitution than the civil officers had been. But it soon appeared that in this respect he was mistaken. The tension between the kingly power and the legislature reached its height in the Storthing of 1836, when the royal constitution-proposals were laid on one side without passing through committee, and various steps towards greater independence were taken. It was pretended that the attitude of the Storthing attracted the attention of the diplomacy in Stockholm, and that the Russian government urged upon Carl Johan the desirability, under these circumstances, of dissolving the Storthing. LØVENSKIOLD, one of the cabinet ministers, who had been informed of the pretended Russian demand, alone advised the king to dissolve the Storthing, while the other members of the council dissuaded him from taking such a step. The Storthing was then sent home precipitately. At the last moment the Odelsting (one section of the Storthing) impeached Løvenskiold, and he was sentenced to

a fine of 4000 rixdollars (16,000 kroner), but retained his post. COLLETT, on the other hand, was dismissed, the king laying the blame of Løvenskiold's sentence upon his passiveness towards the Storting; and unity was brought about in the government by the appointment of Count Wedel-Jarlsberg as statholder of Norway. From this time, however, there was a steady, sincere drawing-together of the king and the people; and whereas Carl Johan in his later years was disliked by the Swedes, the Norwegians regarded him with increasing veneration and devotion.

This turning-point is marked by the extraordinary Storting of 1836—37, and its address, in which various desires are expressed relative to the placing of Norway on an equality with Sweden, in accordance with what had been resolved on the occasion of the union of the kingdoms in 1814, and unequivocally expressed in subsequent negotiations with the foreign Powers. These desires were on the subject of the naval flag, the arms of the kingdom, the treatment of diplomatic matters, and the representation of the kingdoms at foreign courts.

For several years Norway had to be content with exceedingly unsatisfactory signs of the equality of the kingdoms. When the union was entered upon, it was resolved that Norway should have her own merchant flag, and that the naval flag was to be a union-flag. But the merchant flag was in reality nothing more than the Danish one, although the Norwegian arms were introduced into the upper corner next the pole. On the other side of Cape Finisterre, this flag could not be used, and Norwegian vessels had to sail under the Swedish flag, as the Norwegian state, on account of the hardness of the times, could not afford to pay tribute to the pirates who infested the Mediterranean. The form of the naval flag was still less satisfactory to the national feeling. It was simply the Swedish flag, except that the upper square next the pole was a white St. Andrew's cross on a red ground. After 1818, Norwegians had been allowed to carry this flag in distant seas, instead of the Swedish one.

In 1821, the Odelsting and Lagthing resolved unanimously that henceforward the Norwegian flag should be scarlet, divided into four by a dark blue cross with white borders. The king refused his sanction to this measure, but, by royal letter, gave permission for the use of the proposed flag on nearer waters, while beyond Cape Finisterre, the naval flag only was to be carried.

When all danger from the piratical states had ceased with the conquest of Algiers in 1830, the Storting, in 1836, claimed that a constitutionally originated merchant flag should receive universal recognition, and that the colours and marks on the union-flag should indicate more fully and clearly Norway's equality with Sweden in the union. A motion was simultaneously brought in to legalise the Norwegian flag of 1821. The sudden dissolution of the Storting, however, prevented this matter from coming under discussion, while in the year following, it was laid before the king in the above-mentioned address, as a general wish of the people. In reply to this, the king, in 1838, conceded to Norwegian merchant-ships the right of using the national merchant-flag in all waters. This arrangement, although it was greeted with universal rejoicing, was not final, as the national flag was not fully recognised by the state, its use being only optional in addition to the naval flag. Concerning this, in the main Swedish, flag, it was declared in the address, that «the nation saw in it an ignoring of Norway's legitimate claims, that was mortifying to their national feelings».

With regard to the protection of Norwegian interests in the discussion of diplomatic affairs, a change was made. The Norwegians had hitherto had no influence here, but by a royal decree of the 13th April, 1835, it was ordained that when the Swedish minister for foreign affairs brought forward matters touching the relations of the united kingdoms or of Norway with foreign powers, the Norwegian prime minister, or some other member of the cabinet, should be present. It was declared in the address of 1837, that in this resolution, the nation would see an initiatory step towards an arrangement whereby matters touching Norway's relations with foreign countries could be attended to in a proper and satisfactory manner.

On the 30th January, 1839, Carl Johan appointed a committee consisting of 4 Norwegians and 4 Swedes, who were to consider the union questions that had been raised by the Storting's address of 1837. While this first union-committee was sitting, the question of a complete re-making of the Act of Union was raised by the Stockholm section of the Norwegian council. At first this proposal did not meet with the approval of the government; but the powers of the committee were extended to undertake a comprehensive revision of this kind. Before the committee had ended their labours, Carl Johan died (8th March, 1844), and his suc-

cessor, OSCAR I, hastened to comply with several of the wishes expressed by the Norwegians. He immediately decided, for instance, that Norway's name should stand first in all documents concerning the internal government of that kingdom. After allowing the union-committee to lay before him their opinion concerning the Norwegian arms and union-flag, he resolved, on the 20th June, 1844, that both Norway and Sweden should have their national flag as naval flag, with the badge of union next the pole. At the same time it was decided that the merchant-flag of both kingdoms should bear the badge of union, and that only ships sailing under this flag could claim the protection of the state. The arms of Norway were immediately after altered by the substitution of an axe for the halberd held by the lion. No further results appeared from the labours of the first union-committee. It did, indeed, at last bring forward a plan for a new Act of Union, and the Norwegian government gave their opinion upon it; but both were put on one side by the Swedish government.

Both the latter years of Carl Johan's reign, and the whole of King Oscar's reign are marked by the carrying out of important legislative work, and reforms in the municipal self-government, in intellectual freedom, in means of communication, and in trade. The conditions of the people especially were considerably improved in Oscar I's time by quiet, but hard work, which was still further aided by a peaceful policy. The united kingdoms escaped being mixed up in the European wars, although it was once or twice difficult to keep out of them, e.g. in the Holstein rebellion in 1848—51, and the Crimean War (1854—56). On the other hand, the country was not unmoved by the great financial crises that passed over Europe after the February revolution and the Crimean War. In connection with the former of these, there was an agitation of a socialistic character got up among workmen, which caused some uneasiness, but was quelled by the imprisonment and conviction of the leaders. It acquired its greatest significance from the fact that it drove in the first wedge between the peasant groups, and caused a division which was most prominent in the latter part of King Oscar's reign. The bureaucratic party who had joined the king, now found a support in the large farmers of the east country, the latter being opposed to the representatives of the small farmers who lived mostly in the west. These were joined by a liberal fraction, nick-named the "lawyer-party", and led by JOHAN SVERDRUP.

In the latter part of King Oscar I's reign, two union-commissions were appointed. One of these drew up a scheme for a new law concerning the mutual trade and navigation of the two kingdoms, which was to take the place of an older one made in 1827. The other commission brought in a bill for the execution of judicial sentences in both kingdoms. These bills were passed by the states of the kingdom of Sweden, while the Storthing rejected them as unsuitable for Norway. This roused Sweden's ire, and in November, 1859, the old Count Anckarsvärd, who had hitherto been supposed to be a friend of the Norwegians, contended in the upper house for a revision of the Act of Union. The basis of this revision was to be the Treaty of Kiel!

It soon appeared that the old Count was really the exponent of a political opinion that was widely spread in Sweden.

King Oscar I died on the 8th July, 1859, and his successor CARL — in Norway, IV, in Sweden, XV — had determined to commence his rule by complying with a wish that the Norwegians had long cherished. He promised privately to sanction a decision regarding the abolition of the post of statholder, if a proposal concerning it were accepted by the Storthing. This was done on the 9th December, 1859, and the government — the BIRCH-MOTZFELDT-SIBBERN ministry — recommended the sanction of the measure. But on learning the determination of the Storthing, the Swedish Riksdag declared that the post of statholder was a condition of the Union, that had come into the Norwegian constitution through the negotiations between the Storthing and the Swedish commissioners in 1814, and could not therefore be abolished without the consent of the Swedish states. A sharp correspondence on the subject ensued, and the Swedish government subscribed to the opinions expressed in the Riksdag. As a consequence of this, the king refused to sanction the resolution in the Norwegian council. But the manner in which the matter was settled gave occasion for an exchange of opinions between the Norwegian and the Swedish councils. When the Storthing was informed of the refusal, they passed an address, in which they maintained Norway's sole right over her constitution, and firmly protested against the assertion of the Swedish states that the resolution concerning the abolition of the post of statholder, should be treated as a matter that had something to do with Sweden. Finally, the Storthing expressly declared that a revision of the union provisions could not be made from

the Norwegian side, except on the basis given in the Act of Union, namely, the equal rights of the two kingdoms, and the independent power of each kingdom in all matters that are not union matters.»

The following year (9th April, 1861) the Swedish council demanded a revision of the Act of Union, based upon the founding of a union parliament, made up according to the population, so that there would be two Swedes to every Norwegian. In accordance with this, there should be an extension of the duties of the composite council. In the report made by the Norwegian government, some expressions occurred which were supposed to be embarrassing for some of the members of the Swedish council, and as a consequence, the Norwegian council was broken up. But in reality, the reconstructed government agreed with the retiring one in thinking that for the present no revision of the Act of Union was to be recommended, as it appeared that Sweden's attitude towards Norway was the very same that the Swedish Riksdag and government had manifested in 1859 and 1860. In consequence of this, the matter was to be allowed to rest for the time being. The king however, expressed a wish, as far as he was himself personally concerned, that there might be a revision; but this must be based upon the perfect equality of the two kingdoms.

When the Storthing had consented to the appointment of a union committee for the purpose of revising the Act of Union, King Carl appointed one in 1865, which, in the autumn of 1867, laid before the public the fruit of its labours. This was a bill containing as many as 71 paragraphs. It was approved of in all essentials by the government, and was brought before the Storthing of 1868—69 for discussion in 1871. It was rejected both by the Storthing (by 92 votes against 17) and the Swedish Riksdag.

Radical changes in Norway's internal political condition were now at hand. The Storthing of 1859—60 had agreed on an alteration in the constitution, consisting in an increase of the number of rural-district representatives from 61 to 74; while there should be a corresponding reduction in the number of town members (37 as against 50 formerly). In consequence of this, the liberal party, which had been weakened the year before, regained strength. In 1869, on a motion of the government, it was resolved that after 1871, the Storthing should meet every year instead of every third year, as it had formerly done. The next reform to be effected, related to the council. Ever since 1821, efforts

had been made to pass a constitutional measure that would give the ministers the opportunity of taking part in the Storthing's proceedings. FREDERIK STANG, the leading man in the government, had once been its chief advocate; but after entering the ministry that succeeded the Birch-Motzfeldt-Sibbern ministry in 1861, he changed his opinion, and had become an enemy to reforms. When a private bill, brought forward in 1869, was passed by the Storthing in 1872, it was refused sanction. Some of the members of the council who had advised its ratification, retired, among them Dr. O. J. BROCH. In the government's refusal of sanction in connection with various other steps, the Storthing saw an ill-timed assertion of authority. A great commotion ensued, and on the 13th May, 1872, a vote of want of confidence in the council was passed, of which the king, however, took no notice.

While matters were in this condition, King Carl died (September, 1872), and his brother OSCAR II ascended the throne. In 1873 the post of statholder was abolished, pursuant to the resolution of the Storthing in the matter, and the office of minister of state established in Kristiania. Frederik Stang was appointed to this post. A royal proposition concerning the state council matter was brought before the Storthing in 1874, in which various guarantees were demanded, such as the right of dissolution, the fixing of the time for the sitting of the Storthing and the allowance to the members, and a pensioning law for retired ministers. But the same year, the Storthing passed their former resolution, which, however, on account of the changes that had taken place in 1873, was not altogether identical with that drawn up in 1872. But both in 1874 and 1877, sanction was refused to the Storthing's resolution, while the motion of the government in the last-named year was rejected unanimously.

The struggle between the government and the Storthing was still further stimulated by the state council affair having become a contention about the royal veto in constitutional matters. While the majority in the Storthing maintained that in such matters the king had either no veto, or at most a suspensive veto as in ordinary legal provisions, the government and its followers held that in such cases he must have an absolute veto. In accordance with this, the royal sanction was refused, when, in 1880, the Storthing passed for the third — really the fourth — time their former resolution as to the admission of ministers to the proceedings of the

assembly. Only one of the members of the council, the minister for the navy, J. L. JOHANSEN, advised sanction. When the Storting was informed of the refusal of the sanction, it voted, on the 9th June, that the resolution should nevertheless «come into force and be inviolably observed as a fundamental law of the kingdom of Norway.» The resolution was again sent up to the government, with a request that it might be made known in the manner prescribed for the notification of constitutional measures. But the government refused to notify it. In the autumn of 1880, Fr. Stang was replaced as prime minister by CHRISTIAN AUGUST SELMER; but the struggle was continued, and during the period that followed, several fresh matters for dispute arose. In 1882, the government refused to comply with a vote to the National Rifle Associations (volunteer sharp-shooter corps of a democratic stamp), and when, not long after, the Storting resolved that a central board should be established for the government railways, and added the clause that two of its members should be chosen by the Storting, the government only complied with the first part of the resolution, but not with the last, as it was considered to be at variance with the king's right to appoint public officers.

When the Storting was dissolved in 1882, sharp attacks were directed, in the speech from the throne, against its attitude, and «all enlightened and patriotic men» were called upon to support the view of the constitutional questions that the government had tried to urge. The participation in the elections in the autumn was greater than ever, and the parties had never opposed one another so sharply as in the assembly of 1883. While the partisans of the government were only 32 in number, the opposition numbered 82 men, and occupied all the places in the Lagthing (one section of the Storting, which together with «Høistret» forms the Supreme Court for political offences). On the 24th April, 1883, after violent debates at 18 sittings, the Odels-thing decided that the entire government should be impeached for having been the cause of the royal resolutions by which sanction was refused to the resolution in the matter of the council, to the vote to the National Rifle Associations, and in a measure to the resolution relating to the central management of the railways. In 1884, the «Rigsret», which sat for more than 10 months, sentenced the state ministers SELMER and KJERULF and six of the councillors to be deprived of their posts; while three who had

either recommended the sanction in the council affair, or had entered the government after the matter was settled, were heavily fined.

A new ministry was now formed, the SCHWEIGAARD-LØVENSKIOLD, or the «April» ministry. It was an attempt to adopt the policy of the previous government in a moderate form; but from the very first it met with such decided opposition, that it sent in its resignation no later than May. An attempt was made to form a new government with the former minister, Professor O. J. BROCH as leader; but this did not succeed, from want of sympathy among the minority. The only way to end the strife was for the king to take a ministry in accordance with the majority in the Storting.

On the 26th June, the SVERDRUP-RICHTER ministry was appointed, consisting largely of eminent Storting's men. The Storting now passed a new bill on the council matter drawn up in slightly altered terms, which also provided that retired ministers could be elected for the Storting outside the district in which they lived. This resolution was immediately sanctioned, and the vote to the National Rifle Associations, and the Storting's resolution relating to the central management of the railways, were acceded to. During the time that followed, the Sverdrup-Richter ministry succeeded in carrying out a series of important reforms, such as the Conscription Act (1885), and the new military organisation, based on this Act (1887), and by a law of the 1st July, 1887, the introduction of the jury was passed. On the other hand, a bill for congregations and congregational councils, brought in by JACOB SVERDRUP, and intended to give parishioners greater influence in church matters, met with strong opposition; and after being rejected by the Storting, it resulted in the breaking up of the ministry, and a consequent disorganisation of the liberal majority. The ministry was indeed reconstructed in such a manner as to give it internal strength, but its prestige was weakened, notwithstanding that the liberal groups in the great questions of the carrying out of the jury law, and the organisation of public instruction, could still stand together. When a vote of want of confidence was brought forward by the conservative party in June, 1889, the Sverdrup ministry gave way to a conservative ministry on the 12th July, 1889, formed by EMIL STANG, barrister, and called the first STANG-GRAM ministry.

By moderation and caution, this ministry, which consisted of men with a good reputation from former Storting achievements, or for administrative activity, succeeded in gaining great influence

and in passing various important bills. But they soon ran upon a sunken rock, which had once proved fatal to the Sverdrup ministry.

By a royal resolution of the 13th April, 1835, it had been ordained that the Norwegian minister of state (in Stockholm), or if he should be prevented, another member of the Norwegian council, should be present when Norwegian, or Norwegian and Swedish diplomatic matters were brought forward by the minister for foreign affairs. Unassuring and unsatisfactory though this arrangement was, it remained in force for 50 years.

By a change made in the Swedish constitution in 1835, the ministerial council in which diplomatic matters were brought forward, came to consist of the Swedish minister for foreign affairs and two other ministers, and of the Norwegian minister of state or his deputy. In order to remedy this glaring disproportion, the king proposed to determine the composition of the council by an additional article in the Act of Union. The representatives of the Norwegian council in Stockholm, Richter and Jacob Sverdrup, proposed that three members of the cabinet of each kingdom should have seats in the ministerial council, and that this decision ought to be embodied both in the Act of Union and in the constitution of both kingdoms. The Swedish council agreed to this, but it assumed in its declaration, that the minister for foreign affairs must continue as before to be Swedish. With reference to the proposition of the representatives, the king thereupon resolved in the Norwegian council, that the Norwegian government should submit proposals for a constitutional provision that in diplomatic affairs the king should «come to a decision after having heard the representatives of the Norwegian council who are present.»

During the debate to which the communication of the royal injunction on the 9th June, 1835, gave rise in the Storting, Sverdrup let fall a remark which was taken to mean that Norway should embody the provision concerning the ministerial council in her fundamental law, whether the Swedes would embody it in the Act of Union or not. The Swedish government then conceived the suspicion that the Norwegians wanted to go their own way, and they demanded that the law to be passed should use the expressions that had been approved of previously in the composite council. In consequence of this, the matter was put on one side, but during its discussion in the Storting of 1836, the majority, at the pro-

posal of President STEEN, expressed themselves in favour of the standpoint held by the government during the debates.

At the instigation of the king, these proceedings were resumed at the beginning of 1891, and the Stang ministry succeeded in coming to an agreement with the Swedish government as to the bringing in of a measure by which the Norwegians would obtain in the main all that the Storthing of 1886 had demanded, and the question of the nationality of the minister for foreign affairs was left for future discussion. But the proposal was rejected by the Riksdag, and in a sitting on the 21st February, 1891, the Storthing insisted on «Norway's right, as an independent kingdom, to full equality in the union, and therewith her right to watch over her foreign affairs in a constitutionally satisfactory manner.» It also expressed its conviction that the Norwegian people would never approve of an arrangement which might be a hindrance to the attainment of Norway's entire right in this matter.

The same day that this course was adopted, the Stang-Gram ministry resigned. On the 6th March, 1891, a liberal ministry, the STEEN-BLEHR ministry, came into office. The provision in the constitution, that the king could install the crown-prince, or the crown-prince's eldest son as vice-roy in Norway, was repealed by the Storthing in 1891, and the resolution was sanctioned. The special features in the programme of the new ministry were a separate ministry for foreign affairs.

After the Storthing in 1891 had made investigations preparatory to the establishment of a Norwegian consular service, and a committee appointed by the government had recommended the matter, it was determined on the 10th June, 1892, to establish it in accordance with a plan brought forward by the Department of the Interior. But the king refused to sanction the resolution, and the government sent in their resignation in consequence. It appeared, however, that it was impossible for the king, in the existing state of affairs, to form a new cabinet. At the Storthing's wish, and the king's request, the Steen ministry decided to stay in for the present; but the government made it a condition that the consular matter should be brought in again next year, and discussed in Norwegian council. It appeared, however, that the king did not change his view of the resolution of the 10th June, and the STEEN ministry therefore once more sent in their resignation on the 22nd April, 1893, and it was now accepted.

A new ministry was now formed by the former ministers STANG and GRAM, and came into office on the 2nd May. In doing so, they made a declaration to the effect that it was «in order to avert the danger which would arise if the king were left without counsellors, and the country without a government»; and they promised that they would do their best to promote that co-operation between the powers in the state, which the constitution assumes. But the ministry met with distrust on the part of the Storthing. The latter resolved that the community in consular service existing between the two countries should be dissolved from the 1st January, 1895; and Norway's contribution to the consular funds was only voted on condition that Sweden was informed of the resolution. At the same time the Storthing took the first steps towards establishing a Norwegian consular service. But the king refused to acquiesce in the Storthing's resolutions concerning the consular service, and Norway's contribution to the consular funds was taken from the surplus of other public revenues. The struggle between the government and the Storthing was now continued. The following year, the Storthing voted Norway's share of the diplomatic budget, but demanded, as a condition, that the legation in Vienna should be done away with as far as Norway was concerned. Moreover, the grant to the common consular budget was only voted for the second half of 1894, as it had been resolved that after the 1st January, 1895, Norway should have her own consular service. The Stang ministry protested against both resolutions, the form of which was looked upon as a violation of the union. Towards the end of the autumn, the Swedish treasury undertook to advance what Norway should furnish towards the diplomatic budget.

On coming into office, the Stang ministry had declared that they would give the nation the opportunity of expressing its opinion on the subject of the questions at issue through the elections, which were to take place in the autumn of 1894. Here the liberals kept the majority in the assembly, but the conservatives and the moderate party were not far behind them in numbers. Before the Storthing of 1895 was opened, the ministry sent in their resignation; but as there was a difficulty in forming a new one, it was a long time before it was accepted. On the 7th June, it was agreed that under a government that co-operated with the Storthing, there would be an attempt to set on foot negotiations between the united kingdoms as to the arrangement of the consular service and the manage-

ment of foreign affairs. After many fruitless endeavours, a coalition ministry was formed upon this basis, composed of men of all three parties, under the leadership of HÅGEBUP and GRAM. On the 13th November, 1895, the third union-committee was appointed, and completed its labours in January, 1898; but Norwegians and Swedes had not come to an agreement upon the subject of a mutual adjustment. While the union-committee was sitting, the union disputes had lain in abeyance, and the diplomatic and consular supplies were voted unconditionally. On the other hand the efforts to authorise the Norwegian flag of 1821 were continued by the liberal party. These had been begun in 1879, but had been dropped for the time. When the bill had come before all the Storthings since 1893, it became law in 1898, after being passed three times, without the king's sanction.

Since the 17th February, 1898, the government has been carried on by the second STEEN-BLEHR ministry.

BIBLIOGRAPHY.

- RUDOLF KEYSER. *Norges Historie. I. II.* Kristiania. 1865—70 (till 1387).
 P. A. MUNCH. *Det norske Folks Historie.* 8 Vol. Kristiania. 1852—63 (til 1397).
 J. E. SARS. *Udsigt over det norske Folks Historie.* I—IV. Kristiania. 1873—91 (till 1814).
 O. A. ØVERLAND. *Illustreret Norges Historie.* 1—V. 3. Kristiania. 1865—95 (till 1814).
 YNGVAR NIELSEN. *Bidrag til Norges Historie i 1814. I. II.* Kristiania. 1882—85.
 1. *Aktstykker vedkommende Stormagternes Mission til Kjøbenhavn og Christiania i Aaret 1814.* Kristiania. 1895.
 2. *Aktstykker vedkommende Konventionen i Moss 14de August 1814.* Kristiania. 1894.
 3. *1814. Det første ordentlige Storting. Optegnelser og Aktstykker.* Kristiania. 1882.
 4. *Norges Historie efter 1814. I—III.* Kristiania. 1882—91 (from 1814 till 1837).
 J. E. SARS. *Norges politiske Historie 1815—85* (in course of publication).

The Historical Society of Norway (Den norske historiske Forening), founded in 1869, publishes a Historical Review (Historisk Tidsskrift), and memoirs illustrating the history of the country. Since 1857, a series of original historical writings has been published at the expense of the so-called «Kildeskriftfond».

INTERNATIONAL POSITION

IN the middle ages Norway formed a consolidated kingdom under a Norwegian Royal house, and had no particular relations with the neighbouring countries. After 1319, dynastic circumstances brought about unions, sometimes between Norway and Sweden or Norway and Denmark, or, at other times, between the three countries. As the Norwegian constitution then was far more strictly monarchical and centralised than the Danish and Swedish, it followed that Norway, which had also the smallest population, and was therefore the weakest of the three countries as regards the maintenance of its own interests, could be administered — although by no means satisfactorily — by the king, who generally resided in Denmark. At the time of the reformation, after Sweden had finally withdrawn from the union, this state of affairs — which could not but obscure to some extent the international equality — acquired a more decided character; but in spite of the one-sided promise of a Danish king to the effect that Norway should be «a branch of the realm of Denmark», it did not go so far as to rob the country of its character as a separate kingdom. On the contrary, the Norwegian constitution continued to differ from that of Denmark by the greater power it granted to the king. Moreover, it is worthy of special remark, that although the Norwegian Senate («Rigsraad») was dissolved and certain governmental matters thus came into the hands of the Danish Senate, Norway was nevertheless repeatedly represented by her own national assembly of deputies, which was in a position of constitutional equality with that of Denmark. The last of these Norwegian national assemblies, that of 1661, is especially impor-

tant in virtue of having, formally and separately on behalf of Norway, conferred upon the king the same «hereditary right and absolute sovereignty» which he had some months previously received in Denmark in a less solemn manner, — that is to say, without the deputies having been called together.

The absolute monarchy thus established, — abolishing as it did the Danish Senate —, reintroduced, as far as the constitution was concerned, complete equality between the two united kingdoms, which from that time were governed with equal absoluteness and directness by the sovereign through his institutions and office-bearers. The general view, whether official, theoretical or popular, tended therefore to regard the two countries as «twin kingdoms.» Nor had the Norwegians any personal reason to complain of being passed over in favour of the Danes. The highest government posts in both kingdoms were open to them. Thus the post of minister of foreign affairs, established about the middle of the 18th century, was filled in part by men who were Norwegians by birth. It is also of fundamental and obvious significance, that since 1641, Norway has possessed her own nationally organised army, which, during the perpetual wars with Sweden, was constantly proving its ability to withstand and repulse hostile invasions.

In international negotiations too, Norway's equality with Denmark became often apparent in a manner which could not be mistaken. Not only was Norway mentioned as a separate kingdom apart from Denmark in the king's title, while expressions such as «the two kingdoms» &c. were frequently employed in the treaties concluded by the king, but also, when there was special occasion for it, Norway still made her appearance as a separate State. The frontier treaty of 1751 with Sweden, in which the «kingdom of Norway» appears and covenants with full outward sovereignty, Denmark being only mentioned in the royal title, is especially illustrative of this.

On the other hand, it was inevitable that the sovereign's absolute power in constitutional and international, as also in all other relations, should have a strongly centralising effect. In conjunction with the virtual superiority which Denmark acquired from the fact that the king's court and place of residence were at Copenhagen, which thus became the seat of the government, this circumstance exerted no inconsiderable influence on the formation

of an opinion which was gradually beginning to regard the Dano-Norwegian king's united «monarchy», with its Danish, Norwegian and German possessions, as a species of consolidated state, in which the several component parts, although equal in position, were yet in danger of losing their self-dependence. This view, more summary than correct, was more especially salient — particularly in the latter half of the 18th century — in international and diplomatic language, where references to either country were now often made in such terms as «His Danish Majesty's States», «the Cabinet in Copenhagen», as well as other similar and sometimes even more definite terms of unity.

Such expressions, however, had little constitutional significance. Although to some extent obscured by the ideas of a federated state, the character of Denmark and Norway as separate kingdoms, latent in some matters, yet continued to exist, and only awaited an opportunity of reasserting itself in external affairs also.

This opportunity was afforded by the protracted wars of 1807—1814, during which the maritime communication between the two countries was more or less interrupted. The government of Norway, on this account, had to be left largely in the hands of the several authorities of the kingdom, over whom were placed princes of the royal blood and finally the Heir Apparent himself, while various other means were adopted to favour the growing national feeling.

In the mean time the events of war, resulting, as far as Sweden was concerned, in the loss of Finland, had also given a different character to Swedish aspirations. Not only was this loss a fresh reminder of the importance of not having to defend two frontiers at the same time, but it had given a clearer perception of the manifold advantages in the insular situation of the Scandinavian peninsula as the basis of a policy of neutrality, restricted to its common defence, but in other respects independent of European complications. During the years immediately ensuing, Sweden sought to avail herself of the supervening situation by securing for herself, in some form or other, a connection with Norway.

After preliminary negotiations towards this end with the Allied Powers the Swedish crown-prince, CARL JOHAN, by the treaty of peace with Denmark, concluded at Kiel, January 14, 1814, compelled the Dano-Norwegian king's cession of Norway «in fa-

vour,» the words ran, «of His Majesty the king of Sweden and his successors», so that the provinces of Norway should «henceforth belong with full right of ownership and sovereignty to His Majesty the king of Sweden, and form one kingdom, united to that of Sweden.»

On the other hand the original Swedish draft of the treaty, which had for its object the incorporation of Norway with Sweden, was abandoned, and it was also expressly in his special character as *sovereign of Norway*, that the king of Sweden took upon himself Norway's share in the common national debt of the now dissolved Dano-Norwegian monarchy. Norway's international individuality was consequently made use of even in the treaty of cession.

The Norwegians nevertheless refused absolutely to acknowledge the treaty. They declared that the king of Denmark and Norway might, indeed, renounce his right to the Norwegian crown, and thereby break off all connection between the two countries, but that it was contrary to international law to dispose of an entire kingdom without the consent of that kingdom itself. In pursuance of this, a national assembly was called together, and on the 17th of May 1814 this assembly gave the country a constitution, and proclaimed CHRISTIAN FREDERIK, the heir to the Dano-Norwegian crown and at the time regent of the country, to be king of Norway.

This attitude, which was greatly at variance with the policy of Sweden, provoked a brief and not very sanguinary war, which, in August 1814, was brought to a conclusion by an armistice through the assiduous mediation of diplomatists from the four allied Powers. With a wise consideration for the strained condition of European politics, the Swedish crown-prince agreed in his king's name to accept the newly-created Norwegian constitution, with a reservation of those changes which a union with Sweden might necessitate, regarding which negotiations were to be opened with the Norwegian Storting. The latter, in other words, was recognised as the lawful representative of the country. On the other hand, her newly-proclaimed king was called upon immediately to resign his authority, the government in the meantime being carried on by the Norwegian Council of State, and, as soon as the national assembly met, to place the power finally in its hands.

It was supposed in Swedish quarters that the Storting called together in October would immediately take steps to recognise the king of Sweden as king of Norway. The Storting, however, took the opposite course. It resolved, indeed, provisionally on the 20th of October, that Norway should be united to Sweden on certain conditions; but on the other hand, it deferred its acceptance of King CHRISTIAN FREDERIK'S abdication until, by means of negotiations with the commissioners appointed by the Swedish king, an agreement had been come to as to the changes necessary in the constitution in connection with the proposed union. Not until these had been effected did the Storting formally accept King CHRISTIAN FREDERIK'S abdication, and on the 4th of November, 1814, they elected CARL XIII of Sweden, to be king of Norway.

On the 10th of the same month, the union thus formed was proclaimed in the Storting by the crown-prince, CARL JOHAN, in person, on behalf of King CARL XIII, in terms that intimated that the new king based his rights upon the spontaneous and unanimous choice of the Norwegian people, and not upon any previous treaties, in which the Norwegians themselves had had no part. Especially with regard to the treaty of Kiel Sweden upheld that since Denmark had not been able to fulfil her share in it, and Sweden in consequence had been forced to wage war anew, and make arrangements with Norway upon another basis, it was not to the stipulations in the said treaty that the union of the two kingdoms owed its existence, but to the confidence of the Norwegian people. In accordance with this view, Sweden refused to fulfil another of the provisions of the treaty of Kiel in conformity with which Swedish Pomerania was to be ceded to Denmark. On the contrary Sweden made over her Pomeranian dependency to Prussia, in return for a large sum of money; and the king of Denmark had to content himself with receiving from that power, as compensation, the small duchy of Lauenburg, north of the Elbe. Sweden was thus instrumental, as far as she herself was concerned, in adducing practical proof of the nullification of the treaty of Kiel.

The further conditions of the union between the two countries were laid down in an Act of Union, the so-called *Rigsakt*, passed in 1815 by the respective representatives of the two kingdoms. In its introduction it reiterated that the union was brought

about «not by force of arms, but of free will,» and in the same year, the king in his communication to the Swedish Diet concerning the union, and the Diet itself still more in its reply, expressed themselves with great clearness in similar terms.

The main points in the union, which had been brought about through this chain of events and through documents, based upon a voluntary agreement, are as follows:

According to the first paragraph of her own Constitution and of the Act of Union, Norway is «*a free, independent, indivisible and inalienable kingdom, united with Sweden under one king.*»

In case of the king's absence, illness or minority it is provided that the country be ruled, until the national assembly shall have arranged otherwise, by the next heir to the throne, or by a provisional government, composed of *an equal number of members from each kingdom*. Should the royal dynasty become extinct, a new one shall be chosen by the Norwegian Storting and the Swedish Riksdag, or if these cannot agree, by a committee composed of *an equal number of Norwegians and Swedes*.

The king shall be crowned in each kingdom separately, and he is bound to reside for «some time» each year in Norway.

The constitutions of the two countries, each of which rests upon *its own fundamental laws, differ greatly from one another* in a number of important points.

The principal point is that while *Sweden has a legislative assembly, consisting of two chambers, the Norwegian Storting is in reality a one-chamber institution*, which only divides into two sections in purely legislative matters and in cases of impeachment of the ministry. The smaller section can thus only be regarded as a revising legislative committee, furnished with certain prerogatives, and also, more especially, as a component part of the High Court of the Realm.

From the foregoing it is also clear, that *the ordinary legislation in the two countries is wholly distinct, and in principles it is, in many respects, fundamentally different*.

This is also the case in a marked degree with *the military and naval organisations of the two kingdoms*, for both army and fleet are separate for each country without any other point of contact than the king in his character of Commander-in-chief.

Lastly, all the other important state institutions of the two countries are separate in the same manner, thus:

*Ministry and government offices,
Courts of justice and
Customs and finances.*

Norwegians can therefore no more fill Swedish offices than Swedes can fill Norwegian. The home markets of the two countries are separated by customs frontiers, and each country contracts and is responsible for only her own national debt. Similarly, each kingdom has her own coat of arms and her own merchant flag. According to the Norwegian constitution, the naval flag is to be a «union flag,» and as such it bears the same mark of union as the Swedish flag. This, moreover, has hitherto usually been the case also with the merchant flags of the two countries; but by law of 1898, Norway has decreed that her merchant flag shall henceforth bear no mark of union.

The matters, which have been the subjects of discussion and deliberation in the Act of Union, are thus restricted to a small number of constitutional points, which, apart from the maintenance of the common monarchy, have reference chiefly to the relations of the kingdoms with foreign powers.

With regard to the representation of the united kingdoms abroad, the Act of Union makes no mention whatever as to the appointment of consuls. Hitherto, however, they have been appointed jointly for the two countries, this arrangement having been facilitated by the fact that in the Norwegian Constitution, consuls are excepted in the prohibition against foreigners being nominated to Norwegian offices.

To a certain extent the Act of Union affords the cabinets of the two kingdoms, at their joint-meetings, the opportunity of discussing, and also the king of deciding in matters, which concern the two countries. The resolutions connected herewith, however, have been the subject of diverse views, not only among Norwegian and Swedish officials, but also among the various political parties in both countries, especially in Norway. As it is not intended in the present statement to give any explanation of the several points, concerning which conflicting opinions prevail in the country itself, attention will be drawn only to the chief complaint which every Norwegian has to make against the present arrangement of affairs in connection with the union. The complaint is that Norway is entirely without formal and constitutionally organised influence in the administration of the foreign policy of the two kingdoms.

Notwithstanding the principle of equality upon which the union is and must be built, foreign affairs have hitherto been in charge of that member of the *Swedish* ministry, to whom the post of Minister for Foreign Affairs has been entrusted. It is this obvious slight which the Norwegian *Conservatives* desire to have removed by the organisation of a *co-partnership in the management of foreign affairs*, while the Norwegian *Liberals* as resolutely demand the establishment of an *independent Foreign Office* for Norway, urging that unity in the foreign policy of the two kingdoms will be sufficiently guaranteed by the unity in the person of the king.

The Norwegians' demand to have this *lacuna* in their constitutional law filled up in some way or other, is the more easily intelligible from the fact that in *international* respects Norway has, in spite of the union, been able to maintain her sovereignty and character as a separate kingdom among the States. As already stated, her position in this respect, even during her political connection with Denmark, was obscured rather than actually disputed; and during the years immediately following the establishment of the union with Sweden that sovereign position was also occasionally pointed out in a prominent manner. Although even the treaty of Kiel expressly declared that it was in the character of sovereign of Norway, that the king of Sweden had taken upon himself a share of the Dano-Norwegian national debt, both Denmark and the Powers — and to some extent, indeed, the Norwegians themselves in consideration of Norway's lack of means at that time, — sought to make Sweden co-responsible for the amount. The result of long and arduous negotiations, however, was that Norway was recognised as the *only responsible debtor*, according to international law, and as such, she took upon herself to pay a sum in proportion to her pecuniary ability. No attempt has ever subsequently been made in any quarter, to confound Norway's international legal responsibilities or liabilities with those of Sweden.

The union between the two kingdoms does, it is true, carry with it a certain solidarity as against foreign Powers, whence it follows that treaties of a strictly *political* nature must be either mutual, or at any rate simultaneous and consonant. Moreover, for practical reasons, the two kingdoms have together concluded a large number of international agreements, which, from the point of view of public law, might have been entered into without coalition.

But just as the *obligatory* partnership in treaties, whether for formal or real reasons, does not do away with the fundamental individuality of the two countries separately, but presupposes it, so also has, on the whole, the *voluntary* partnership in treaties been carried into effect in such forms and expressions, as have recognised the state sovereignty of each kingdom.

In addition to the common conventions, a series of *separate conventions* has been entered into of late years by both countries with foreign powers, among them, as regards Norway, having been several commercial treaties.

It can, in short, be shown that apart from the complicated question of the national debt in the earliest days of the union, which has already been referred to, no objection has ever been made by any foreign power to treat Norway as co-equal member of the international community of States.

BIBLIOGRAPHY.

- L. M. B. AUBERT. *La Norvège devant le droit international. (Revue de droit international et de législation comparée. 1896).*
- › *Norges folkeretslige Stilling. Udgivet ved EBBE HERTZBERG. Kristiania. 1897.*
- YNGVAR NIELSEN. *Bidrag til Norges Historie i 1814. I. II. Kristiania. 1882—1886.*
- › *Aktstykker vedkommende Stormagternes Mission til Kjøbenhavn og Christiania i Aaret 1814. Kristiania. 1897.*
- H. RYDIN. *Föreningen emellan Sverige och Norge från historisk och rättslig synpunkt betraktad. Upsala. 1863.*
- N. HÖJER. *Statsförbundet mellan Sverige och Norge. Visby. 1885.*

POLITICAL CONSTITUTION AND ADMINISTRATION

THE Norwegian constitution is founded on the law of May 17th, 1814 (see appendix). The extraordinary Storting, which met in the autumn of 1814, modified this «fundamental» law, and the revised constitution is dated November 4th, 1814.

Besides this law it is necessary to mention as sources of the constitutional law in Norway the Act of Union of August 6th, 1815, called «Rigsakten» (the Act of the Realm); the Swedish law of the succession to the throne, formally acknowledged in § 6 of the fundamental law of Norway; the act of July 18th, 1815 (on the coming of age of the king when completing his 18th year); the act of September 18th, 1815 (on the regulations for the High Court of the Realm); the act of July 7th, 1828 (on constitutional responsibility); the acts of April 21st, 1888 and of July 27th 1896 (on acquisition and loss of citizenship in Norway); the act of July 21st, 1894 (on the religious confession of the functionaries of the State); and finally the election acts of June 24th, 1828, July 1st, 1884, July 23rd, 1894, and June 5th, 1897.

According to § 112 of the fundamental law the bills purporting to modify the constitution or to make additions to it are subject to the following procedure: These bills, which can only be voted in their integrity and without amendments, must be brought in in the first session of a newly elected Storting either by the government or by a member of the Storting.

The president gives the Storting due notice of the bills, which are then published in the official journal without being subject to any vote.

The bills must be discussed and voted in one of the sessions of the following period, that is, after a new election. For the bill to become law, a majority of two thirds of the Storting in pleno is necessary.

The fundamental law being silent in this respect, there are diverging opinions upon the question whether the king's sanction is necessary for the constitutional laws; the laws that have been passed, have all been sanctioned by the king.*)

§ 112 of the fundamental law provides that modifications must never be introduced contrary to the principles and spirit of the constitution.

Norway is, according to the constitution, a free and independent kingdom, united with Sweden. The form of the government is constitutional.

In the titles of the fundamental law is found the doctrinal tripartition of the sovereignty of the people, the executive power (§ 3 and foll.), the legislative power (§ 49 and foll.), and the judicial power (§ 86 and foll.). On a closer examination of the context, where the law fixes the attributes of the king (the government) and those of the parliament, the functions of the legislature and those of the executive power are found to be far from clearly defined; and in the chapter on the judicial power, many things are omitted which might have been provided for there. The fundamental law only organises the High Court of the Realm (Rigsret, see page 183), and gives, besides, the principal features of the organisation of the Supreme Court (Høiesteret), and defines its jurisdiction, by which it is placed above all the other civil or military courts; but nothing is mentioned about the organisation of the latter, or who is to organise them. Among the general dispositions there are some which in certain respects establish the independence of the tribunals e. g. § 96, that no one can be condemned but according to a law, nor punished except by the sentence of a tribunal. But the relations of the tribunals to the executive power

* There are authors and politicians who assert that the king has no veto on the laws modifying the constitution; others accord him a suspensory veto, and others again declare that the royal veto is absolute on these laws. After the events leading to the condemnation of the ministers in 1884 (see History page 155) and after the promulgation of the law admitting ministers to parliament, the dissension about the veto on constitutional laws has been reduced to a merely theoretical difference of opinion.

and the legislature are not clearly defined; in practice, however, the Norwegian tribunals (even the lower ones) are considered competent to give judgment against laws that violate the rights guaranteed to the citizens by the constitution, or, if necessary, to award damages to individual citizens for violation of such rights.

THE KING AND THE GOVERNMENT.

At the head of the government and the central administration the Norwegian constitution places the king, whose *sacred* person, however, is legally exempt from being censured or accused.*)

All the edicts, decisions, and resolutions of the government are issued in the king's name, but the constitutional responsibility rests with the ministers.

The crown is hereditary only in the lineal and agnatic line of the royal house. If the king has no male issue the parliaments of the united kingdoms shall elect a successor to the throne according to the detailed rules in sect. 3 of the Act of Union. The proceeding is the same for the election of the regency during the king's minority. The king comes of age, when he completes his eighteenth year.

Outside the boundaries of the two united kingdoms the king cannot exercise his functions as sovereign. If he is abroad or prevented by illness the hereditary prince shall take his place, in case he has completed his eighteenth year; if not, the interim government, provided for in sect. 7 of the Act of Union, shall enter upon its functions. This government is composed of ten ministers (councillors of state) from each kingdom, the Norwegian minister of state and the Swedish one alternating in the president's chair every week. During the interim government delegated ministers are at the head of the ministerial departments.

The king is bound to pass some time in Norway every year, if serious obstacles shall not prevent him.

The ministers are called «Councillors of State» except the president of the council and the president of the section of the ministry residing at Stockholm, who are called «Ministers of State.»

*) The members of the royal family are personally responsible only to the king or to those to whom he may delegate the task of judging them.

By «Council of State» is understood the ministry, which the king chooses of his own free will, but virtually he has no more liberty in this respect in Norway than in other countries where there is parliamentary government.

The members of the council of state must be Norwegian citizens at least 30 years of age. Besides the ministers of state, the council is composed of eight councillors of state, two of whom, without portfolios, alternating each year, reside at Stockholm. The six other councillors are each, according to an arrangement approved by the king, at the head of a department of the ministry at Kristiania.

All the councillors shall be present at the ordinary and extraordinary meetings of the council of state. The minister who has charge of an affair, reports to the king only in full council. (As to the affairs subject to another treatment, see below.) All the ministers present shall express their opinion, if they do not agree with the minister in charge of the report. He who is silent is considered to have given his assent.

The minister of state residing at Kristiania (president of the council) and the six ministers with portfolios form the «Norwegian government», to which are delegated very extensive powers so long as the king is absent from Norway. This government decides, in the king's name, on the less important matters and even on those of great importance, if they are urgent. The minister of state residing at Stockholm and the two councillors without portfolios form a separate section of the Norwegian council of state, with whom the king decides on the affairs that have not been settled by the government at Kristiania.

As a general rule the minister in charge presents a report in writing to the Norwegian government, which prepares a collective report and despatches it to the secretariate of the section in Stockholm, where the king decides upon it. The members of this section shall give their opinion on the affair under the same responsibility as the members of the government at Kristiania.

No Norwegian matter may be resolved upon by the king without the advice of the Norwegian government, unless the urgency of the affair demands a prompt decision. The section of the Norwegian council of state residing at Stockholm is in a constitutional sense considered as a complete council of state when the king is outside the boundaries of Norway.

During the sojourn of the king in Norway the minister in charge submits his report directly to the king at a meeting of the whole cabinet, as the Norwegian ministers residing at Stockholm accompany the king to Kristiania. The minutes of such meetings are countersigned by the president of the council; when the king resides in Sweden the minutes are countersigned by the other Norwegian minister of state.

Affairs common to Norway and Sweden are decided upon in a combined council of state, where according to the nature of the case three members of the Swedish ministry are admitted to the Norwegian council or vice versâ.

All that the Norwegian constitution stipulates as to the proceeding in diplomatic affairs is that they are not necessarily subject to deliberations in pleno.

Thus while the Norwegian constitution is silent in this respect, § 11 of the Swedish «form of government» (modified in 1885) decrees that the report to the king on diplomatic affairs shall be made by the minister for foreign affairs in the presence of two other members of the Swedish council of state (formerly of one member). This rule has been applied both to the diplomatic affairs touching Sweden only, and to those common to both kingdoms.*)

All the diplomatic affairs that were not submitted to a combined council of state, were decided upon up to 1835 without any responsible Norwegian minister being present, even if only the interests of Norway were in question.

As a consequence of earnest protests against this state of things the king on April 13th, 1835, decreed that the Norwegian

*: As to the actual community of envoys and diplomatic agents as well as of consuls it is not the result of a special convention. On account of this tacit agreement the common expenses of the ministry for foreign affairs and of the diplomatic service are defrayed by a common fund called the Ambassadors' Fund (Ministerkassen) supplied by special votes of credit, in which Norway's share is $\frac{5}{17}$ and that of Sweden $\frac{12}{17}$.

The common fund for paying the salaries of the consuls etc. is called «Kon-sulat-kassen». The Swedish treasury pays a greater sum to this fund than the sum voted in the Norwegian budget; but the greater part of the expenses are defrayed by the imposts on the shipping; as the Norwegian mercantile marine is much more considerable than that of Sweden, Norway really bears the greater part of the burden for the common consuls.

minister of state residing at Stockholm (or if he should be prevented, a councillor as his substitute) should in future be present during the report on diplomatic affairs regarding Norway only or common to both kingdoms.

The civil list and the appanages of the princes and princesses of the royal house are fixed annually by the Storthing.

It belongs to the king to open the sessions of the Storthing and to prorogue it. But he cannot dissolve it nor issue writs for a new election before the expiration of the triennial mandate of the representatives. The king can, if necessary, convoke the Storthing to an extraordinary session. He can prorogue the ordinary sessions after the lapse of two months, and the extraordinary sessions, when he pleases.

The royal «propositions» to the Storthing in the matter of bills as well as those concerning the annual budget of the State, the imposts and extraordinary grants, or other matters that the king wishes to submit to the examination or vote of the Storthing are always presented to it by a councillor of state.

The constitution has positive provisions as to the king's right of veto only in the case of laws which do not modify the constitution (or Act of Union) or make additions to it, which circumstance has been the cause of frequent controversies between the government and the Storthing. All laws, however, introducing such modifications have till the present time been sanctioned by the king. *)

The king has always ordered the execution of imposts and grants voted by the Storthing, even when they were initiated by the royal propositions.

According to § 77 of the constitution, the resolutions approved separately by the Odelsting and the Lagthing must be sanctioned by the king to become laws, even those proposed by the government and voted without modifications. But according to § 79, the king's veto is only suspensory. If three successive Storthings

*) When we hereafter speak of laws, we always mean those that are not of the constitutional order, and are discussed by the Odelsting and the Lagthing (see page 181). The constitutional laws are discussed and voted by the Storthing in pleno.

constituted after three different elections have passed a bill in exactly the same terms, this bill becomes law even without the king's sanction. *)

The fundamental law gives the king some legislative authority. He can issue ordinances having provisional legal effect till the meeting of the next ordinary Storthing, in matters of commerce, customs duties, industrial activity, and police. These ordinances must never be at variance with the existing laws. The limits of this legislative power are however vague. As the Storthing now sits both in the autumn and the spring, only few such ordinances will be necessary. Formerly, when the Storthing sat only every three years, they were often necessary.

The king can give definitive rules for the rites and service of the established church as well as for the military service, provided they are not already defined by law.

The provisions necessary for the execution of a great many acts are made by the king, and the ordinances thus issued have definitive legal authority.

The king has, besides, an extensive power to dispense from obligations imposed by various acts, and he can pardon criminals. But in the cases of impeachment brought before the High Court of the Realm (see page 183), no other pardon can be given than dispensation from the penalty of death.

Except in the judicial department, and when the legislature has not organised, in a positive manner, some administrative service, the king is free to establish without the consent of the Storthing any public functions, provided that the necessary funds for the salaries in question are not dependent on the Storthing.

Generally, however, the royal resolution establishing the new function is given under the supposition that a proper salary shall be voted by the Storthing. When the fundamental law stipulates that the Storthing shall revise the provisional salaries fixed by the king as well as the pensions of retired functionaries, it tacitly attributes to it the authority in this matter. **)

*) The only time the king entirely withheld his sanction after the third passing of a resolution, was on the occasion of the act of December 10th, 1898, regulating the Norwegian flag. When refusing his sanction, however, the king ordered the act to be promulgated.

**) The act of July 27th, 1895, fixes the limits of age for the officers of the army and navy of the different grades. He who has reached the limit will im-

Besides the auditors of the public accounts who, under the constitution, are nominated by the Storthing, the nomination of certain public functionaries is among its legal prerogatives, e. g. that of the directors of the *bank of Norway* and of the *banque hypothécaire* of the kingdom. But the rule is that the civil and military functionaries and the clergy of the established church*) are appointed either by the king himself or by public functionaries nominated by him.

The greater part of the public officials cannot be dismissed except after judgment. A sentence to penal servitude implies the discharge from all public functions.

The members of the council of state, the officials engaged in the government offices, the ambassadors and consuls, the prosecutor general of the kingdom, the prefects, the bishops, and certain officers of superior grades may be dismissed by the king after his having heard the opinion of the council of state. They enjoy two thirds of their salaries till the amount of their pensions is decided by the Storthing.

The public officials who cannot be dismissed except after judgment, can be suspended and then enjoy the whole of their salaries. They must immediately be prosecuted before the courts.

To officials who wish to retire, the king allots a proper pension subject to the final decision of the Storthing.

The king is at the head of the clergy of the established church. Concerning his legislative power in ecclesiastical matters, see the special article on the ecclesiastical institutions.

The king has also the supreme command of the Norwegian army and navy. They must not be increased nor decreased without the consent of the Storthing; this consent is also necessary for calling foreign soldiers into Norway except auxiliaries against hostile

mediately be put on the retired list. He will then have a right to a pension proportional to his pay and the number of his years of service. The pensions will be defrayed from a fund administered by the state. The functionaries pay into it a monthly quota of their salaries; what more is needed is supplied by the treasury. A bill for the introduction of a similar system for the civil functionaries is in preparation.

*) The communities of the dissenters choose their own ministers, and their election is not subject to any government control. The law, however, requires the elected ministers, before they enter upon their functions, to give a declaration in writing, that they will obey the Norwegian laws and fulfill their duties with fidelity and conscientiousness.

invasions. The Norwegian military forces must not be employed in the service of foreign powers, and in times of peace they must only be stationed within the territory of Norway. For a time not exceeding six weeks a year the king may, however, for the purpose of common manoeuvres call into one of the united kingdoms the nearest forces of the other, but their number must not exceed 3000 men.

The troops of the line must not be used for an offensive war without the consent of the Storting.

According to § 26 of the fundamental law the king has the right to assemble troops. He can declare war and conclude peace. Before he begins a war, he must consult the Norwegian government and demand a report on the state of the finances and the national defence; after which the question is treated in a council of all the members of the ministries of both kingdoms.

The Norwegian constitution is silent about the limits of the king's right to conclude treaties with foreign powers. But it has never been considered doubtful that the approbation of the legislature is necessary for every treaty imposing duties upon individuals or obligations upon the state, whether they involve disbursements or narrow the sphere of action of the Storting in legislative or other matters. In this respect the Norwegian practice does not differ from the practice of most other constitutional monarchies. The approbation of the Storting is always reserved as far as necessary.

Finally the collection of the imposts and contributions fixed by the Storting, the administration of the treasury and public finances, of the domains of the state and of the state privileges belong to the government. By virtue of the royal prerogative of issuing edicts affecting the customs duties (see page 176), the king can suspend the collection of an export or import duty which he finds too heavy. When the Storting meets, however, it has the final decision in these matters.

THE LEGISLATIVE ASSEMBLY.

The Norwegian parliament is called «Storting», and is at present composed of 114 representatives, 38 from the towns and 76 from the rural districts. The Storting really consists only of one chamber, but is divided into two sections «Odelsting» and

«Lagthing» for discussing and voting the bills which are brought in, as well as for the exercise of the constitutional control (see below).

The representatives are chosen by an indirect election for a period of three years, during which no authority can dissolve the Storting or issue writs for new elections.

The voters or primary electors choose the secondary electors (valgmand) whose number is one per cent of the voters of the rural election districts and two per cent of the voters of the towns; but the mechanism of the elections is too complicated to be described here in detail.

Each rural parish forms an election district, as does also each town. The secondary electors for the different parishes of the county (amt) assemble at a place determined by the prefect (amtmand) to choose the representatives of the county and an equal number of substitutes. *) These representatives of the counties do not represent the towns therein situated.

The election of the representatives of the towns and their substitutes is made in the same manner as for the counties, even if only one town — as is commonly the case — forms the electoral district.

In 1898 manhood suffrage was introduced into Norway. **) The right of voting belongs to every Norwegian citizen of 25 years of age, domiciled in the country during the last five years and actually residing there. Still the voter himself must see to it that his name is entered on the electoral register (mandtal) of the district before the closure of the register, which — according to an act of July 23rd, 1884 — will take place at eight o'clock in the evening on the tenth day before the day fixed for the election. While these

*) The whole of the secondary electors must be present to perform their functions. For this reason an equal number of substitute electors are chosen for each district. The election of the substitutes is not made separately, but the persons who have obtained the greatest number of votes after the chosen electors, are taken for substitutes so that the candidates of the beaten party commonly become substitutes, and take the place of the chosen electors, if they are prevented. As for the representatives and their substitutes, this will not occur, either being chosen by separate elections.

**) The mandates of the representatives elected in 1897 will expire in 1900, in which year for the first time a general election with universal suffrage will take place.

pages are being printed, a bill introducing modifications into the act of July 23rd, 1884 concerning the electoral register, is before the Storthing. The legal conditions for acquiring or losing the right of citizen will be mentioned later on.

After § 53 of the fundamental law the right of voting is forfeited by conviction of certain crimes and misdemeanours, as also by entering the service of a foreign power without the consent of the government, by acquiring citizenship in a foreign state, and finally by the purchase of votes, etc.

According to § 52, the right of voting is suspended by being, before a court of justice, accused of crimes which may entail defamatory punishments (for particulars see appendix).

The decisions of the election committees on the complaints of voters for not being admitted to vote or for not being entered on the register, etc., may be appealed against to the Storthing.

As secondary electors can only be chosen those who are entered on the register of the rural parish or of the town, and whose right of voting is not suspended. Every primary voter of an election district may be elected as its representative if he has filled 30 years. Only ex-ministers can be elected representatives for a district other than their own.

Ministers in office, and functionaries of the government departments, and dignitaries and functionaries of the court are ineligible.

The mandate as representative is obligatory except for those who have been ministers and are elected outside of their own districts. If a representative has been present at three ordinary sessions of a period he can decline the mandate for the following triennial period.

The representatives are paid as an indemnity 12 kroner a day and their travelling expenses.

The Storthing meets for the ordinary sessions every year (formerly every three years). It assembles on the first working day after the 10th day of October, but has a Christmas vacation of about four weeks. Under § 80 of the fundamental law, the king's consent is necessary, if it wishes to sit for more than two months. The sessions of late years have lasted about 6 or 7 months.

The king opens each session with a speech from the throne, as soon as the Storthing is constituted. He also pronounces the prorogation.

The first Storting of the election period elects one fourth of its members to form the «Lagthing.» The three other fourths form the «Odelsting». The representatives who are chosen members of the Lagthing remain as such till their mandates expire. These sections sit separately in the cases mentioned later on.

According to the standing orders, the Storting and its sections choose presidents and vice-presidents, secretaries and vice-secretaries every four weeks. The presidents determine the sittings and the order of the day, which is printed and distributed to the members before each sitting. Two thirds of the total number of the members must be present to make a constitutional quorum.

The various questions are generally prepared by a committee, which causes the necessary documents to be printed, makes inquiries, and writes a report recommending the proposition which it wishes to be adopted. The different committees are permanent for the session, each for a certain class of affairs. They are elected indirectly. The Storting chooses by ballot a *selection committee* of 23 members and this committee selects the members of the other committees; every representative must serve on a committee. It is quite exceptional for a special committee to be chosen by the Storting for a particular affair. Each committee chooses its chairman and secretary for the session. The members of the committees write by rotation the report on the affairs brought before the committee.

The fundamental law decrees that the representatives cannot be prosecuted for the opinions uttered during the debates of the Storting.

Besides the royal propositions and communications the members may bring in motions before the assembly. All members may bring in bills modifying the constitution. Bills of any other class can only be introduced by the government and the members of the Odelsting.

Private persons who wish to bring in bills before the Storting (or its sections) must have them introduced by members of the assembly.

Everybody is free to send in to the Storting petitions and motions of an other than legislative nature.

Of the procedure in the case of bills modifying the constitution see page 170. Other bills that are lawfully introduced, must first be proposed to the Odelsting, which can amend them or reject them without submitting them to the examination of the Lag-

thing. If the bill is accepted as it stands, or with amendments, it is sent to the Lagthing which either approves it or rejects it in its totality. In the latter case the Lagthing can return it with remarks added on the amendments. These remarks are then taken into consideration by the Odelsting, which after another vote sends it again to the Lagthing. If the disagreement continues, the Storthing (the two sections united) decides on the bill without discussion, when a majority of two thirds is needed for the bill to pass. The only vote then taken is for or against the bill twice accepted by the Odelsting. On the king's veto see page 175.

It is a prerogative belonging to the Storthing to «naturalise» foreigners, which is, however, very rarely exercised. In this case the royal sanction is unnecessary. The naturalisation, however, does not make of the naturalised person a Norwegian citizen, but only makes him domiciled in the country.

The Storthing fixes every year the direct and indirect imposts and contributions, provides for the administration of the properties and domains of the state, and for the direction of its finances. No sale of property belonging to the state and no cancelling of debts to the state can take place without the consent of the Storthing. It superintends the coinage and the emission of notes. The Storthing decides for each budget year the amount of silver and bronze*) to be coined. The national bank, «Norges bank» has the monopoly of the emission of notes.**)

During the six months that follow the close of each budget year the state accounts are submitted to the examination of the five auditors appointed by the Storthing.***) The demands for information and the observations that they judge necessary, they direct to the department of finance, which sends them to the

*) As Norway has had a gold standard since 1874, only gold coins are worth their face value.

**) According to the act of April 23rd, 1892, the Storthing appoints four of the five directors of the national bank (the president of the board is chosen by the king). The Storthing also appoints the three administrators of the branches of this establishment, whose principal seat is at Kristiania.

***) This examination is instituted in order to ascertain whether the ministers have departed in anything from the budgets voted by the Storthing for their departments, or from the decisions which it has made on the administration of the domains and finances of the state. Besides this revision a general verification of all the accounts of the public functionaries or of the establishments of the state is made by the department of revision.

other departments according to the nature of the affairs. After having examined the answers and information given by the administration, the auditors send their report to the Odelsting, which decides whether the irregularity in question may be allowed or whether the minister will have to repay the sum by which he has exceeded the grant, or be responsible for the damage he may have caused.

The Storthing opens loans on the credit of the kingdom. The necessary negotiations, however, are conducted by the government (the department of finance), which prepares the contract and emits the necessary bonds. Generally in affairs of this sort, the government, by preliminary negotiations with the great financial houses, seeks information of the conditions it is possible to obtain, and reports to the Storthing. If the conditions are found satisfactory and the intended loan is deemed necessary or useful, the requisite authorisation is given to the government by the Storthing, which decides the principal points, the terms of amortisation, the maximum of the effective interest and of the abatement, etc. The Storthing has the disposal of the contracted loan.

The Storthing can demand that every treaty concluded with a foreign power shall be laid before it, except the secret articles, which must not, however, go counter to those made public.

On the necessity of the consent of the Storthing to the employment of Norwegian troops outside of the territory of the kingdom, etc., see page 178.

The Storthing has the right to summon before it in matters pertaining to the state any person except the king and those members of the royal family who are not invested with any public office.

The Storthing cannot pass any sentence on persons thus summoned. They must appear, and after solemn affirmation make their answers to the questions that the assembly addresses to them. The fine for non-appearance is 1000—10,000 kroner (act of August 3rd, 1897).

The ministers, the members of the Storthing and of the Supreme Court can be impeached by the Odelsting for crimes and misdemeanours committed during the exercise of their functions. The impeachment is made before the High Court of the Realm, which is composed of the Lagthing and the Supreme Court united. The accused has the right to challenge as many as one third from among the members of the High Court, provided that at least 15 judges are left.

ON THE ACQUISITION AND LOSS OF NORWEGIAN CITIZENSHIP.

Norwegian citizenship is acquired:

1. by birth; for legitimate children if, at the moment of their birth, their father or mother had the rights of citizen; for illegitimate children, if their mother had;

2. by one of the following voluntary acts: a) marriage when a foreign woman marries a Norwegian citizen; b) the establishment of residence in Norway when he who wishes to settle there has been naturalised, except when a native woman has married a foreigner; c) employment in the service of the Norwegian state (compare § 92 of the fundamental law); if it is a public service common to Norway and Sweden (i.e. the diplomatic and consular service) the nomination only confers Norwegian citizenship, if the functionary in question is naturalised and declares that he is no longer the subject of another state.

Norwegian citizenship can also be conferred by a concession of the king or his delegate (at present the minister of justice). Generally this concession can only be conferred on a person who has had a continuous residence in Norway for three successive years, who gives sufficient security that neither himself nor his family will need public assistance before he has been legally domiciled in one of the poor law districts of the country, who is of age,^{*}) and who has not been guilty of any act which would render a citizen liable to loss or suspension of the right of voting (see page 180).

Citizenship acquired by voluntary act or by concession includes also the wife of the new citizen and those children under age who live at his house or are educated at his expense.

Citizenship is lost a) by the acquisition of citizenship in a foreign country; b) by leaving the country without intention of returning. A Norwegian citizen can, however, retain his citizenship by declaring to the Norwegian consul at the place where he re-

^{*}) That is, is 21 years old. There are, however, in Norwegian as in Roman law two degrees of minority. Absolute minority lasts till the eighteenth year, but full majority is only attained at 21. From 18 to 21 a person is a minor under curatorship but can perform legal acts himself except contracting debts and alienating his real and personal property.

sides, within a year after his departure, his intention of remaining a Norwegian citizen. This declaration has full effect for ten years, and can after this period be renewed for ten years more. He who settles abroad in the service of the Norwegian state or in the common service of Norway and Sweden, retains the Norwegian citizenship. Where this right is retained in spite of absence, it is also retained for the wife and those children under age who live with their parents or are supported by them.

Naturalised Norwegians are always free to settle for good in Norway. They have the right to public assistance under the poor law.

Every Norwegian citizen is a Norwegian subject.

The dispensation from military service granted to immigrated foreigners by the laws on recruiting, is continued even after they have become Norwegian citizens.

No real property can — without the authorisation of the king or his delegate, the minister of the interior — be legally acquired by others than Norwegian or Swedish citizens, or companies having the seat of their administration in Norway or in Sweden and exclusively composed of Norwegian or Swedish citizens. It is the same with all rights for using the soil. Dispensations can be granted by the king as far as leaseholds and similar rights are concerned, which may be granted for ten years at most by the minister of the interior.

According to the act of April 21st, 1888, the right of working mines in Norway is open to others than Norwegian citizens.

As for shooting and fishing a personal and restricted authorisation can be given to foreigners.

ADMINISTRATIVE ORGANISATION.

The departments for the different branches of the administration are at present:

1. The department for ecclesiastical matters and public instruction. Besides the affairs which are indicated by the name of this department, its head has also to superintend charities, public assistance in the municipalities, funds for mutual life insurance and private life insurance societies, and finally a great number of public funds whose revenues contribute to defray the expenses of divine service, of public instruction, etc.

2. The department of justice and police. Besides controlling the judicial magistrates the head of this department superintends the general administration of the prisons and the medical matters of the kingdom. It is also this minister who grants certain concessions and dispensations, chiefly in the matter of legal procedure.

3. The department of the interior. It would be too long to enumerate all the branches of this department; it superintends the administration of the municipal authorities, except public assistance and the affairs that are under the charge of the minister of public works. A special division of this department controls commercial and consular affairs.

4. The department of agriculture is charged with the affairs of agriculture proper, with those of forestry, and with the public measures against epizootic diseases.

5. The department of public works has the charge not only of public works properly so called, but also the administration of the posts and telegraphs, and of the funds of the mutual fire insurance common to the whole kingdom.

6. The department of finance has the financial administration of the state, the collection of customs duties and of the other public imposts and contributions; it makes up the state accounts: the national bank is the general treasury of the state.

7. The department of public defence. Besides the military affairs of the army and navy, it has the superintendence of lighthouses, the company of pilots, and the schools of navigation for the employees of the merchant marine.

8. The department of revision verifies and audits the accounts of all the functionaries and establishments of the state.

For administrative purposes Norway is divided into 18 counties (amter) besides the cities of Kristiania and Bergen, which are separate counties. The chief of the administration of the county is the prefect (amtmand), nominated by the king and representing the central power. The prefects of Kristiania and Bergen besides those residing in the other diocesan cities (Hamar, Kristiansand, Trondhjem, Tromsø) all have the title of «stiftamtmand» (prefect of diocese), and with the bishop form what is called the diocesan administration (stiftsdirektion) for each of these districts. This administration is invested with extensive powers in several matters pertaining to the ecclesiastical department.

The administration of the towns of Kristiania and Bergen does not materially differ from that of the other towns which form part of a county.

The authority representing the central power in the towns is called «magistrate» and is nominated by the king. The magistrates of the capital and of Bergen are composed of three burgomasters, while the functions of the magistrate in the other towns are performed by one person.

The 18 counties are divided into 56 subdivisions (fogderier) under magistrates (fogder) appointed by the king. By an act of July 21st, 1894, however, their offices are going to be gradually abolished. They perform the administrative functions corresponding to those of the French sub-prefects; they also administer the rural police and are even public prosecutors in the case of a great number of offences punishable by fines; finally they have the collection of the direct public imposts with the public funds and treasury accounts for their district. In the collection of the imposts, etc., the fogder will be replaced by treasurers of counties (amtskasserere), and at the head of the rural police will be placed special chiefs (politimestre). The towns have always had their chiefs of police.

The functionaries for the local rural police (the «lensmænd») are subordinate to the fogder, and like these they have a variety of functions. Generally there is one in each rural municipality. After the abolishment of the offices of fogder, they will have more important functions. According to the act of June 30th, 1884, the lensmænd are appointed by the prefect, who, however, is generally restricted in his choice to the three candidates proposed by the municipal council.

Certain expenses of the rural municipalities are entirely or partially defrayed by the whole county. On the funds and general councils of the counties, see the special article on municipal organisation.

BIBLIOGRAPHY.

- FREDRIK STANG. *Systematisk Fremstilling af Kongeriget Norges constitutionelle eller grundlovbestemte Ret.* Kristiania. 1833.
- T. H. ASCHEHOUG. *Norges offentlige Ret.* Kristiania. I. 1866. II. 1—3. 2. Edition. 1891—93.
- *Das Staatsrecht der vereinigten Königreiche Schweden und Norwegen.* (Handbuch des öffentlichen Rechts der Gegenwart, hg. von H. MARQUARDSEN. B. 4/2/2. Freiburg i B. 1886).
- Nordisk Retsencyklopædi.* Fasc. 6—8. Kjøbenhavn. 1885—87.
- B. MORGENSTIERNE. *Lærebog i den norske statsforfatningsret.* Kristiania. 1899. (In course of publication).
- A. FÆRDEN. *Almenfattelig Udsigt over Norges Statsforfatning.* Kristiania. 1894.

MUNICIPAL ORGANISATION

WITH regard to its municipal administration, Norway is divided into town municipalities, viz. 39 large and 20 small towns, and rural districts (*herreder*) of which there are at present 525, and which generally coincide with the ecclesiastical districts. A rural district again, usually consists of several parishes (*sogne*), which, in matters specially concerning the parish, act as their own corporation (*sognekommune*). In the country, moreover, all the districts in a county (*amt*) form a unit of their own, the so-called county corporation (*amtskommune*), of which there are 18.

Until 1837, the general management of municipal affairs was in the hands of government authorities, — in the towns, the magistrate, and in the country, the prefect (*amtmand*) with the sub-prefect (*foged*) to assist him, while the inhabitants of the municipality had scarcely any independent influence. This state of affairs was changed, however, by two acts which were passed in the above-named year, relative to the local board in towns and in the country. These acts, which, like the Norwegian constitution of the 17th May, 1814, are built on the principle of popular self-government, maintain the complete independence of the municipality in the management of its own affairs, placing the administrative authority, as well as an unlimited power of rating the municipality and of disposing of the rates, in the hands of the residents, so that a municipality cannot, except by the law, be coerced into a measure or an expenditure which it does not wish to agree to.

The municipalities exercise this authority through their representatives, who form the Council (*bystyre*, *herredsstyre*).

The members of the Council (repræsentanter), whose number, in the country, must not be under 12, and not over 48, according to the size and population of the district, and in the towns from 20 to 84, are chosen for a period of 3 years by those inhabitants of the municipality who have the right to vote. The councillors elect, from their own body, a standing committee, the aldermen (formænd), consisting of a fourth of the councillors, and an equal number of substitutes. The entire Council retires from office every 3rd year.

The services of both councillors and aldermen are gratuitous, but in return, the aldermen as long as they are acting as such, are exempted from all other civic duties.

The entire Council elects from among the aldermen a chairman (ordfører), who is at the head of the whole municipal organisation, and in that capacity has to call and conduct the municipal meetings, and keep minutes of the same, and who has the casting vote at these meetings. All communications and petitions addressed to the aldermen, go through the chairman, and it is also his duty to see to the carrying out of the resolutions passed by the aldermen or the Council. The office of chairman, which is honorary, may therefore entail much work, especially in the larger municipalities. For this reason, in many places a paid secretary is appointed for the assistance of the aldermen.

The chief qualifications for becoming a voter, and being eligible for the election of councillors, are being a Norwegian citizen over 25 years of age, and having paid rates and taxes according to assessment on property or income, to state or municipality, for the year preceding the election; it is also necessary that the voter, as well as the candidate, has had his legal residence in the municipality for the two years preceding election and has not received public charity for the last year, or been a servant in the household of others. The conditions for municipal franchise are thus more restricted than at the constitutional elections, where universal suffrage has now been adopted.

The elections are decided by a majority, as in the political elections, or, if required, by a legally determined number of voters in the municipality, by proportional representation. The ratio system employed in Norway, is a combination of the so-called list system, and the cumulative system. The mode of procedure is as follows: A general invitation is issued, some time before the muni-

cipal election is to take place, to the voters to propose party lists, which are to be signed, in the country by at least 10, and in towns by at least 20 voters, and must be filled in with as many different names, or repetitions of names (cumulation), as there are councillors to be elected. The election committee examines the lists, and sees that they are according to law, whereupon the lists are published as official lists some time before the election takes place. Any voter is at liberty to use as his voting-paper one of the official lists (either unaltered or with the erasure of some names and repetition of others), or any other voting-paper. The counting of the ballots, to find out the ratio that determines the strength of the various parties in the council, is done according to D'HONDT's method, with a modification from the system of the Swiss professor, HAGENBACH-BISCHOFF.

With regard to the relations between the aldermen and the Council, the former body is the administering part of the representation, and the one that performs, so to speak, the daily work in the municipal administration. It is generally the business of the aldermen to administer the affairs of the municipality, maintain its rights, and in all respects generally to watch over its interests and welfare. It is therefore, as a rule, the aldermen too, from whom the initiative comes for the making of necessary improvements in the municipality, or for the executing of any useful plans. All applications and communications concerning the municipality must be made to the aldermen, by whom all matters will be discussed and prepared. Furthermore, the aldermen in the towns form, together with the magistracy, the connecting link between the municipality and the central administration, and as such have to give explanations and declarations with regard to circumstances that affect the municipality, and concerning which the authorities desire information. The aldermen see, moreover, that the municipal accounts are rendered, and appoint the employees of the municipality.

Although the aldermen occupy an important position in the municipal organisation, yet the centre of gravity must be said to be in the Council, more especially as its co-operation is necessary in most matters that concern the finances of the municipality. In other words, the power to vote supplies, the vital nerve in popular government, is mainly in the hands of the Council. The rule is that if the matter about which a determination is to

be come to, refers to grants of salaries, new undertakings, the sale or purchase of property, or the relinquishing of any right belonging to the municipality, the aldermen must lay the matter before the Council. The aldermen can also in other cases, where, on account of the importance of the matter, or for other reasons, it may be thought practical or advisable, procure the decision of the Council, as it is also bound to do, if the prefect so requires it. In addition to this, the Council, aware of its great authority in all financial questions, has gradually demanded a larger and larger share in the affairs of the municipality in questions also of an administrative character. In response to this, special legislation has referred more and more of the most important municipal affairs to the decision of the Council. The revision and auditing of the municipal accounts, for instance, have gone over to the Council, whereas these duties formerly belonged to the aldermen as a part of their controlling authority. In the country especially, the board of aldermen, as an institution, has in this way been merged more and more in the Council.

In addition to the above popularly-elected bodies, there is in the towns, as a third link in the municipal organisation, a government officer, the magistrate. The larger towns have a separate magistracy consisting of one or more members, whose chief business is with municipal affairs, while the office of magistrate in the smaller towns is combined with another official position, as a rule either town judge or commissioner of the police. The duties of the magistrate are generally of an administrative character, as, together with the aldermen, he manages the affairs of the municipality, and prepares the cases. In towns having their own magistrate, the preparation lies almost exclusively with the magistracy, and the carrying out of the resolutions passed rests with it, whereas in smaller towns the magistrate shares these duties with the aldermen. The magistrate, however, has no power to make grants, and in all cases of financial character, therefore, he must lay the matter before the aldermen. The magistrate may, with the consent of the aldermen, be admitted to their deliberations, while he has the right to take part in the meetings of the Council, though without voting. The magistrate, moreover, is a member, and as a rule, chairman, of most of the separate municipal sub-departments, e.g. Board of Guardians, Board of Works, Regulation Commission, School Board, Harbour Commission, etc., and in this way forms

the connecting link between these commissions and the municipality.

Whatever the amount of liberty the municipal constitution allows the municipalities in the management of their own affairs, there are still a few matters in which they are subjected to certain restrictions. The municipalities are placed under the supervision of the prefect as highest municipal authority, and he, in that capacity, has to see that they do not overstep their authority, or encroach upon the rights of others. Moreover, certain measures, in order to become valid, require the approval of the prefect or the government.

Every resolution taken by the Council, i.e. in all more important matters, has to be communicated to the prefect, who has a suspensory veto, and can require that the matter shall come under fresh discussion at a new meeting of the Council, which must also be done, if the measure is agreed to by a majority of less than $\frac{2}{3}$.

If the resolution is then passed at the new meeting by a majority of $\frac{2}{3}$, it immediately becomes valid, but if not, the minority have the right to require that the matter shall be brought before the government, which then has the power to grant or withhold its approbation of the measure passed.

The royal sanction is, moreover, necessary in every case where the measure passed by the Council refers to expenditure which is to be borne by the municipality during a longer period than the succeeding 5 years, or to the alienation of property. It must, however, be remarked that the veto can only be used to prevent a municipality from undertaking new enterprises, or changing the existing order of things, but, on the other hand, not to impose upon it the undertaking of a positive action, e. g. paying a sum of money. The authority of the government is therefore only of a *negative* character. In this connection it is deserving of notice that the sanctioning power accorded to the prefects and the government has been used with great caution, and that it has seldom been employed to obstruct measures concerning which there was a general wish in the municipality. Development has always been in the direction of fully recognising the municipal self-government; and on the other side, it must be acknowledged that the fear that, on account of the self-government allowed them, the municipalities would bring upon themselves pecuniary burdens that were far too

heavy for them, has, on the whole, proved to be groundless. In acknowledgement of this, therefore, the inclination of the government authorities has always gone in the direction of giving the municipalities, as much as possible, the control of matters that concern them. An increasing number of duties have been assigned by the legislature to the municipalities, whereby opportunity has been given them of exercising an influence in almost all matters. As an example it may be mentioned that the municipality has extensive authority in all matters pertaining to the relief of the poor, the public highways, the fire department and public buildings, the School Board, the Board of Health, etc., and furthermore, authority to draw up police regulations — whose ratification, however, requires the royal sanction —, to appoint most of the municipal employees, and to determine how far the sale and retail of spirits, beer and wine is to be allowed in the municipality. The municipalities have in this manner become an important link in the country's administration. By this, however, it is not to be understood that it is always the municipal assembly or its departments that have the control or management of all municipal affairs. As the number of the municipal duties has increased, it has proved to be impossible for the Council to have to do with the entire municipal administration, and it has therefore gradually become necessary to let a great deal of the municipal business pass into the hands of separate municipal sub-departments. This is the case with the relief of the poor, public education, the public buildings, street-regulation, the fire department, the Board of Health, the Harbour Commission, etc. All these special departments are managed by municipal commissions, which consist, as a rule, of some of the members of the Council, or are made up by election by that body. The relations between these commissions and the Council are, in the main, that budgets, and the power of decision in connection with them, are in the hands of the Council, while to the various commissions is assigned the general management of the business placed in their hands and the employment of the grants voted. In these matters, therefore, the Council also has an opportunity of exercising an essential and decisive influence, and frequently more important matters connected with the administration of these special institutions are placed in the hands of the Council. The most important duty that the Councils have to perform, however, is the adjustment of financial matters, of which we shall here give a brief sketch.

Every year a budget is made up of the income and expenditure of the municipality for the following year, in which are included the expenditures of the separate municipal institutions, concerning which their several boards have to make estimates. The budget is prepared in the country by the aldermen, in the towns by the magistrate, who then discusses it in detail with the aldermen. It is then laid before the Council. The amount that is not covered by the regular revenue of the municipality, e.g. from its property and municipal institutions, is procured partly by a tax on houses and landed property, partly by a tax on personal property and income, the Council determining whether, and in what proportion, the tax shall be made a tax on real property, and at what amount the personal property and income is to be assessed. The rate-payers of the municipality are assessed for this last-mentioned tax by an Assessment Commission elected by the Council. The Assessment Commission fixes the amount of property and income for each rate-payer, upon which he has to pay tax, the Commission being bound by the general assessment rules laid down by the Council, while in other respects, and within these rules, it has to act to the best of its judgment. Complaints may be made about the decisions of the Assessment Commission to the Commission itself. If the complaint is not allowed, it may be laid before a Superior Assessment Commission, whose members are also chosen by the Council.

In order to meet the expenses of large undertakings that have the good of the municipality in view, the municipality may raise loans. It may obtain such loans from several public funds, besides which, by royal sanction, it has the right to issue interest-bearing bonds payable to the bearer, similar to the ordinary government stocks and bank-notes. Such municipal bonds must be for sums of over 200 kroner, and must be paid off in the course of 40 years, the payment having to begin within 2 years after the issue and to continue in regular annual instalments.

In addition to the more circumscribed corporations, there is, as has been already mentioned, a higher municipal unit for the country districts, viz. the County Corporation. The reason why the towns are not included in these corporations is naturally that every town constitutes a complete unit by itself, and has few interests in common with other municipalities, while the reverse is the case with rural municipalities.

The county corporations are represented by the County Councils which meet once a year, and consist of the chairmen from all the districts in the county, under the presidency of the prefect, who, however, has no vote. The County Council deals with cases that concern the county in general, and grants the necessary means, for which the taxable property of the county, and to some extent the several districts, are assessed. This is especially the case with great undertakings, which the financial condition of the separate districts does not permit of their accomplishing single-handed, wherefore a combination has proved necessary. As an instance may be mentioned the supplies voted for the county's means of communication, such as the making of roads, and laying of railways. The County Council also deals with matters concerning the county School Board, the Lunacy Department, and the Prisons' Board. The prefect prepares the cases, and lays them before the County Council. It is his special duty to make estimates for the budget of the county corporation, and also to carry into effect the measures passed by the County Council. With regard to the validity of these measures, and the necessity for the approval of the prefect or the government, the same rules hold good as for the more circumscribed municipalities.

BIBLIOGRAPHY.

- T. H. ASCHEHOUG. *De norske Communers Betsforfatning før 1837*. Kristiania. 1897.
W. S. DAHL. *Landdistrikternes Kommunalforfatning. 3. Udg.* Kristiania. 1894.
-

JUDICIAL ORGANISATION

DURING the middle ages Norway was divided into four great jurisdictions (lagthings). Legal proceedings went by custom, which differed in several points and was not fixed in writing. The legislative and judicial power was exercised by the representatives of the people who were present at the lagthings. During the latter centuries of the middle ages the kings usurped a very extensive power for the purpose of filling up the lacunae of the law and issuing edicts. In 1274 king **MAGNUS**, called **LAGABØTER** (i. e. reformer of the laws) remodelled the texts of the ancient laws, and new codes, similar in all essential points, were adopted by the four lagthings. The revised codes existed only in manuscript, and came more or less to differ from one another on account of interpolations in the texts of new laws (royal edicts).

During the union with Denmark many magistrates were Danes who did not even know the language of the Norwegian codes. An official but rather inadequate Danish translation of all the codes of 1274 was prepared (code of **CHRISTIAN IV**, 1604), which was superseded by a wholly new codification, the Norwegian code of **CHRISTIAN V**, in 1687. This code, large portions of which are still in force, is a very considerable work for its time. It contains a great number of enactments of foreign origin, chiefly from the ancient Danish and the Roman law.

In spite of sect. 94 of the constitution stipulating that a new civil and penal code should be voted by the first, or at the latest, by the second ordinary Storting, the civil code has not yet appeared. The preliminary labours for this code were finished more than 50 years ago, but no bill resulting from them has been

brought before the legislative assembly. The penal code did not appear till 1842. A project for a new penal code is at present before the Storting. The code of criminal procedure, founded on the jury system, dates from July 1st, 1887. A code of civil procedure is being prepared. The law of bankruptcy is of June 6th, 1863, and was completely revised in 1899. Besides these reforms, the legislation on succession, on prescription, on bills of exchange and cheques, on maritime commerce, on the condition of industrial labour, etc., has been completely remodelled since 1814.

In the towns, as well as in the rural districts, *civil cases* are generally at first carried before the commission of conciliation (*forligelseskommission*), which is composed of two — for certain cases of three — members chosen by and among the voters of the jurisdiction (*thinglag*), in most cases the same as the municipality. This commission tries to reconcile the parties, and if this reconciliation does not take place, it directs them to one of the courts of law. If the parties are reconciled, the commission fixes in writing the conditions of the reconciliation and gives the force of law to the obligations thus contracted. The parties can, if they are agreed, ask the commission to give an award, but not for debts over 500 kroner. At the request of the plaintiff the commission can also arbitrate where the question does not admit of a doubt and the debt does not exceed the sum of 500 kroner. It can also give an award where real property is concerned, if the value does not exceed the sum of 1000 kroner. Its judgments or awards can be carried on appeal to the ordinary tribunals of first instance.

These tribunals consist each of one judge, *byfoged* in the towns, *sorenskriver* in the country, assisted by four (two) assessors (*lagrettesmænd*) chosen from among the ratepayers. The judge goes on circuit to the different divisions of his district. Generally each municipality forms a judicial division. The ordinary courts are held once a month in the country, and once or twice a week in the towns, and besides extraordinary sessions are held, if the case is urgent. In the jurisdictions of the northernmost counties the ordinary courts are of rarer occurrence. The competence of tribunals of first instance is complete in civil matters, and there lies no appeal from them, if the amount in dispute does not exceed 32 kroner; for higher amounts appeal may be resorted to.

At Kristiania and Bergen there is a special tribunal, *byretten* (the Town Court), consisting of several members, three of whom form the court in civil affairs of first instance where the amount is at least 32 kroner, while one member is sufficient for lesser amounts. At Kristiania and Bergen the decisions of the bankruptcy court and the court of Probate, seizures and sales after seizure, may be carried on appeal before the town court, while everywhere else the decisions of this nature are carried before the appellate courts. The town courts of Kristiania and Bergen are thus on a footing of equality with the latter, and their sentences may, like those of the appellate courts, be appealed to the Supreme Court. The members of these town courts preside in rotation, changing every six months, at the different special courts, civil or criminal, whose judicial personnel is taken from the number of town court judges.

Outside the territories of the above mentioned towns the judgments of the tribunals of first instance in civil matters — provided that the amount in dispute is 32 kroner or more — are carried in second instance before the appellate courts (*overretterne*), which only judge in civil matters. The seats of these tribunals of second instance are Kristiania, Bergen and Trondhjem, and they are composed of a president and two judges.

At the above mentioned civil tribunals the proceedings are at present conducted in writing.

The Supreme Court (*høiesteret*) is the court of final resort and pronounces judgment on appeal in all civil matters where the pecuniary interest is such as admits of appeal. The members of the Supreme Court sit in rotation, a president and six judges for each affair. The procedure is generally oral.

Except the cases to be dealt with by the High Court of the Realm (see page 183), and military crimes, which are judged in first instance by the courts-martial, and on appeal by the Supreme Court assisted by two superior officers, — the regular *criminal courts* are the following:

1. The Supreme Court which is a court of error, and in some cases pronounces sentences on appeal (see page 199).

2. The Committee of Complaints of the Supreme Court (*høiesterets kjæremaalsudvalg*) which has the final decision on complaints raised during the trial of cases (orders of the court concerning the obligation of witnesses to give evidence, etc.).

3. The Court of assize (*lagmandsretten*) which is composed of the court properly so called (a president called *lagmand* and two other judges chosen from among the magistrates of the judicial district and doing duty by rotation), and the jurymen. There are five presidents of the courts of assize in the whole kingdom, which, in this respect, is divided into seventeen districts (*lagsogn*). The jurymen are ten in number. They are selected for each session from among the ratepayers of the *lagsogn* by the drawing of lots. 26 are drawn, besides two substitutes. If disqualified persons should be found among them, they are excluded; the parties and the prosecution can then use their right of challenge.

4. The Court of sessions (*meddomsretten*) which is composed of the ordinary judge of first instance as president with two assistant judges chosen from among the ratepayers, and who take part with the president in the decision of the matter.

5. *Forhørsretten* which corresponds to the French *tribunal d'instruction* and is held before a judge of first instance. He can pronounce immediate sentence, if the accused has pleaded guilty, — unless the case legally is one for the court of assize.

The courts of sessions are competent in the cases that belong neither to the court of assize nor to the *forhørsret*.

The courts of assize have jurisdiction over crimes punishable by more than three years of penal servitude. The law fixes the degrees of punishment among which the choice lies; if the punishment is regularly penal servitude or removal from a public office, the case must be carried before the court of assize. When the accused pleads guilty, the judge of the *forhørsret* can, however, reserve the case for himself, if the punishment does not exceed 9 years of penal servitude. In practice, especially when the severest punishments are applicable, this judge does not make use of his competence, and sends the case to a jury.

All decisions of the courts of sessions and of the *forhørsrets* may be carried on appeal before the court of assize.

If a question arises concerning the form of the procedure or the punishment allotted, it can be appealed to the Supreme Court; the records of the case must then be laid before the Committee of Complaints of the Supreme Court. In certain cases this committee may pronounce immediate judgment on appeal.

At all the criminal courts, except the Committee of Complaints the procedure is oral.

The public prosecution is in Norway only active in criminal cases. *)

The «rigsadvokat» (corresponding to the Scotch Lord Advocate) is the chief public prosecutor.

There is a state prosecutor (statsadvokat) for each lagsogn, except for that of the capital where there are three. They act in this capacity only at the courts of assize. At the trials before the Supreme Court the public prosecutor is represented by a certain number of barristers appointed for this and acting in rotation. At courts of sessions a barrister (sometimes two or more) appointed for this purpose attends for the public prosecutor. The accused is generally assisted by an official counsel for the defense.

In simple police matters where generally no counsel for the defence is deemed necessary, a functionary of the police acts as public prosecutor.

Capital punishment is in certain instances decreed by the code, but has not been executed since 1876.

The punishments entailing loss of liberty decreed by the common penal code are penal servitude either for life, or for terms gradually rising from 6 months to 15 years with intervals of three years, and imprisonment in three degrees according to the dietary scale prescribed for the prisoner.

Penal servitude is undergone in the central penitentiaries, a cellular prison for men at Kristiania called «Bodsfængselet», and an associated establishment, also for men, at the old castle of Akershus. There is another associated establishment for men at Trondhjem, and finally at Kristiania an establishment for women where the prisoners undergo solitary confinement or imprisonment on the associated system.

An act of June 26th, 1893, regulates the place where penal servitude is to be undergone. It directs that the convicts of less than 21 years shall generally work out their sentence in solitary confinement. **)

*) In the few civil cases where, according to the laws, the public interest must be protected, e. g. in a divorce case for desertion of the domestic hearth, a counsel for the defence is given [the party supposed incapable of pleading his or her own cause; this counsel is placed under the control of the tribunal.

**) An analysis of this act will be found in the «Revue pénitentiaire». Bulletin de la Société générale des prisons. XIX. Paris 1895, p. 456 sqq.

The prefectoral or county prisons where those sentenced to imprisonment (generally solitary) are confined, belong to the counties and are maintained by them under the superintendence of the general administration of the prisons subject to the control of the minister of justice.

A total reform in penitentiary matters is being prepared with the innovations that have already been discussed when mentioning the penal code.

On May 2nd, 1894, an act was passed for conditional sentences. If there are extenuating circumstances, the tribunal which passes the sentence of imprisonment or fine can order a suspension of its execution. This suspension can be revoked if the condemned, within three years after the sentence, is prosecuted and found guilty of a new offence punishable by imprisonment, loss of civil rights, or a severer punishment.

BIBLIOGRAPHY.

- Nordisk Retsencyklopædi.* Fasc. 1—5, 9, 10, 12 and 13. Kjøbenhavn. 1878—82, 1887—99.
- A. FÆRDEN. *Almenfattelig Udsigt over Norges almindelige borgerlige Love.* T. 1—3. Kristiania. 1896—99.

SOCIAL CONDITIONS

AMONG civilised states, there is scarcely any that is so fortunate with regard to the equality of its social conditions as Norway. There is no nobility with political or economic privileges, no large estates, no capitalist class. The cultivable land is divided among a number of small freeholders, who constitute the most numerous class of society and its sound nucleus. To make a livelihood in that rude climate and on that weather-beaten coast, calls for energy and endurance, and accustoms the worker to self-restraint.

It may also be said that an evenly distributed prosperity is proved by the number of depositors in the savings-banks established in nearly every community. There is an average of 1 savings-bank to every 5600 inhabitants, and 1 depositor in every 2.8 inhabitants, with 119 kroner to every inhabitant. With regard to the deposits in other banks cf. the special article «Banking».

The highest and lowest strata of society are on the whole no farther removed from one another than that there is constant reciprocal action between them, and transition from the one to the other. The primary school, which is obligatory, is the common basis whence the higher educational institutions organically rise to impart the knowledge required by the various positions, and to insure to all that popular education which contributes so largely to raise individual self-esteem, and give to our democracy, with its universal suffrage, the feeling of security in living under the badge of liberty, equality and fraternity.

The shifting of the strata which the economic development of the century causes everywhere in the social structure, has there-

fore not succeeded here in calling forth the terrible excitement which in other countries makes social questions such burning ones. The interest-differences are not greater than that hope may always be entertained of their being adjusted without imminent peril to the social peace.

As a further illustration of the economic conditions, the population may be divided into the 4 following classes according to their income:

I.	The unmoneyed classes with income up to	700	kr.
II.	The middle classes	»	»
III.	The well-to-do classes	»	»
IV.	The rich people	»	»

which, according to the municipal assessment, gives the following percentage:

I Cl.	about 87.3	of the tax-payers with 50.7	of taxes paid
II Cl.	» 11.2	»	»
III Cl.	» 1.3	»	»
IV Cl.	» 0.2	»	»

Of the total national income, which, for 1898, was calculated to be rather more than 700,000,000 kr., 326 kr. would be the annual average per head, reckoning the population to be 2,160,000. Judging from the recently observed increase in the income, it will perhaps, at no very distant date, find expression in the formula: 1 krone per head per day. From 1890 to 1898, the income is calculated to have increased 16 per cent, which is certainly too low, rather than too high an estimate. The total national property, which in 1891 was calculated at rather more than 2 $\frac{1}{4}$ milliards, has also largely increased during the intermediate years.

Divided among the larger groups of occupations, the annual income is distributed as follows:

Larger tradesmen	1185	kr.
Farmers	788	»
Working-men	533	»
Servants	326	»
Farm labourers	324	»

The statistical information recently obtained by public agency concerning income and property, chiefly shows a surprisingly

small difference between the principal economic groups of the population. There is especially in the numerous small farmers' and country artisans' class a considerable proportion whose financial conditions do not differ from those of the ordinary working-man. It is also an important fact, from a social-economic point of view, that the average income of employers is even less than the average pay of the employees. A comparatively trifling decrease in the earnings of the employers would therefore bring a large number of them over into the ranks of the employees, or even of the working-men.

Labour-wages have, on the whole, been rising, though in different degrees for the country labourer and the town labourer, and also for working-men in the various branches of trade. The percentage of artisan apprentices, for instance, with an annual income of from 200 to 299 kr., has risen, between 1885 and 1894, from 9.3 to 14, and in the income-group 300 to 499 kr., from 7.9 to 10.7. The percentage of seamen in the income-group 200 to 399 kr. has risen from 25.9 to 31.3, and so on. In the case of domestic servants and factory girls, there is also an improvement in the incomes, principally owing to the decrease in the percentage in the lowest income-groups. According to various statements, it must be assumed that the working-men's incomes from 1890 to 1898 have increased by an average of at least 15 per cent.

The women's — married and unmarried taken together — average returns for their work are calculated to be about 253 kr. annually.

In order to illustrate more clearly the standard of life of the population, it may be stated that the greater part of the earnings of the working-classes go to the purchase of food. It is calculated that in general more than 45 per cent of the labour profits go towards food, and about 15 per cent towards clothes. It is also well-known that the expenditure on food diminishes per cent as the higher income-classes are reached, or in other words — in the lower wages-classes the toil for the necessities of life is that in which the activity of life principally centres. The question then arises, what does living cost in Norway? According to investigations on this subject, which, however, are scarcely to be relied on, meat and drink such as would completely satisfy the requirements for maintaining the bodily organism in full vigour, might be obtained for about 160 kr. per head per annum.

According to the above calculation, the Norwegian nation spends 340,000,000 of their 700,000,000 kroner's national income annually on articles of food. It need hardly be said that this calculation is only built upon exceedingly insufficient data, and at any rate can only in the case of the poorer classes give an approximately correct idea of the cost of articles of diet in proportion to the income.

It may, on the other hand, be said with greater certainty, that, as a rule, the Norwegian working-classes are well-fed, and certainly better than the corresponding classes in most other countries. The working-men in the country especially, live in comparatively easy circumstances, both as regards food and lodging.

SOBRIETY.

The position of the Norwegian nation with regard to sobriety will perhaps appear most clearly from the following comparison with other lands.

The average annual consumption of alcohol per inhabitant in litres at 100 per cent alcohol (in spirits, beer and wine)* is as follows for the various countries:

Countries	Years	Litres
Finland	1891—1895	1.8
Norway	1896—1898	2.2
Sweden	1891—1895	4.3
United States	„ „	4.9
Holland	„ „	5.8
Great Britain & Ireland	1896	7.4
Germany	1891—1895	8.6
Italy	„ „	9.9
Denmark	1895—1896	10.1
Belgium	1891—1896	10.7
France	1891—1895	16.0

* The spirit generally consumed in Norway usually contains from about 40 to 45 per cent alcohol. Beer in Norway is calculated to contain 3½ per cent (in France only 3 per cent). Wine is reckoned to contain on an average 10 per cent.

Norway, however, has not always taken up such a favourable position. During the years 1830—40, we find her ravaged by the «Spirits plague», with its sad results, moral, economic and sanitary. It was then calculated that the consumption of spirits was more than 8 litres (at 100 per cent alcohol) per head. By a law of 1816, any one was allowed to distil spirits from their own produce. This naturally resulted in an alarming increase in spirit-drinking. In the forties, legislation took energetic measures against this, supported by a no less energetic voluntary abstinence movement. The manufacture of spirits was only permitted when it was done wholesale. At the present time, there are only 22 distilleries, which together produce on an average about 3,000,000 litres (at 100 per cent alcohol), some of which is exported, while, however, about 1,000,000 litres (finer sorts) are generally imported from abroad. The wholesale and retail sale of spirits was also greatly restricted during the forties. The sale of spirits was made an exceptional means of subsistence. No one was allowed to retail spirits without a license from the Local Board, and without giving up all other trade. The Local Board could actually forbid the retail sale of spirits within their municipality by refusing licenses (local option). The sale of spirits was forbidden on Sundays and holy days, and the afternoon preceding these. The sale of spirits to children and intoxicated persons was prohibited, and also at certain large popular gatherings, etc. Severe penalties were inflicted for the unlawful sale of spirits. A heavy tax was laid both on the home production of spirits (corresponding duty on imported spirits) and on retail sale. The consequences of this wise legislation were soon apparent. The number of bars decreased rapidly (from 1101 in 1847 to 640 in 1857), and a breaking-off of drinking habits, and a consequent decrease in the consumption of spirits were perceptible, as well as an increased well-being and improved health. In our extensive land, the rural districts in particular were almost cleared of spirit-selling, which was concentrated in the towns. By a law of 1871, the Local Boards in the towns were allowed to make over their retail rights to philanthropic companies («samlag»), which, instead of seeking to make the largest possible circle of customers, made it their aim to supervise and restrict the drinking of spirits, and whose net profits from the business should be devoted to «objects of public utility». In other words, it was the introduction of the system known as the «Gothen-

burg System», which is also in force in Finland. Ours, however, differs in several points from the Swedish and Finnish, especially in the fact that the profits do not, as in the neighbouring kingdom, go to the municipal funds. We thus do not tempt the municipalities to improve the state of their finances by a good trade in spirits. Finally, the spirit trade, by a new law of the 27th July, 1894, was practically monopolised by these companies. All men and women over 25 years of age were allowed to decide by «ayes» and «noes», whether there should be any sale of spirits in their town for the next 5 years (vote of the people, or *referendum*). In consequence of this, the sale of spirits has been prohibited of late years in a number of towns. Since 1871, the bars in Norwegian towns have been reduced in number from 501 to about 130, or about 1 to every 4000 inhabitants. For the whole country there is now only 1 place for the sale of spirits to every 16,000 inhabitants. Since 1871—75, the consumption of spirits has decreased still further from 2.8 litres (at 100 per cent alcohol) per head to 1.2 in 1896—1898. At the same time, sums amounting to more than 20,000,000 kr. have been distributed by the «samlag» to objects of public utility.

CONSUMPTION OF SPIRITS (100% ALCOHOL) IN NORWAY.
1815—1898.



Legislation has also to some extent attempted to transfer the beer and wine trades into the hands of «samlag». The consumption of beer in 1896 was reckoned at 16.2 litres per head, and of wine about 2.5 litres per head. It follows in the nature of things,

that the many millions of kroner saved annually in households by the reduced consumption of intoxicating liquors, have contributed greatly to raise the economic well-being of the people. Crime has also decreased. The number of deaths whose cause was assigned to drink during the years 1856—60 was 33 per 10,000, but since then it has decreased steadily, and for the years 1891—94 was only 10.5. The number of lunatics too, and suicides as a result of drink has been continually decreasing with the increasing sobriety.

This wise legislation and heavy taxation, whose purpose has rather been to raise the price of intoxicating liquors and thus restrict their use, than to serve fiscal purposes, have been strongly supported by a voluntary abstinence movement, which has been especially active among the lower classes. It has been said with reason that the Norwegian people have educated themselves to abstinence. The «Norwegian Total Abstinence Society» (Det norske Totalafholdsselskab), founded in 1859, now numbers 1020 associations with 129,259 members. Norway's Grand Lodge of the I. O. G. T. has 352 lodges, with 17,735 members, besides about 8000 children. The Norwegian Good Templars' Grand Lodge has about 4200 members, the Norwegian Women's Total Abstinence Society (Norske Kvinders Total-Afholdsselskab) 2163 members, and the Blue Ribbon about 2500.

MORALITY.

Very little can be inferred as to the moral conditions of the country from the number of illegitimate births. During the last few years, they have amounted on an average to 7 per cent of the total number of births. A law of the 6th July, 1892 compels the father of the child to contribute a certain sum of money fixed by the chief magistrate, towards the expenses of the mother's delivery and proper nursing during confinement. He also has to contribute, according to the decision of the chief magistrate, towards the maintenance and education of the child up to its 15th year, or in certain circumstances, even longer. This law also contains other provisions intended to insure proper nursing to the child, and also relating to legal rules for clearing up the paternity.

In the large towns, above all Kristiania, there are prostitute women who make a living by unchastity. According to the penal law of 1842, still in force, it is a punishable offence to offer one's

body for sale for unchastity; but practically this prohibition has been regarded as unwritten, and is now understood to be repealed in the draught of a new penal law initiated by the government. In several towns the police have instituted regulation and visitation duty for the registered prostitutes, in order to prevent the spread of infectious sexual diseases. In Kristiania, however, the police have not allowed brothels since 1880, and since 1884 have forbidden those who had lodgings for prostitute women to keep a public house. In 1887 the Justice Department commanded the abolition of visitation. There has thus been no regulation prostitution since that time. It is now the Board of Health who, in case of the carrying of infection, may order the infected person to go into a hospital. There is, however, among doctors a feeling for the re-introduction of regulation prostitution, while others, especially moral associations, are opposed to it. There is much difference of opinion as to whether syphilis has increased or not since the cessation of compulsory visitation.

There is a morality association for the promotion of morality, with several branches, and connected with associations of a similar nature at home and abroad.

CRIMINAL CONDITIONS.

About 3000 persons are sentenced on an average every year in Norway, for transgression of the ordinary penal laws of the country. For the years 1891—1895, the average number per annum was 3045, 2565 of these being men, and 480 women. In spite of the growth of the population, the actual number of criminals during the last 30 years rather shows a decrease than an increase, and the relative number has therefore diminished considerably during that period. During the five years 1871—1875, 179 per 100.000 inhabitants (from 1851—1855, as many as 195) were sentenced, while the corresponding ratio in the years 1881—1885 was 165, and from 1891 to 1895, 151. This diminution of crime, which is moreover more marked among women than among men, may be to some extent regarded as a consequence of the improved education, and may also be ascribed to the changes that have been made in the course of the last few decades — especially by the act of the 3rd June, 1874 — with the object of

reducing the severity of the penal law of the 20th August, 1842, which is still, in the main, in force. The entire penal legislation is at present undergoing revision.

Of the entire number of crimes in the years 1891—1895, about 52 per cent were thefts, while the corresponding number in the years 1871—1875 was 61 per cent. There has thus been a considerable decrease. The same is the case with offences against public morals. On the other hand, the total number of assaults and crimes against public authority, has risen from 11 per cent between 1871 and 1875 to 18 per cent of the total number of crimes in the years 1891—1895. The total of the more serious offences committed in Norway for the following periods of five years is here given.

	1871--1875.	1881--1885.	1891--1895.
Murder and manslaughter	66	58	38
Infanticide	147	147	130
Rape	22	34	22
Incest	47	68	54
Robbery	22	11	10
Incendiarism	25	25	7

The punishment most frequently inflicted in Norway is imprisonment on bread and water, the sentence being from 4 to 30 days. Nearly half (48 per cent) of the total number of persons condemned in the years 1891—1895 were sentenced to this punishment, of women separately, as many as 62 per cent. During the same period, 1809 men and 341 women (altogether about 14 per cent of the total number) were sentenced to penal servitude, and of these respectively 9 and 1 for life. Capital punishment still exists in Norway, but no such sentence has been carried out since the year 1876. About 20 per cent of the offences were expiated by fines.

Unlike the offences against the ordinary penal law, breaches of the police laws have increased steadily and greatly during the last few decades, and in the years 1891—1895 amounted to an average of 31,003 as against 16,546 for the years 1870—1874, respectively 93 per cent and 94.8 per cent being committed by the male sex.

It is not easy to determine the position that the Norwegian nation occupies among the nations with regard to the relative number of criminals, as the varied penal legislation in the various

countries, and the different degree of severity with which it is enforced by the police authorities and the courts of justice, place almost insurmountable hindrances in the way of a reliable comparison. This much may, at any rate, be said, namely, that our nation stands comparatively high in this respect.

THE PROTECTION AND INSURANCE OF WORKING-MEN.

As early as 1878, by direction of the government, a full statement was drawn up of regulations relating to the inspection of factories, its aim being to protect working-men from the dangers and over-exertion that factory-labour so often entails. A work was thereby commenced which resulted temporarily in the act of the 27th June, 1892, according to the proposal of a labour-commission of 1885. With this act, the social-political legislation in Norway may be said to have been introduced. The act of 1892 includes all work of the nature of the factory work (and handicraft), and mining. It contains a number of provisions intended to ensure the safety of working-men, and on the whole to provide the best protection possible of the working-man's life and limb, and preserve his health. Out of regard both to health and school education, it has introduced restrictions in the work of children. Children under 14 must not be employed in factory work at all. For young people of ages from 14 to 18, a maximum working-day of 10 hours is fixed; and there are several rules relating to the kind of work that may be assigned to them. One consequence of this is that the school course is now, as a rule, continued longer than formerly. Women must not be employed in underground work, or to take care of machines, nor must they engage in factory work for the first 6 (in exceptional cases 4) weeks after confinement. Nor is work with grown-up men allowed from 6 o'clock in the evening before a Sunday or holy day, until 10 o'clock in the evening of the holy day. Infringement of this law is punishable with fines not exceeding 1000 kr., and it is to be enforced by government inspectors possessing technical skill. Each municipality has its local inspection, consisting of the chairman of the Board of Health, or a doctor appointed by the Local Board, and two others. The government is furthermore authorised to supplement the law by regulations, etc.

Simultaneously with this act, a bill was being prepared relating to insurance against accident, and also a bill relating to insurance in case of illness. The latter, however, according to the wish expressed by the disablement insurance commission of 1894, was deferred in order to be treated with a law on disablement insurance. The accident insurance act, passed on the 23rd July, 1894, in its fundamental features most nearly resembles the Austrian accident insurance act. It includes work people and servants, both in regular employment, and in piece work, who are employed in work of the nature of factory work, or in which other motive power is used than human muscular power, or where boilers are used with steam pressure. It also includes workmen in mines and quarries, in the ice-trade, in all kinds of wharf work (houses, ships, railways, roads, canals), in timber-floating, in railway and tramway works, in the shipping and unshipping of goods, in work in warehouses and stores and in the conveyance of goods connected with them, in diving operations, chimney-sweeping and firemen's work. The above-named persons, however, are only insured against the consequences of accidents sustained during work, when the work is done for an employer whose business includes such occupations, or when the work is for the state or a municipality, or is computed to take at least 30 working days, besides 300 day's works (dagværk). Opportunity is moreover afforded to other employers and employees, of voluntary insurance in the state insurance. Of important occupations that do not come under the law may be named agriculture, shipping and fishing. It includes altogether about 10,000 separate occupations, many of which, it is true, are small and of brief duration. The number of those who come under the law for a shorter or longer part of the year, has been estimated at 80,000. The insurance is undertaken by a common state insurance institution guaranteed by the state, and its object is indemnification against accidents in work, causing bodily injury or death. The indemnification consists, as a rule, in covering the expenses of medical treatment from the fourth week after the accident (for the first four weeks the sick-clubs are supposed to bear these expenses), and in paying 60 per cent of the injured person's wages in case of complete disablement, and a proportionate fraction of them in case of partial disablement. If the accident has resulted in death, the insurance institution pays the funeral expenses (50 kr.), and an annuity to the bereaved family, which is calculated vari-

ously, but never exceeds 50 per cent of the dead man's wages. If he himself is to blame for the accident, no compensation can be claimed; and if the accident is occasioned by a punishable action, the compensation is not limited to the normal amounts.

The funds of the insurance institution are procured by insurance premiums from the employers concerned, and are calculated according to the wages received by the person insured, though not for amounts exceeding 1200 kr. per annum. The premium must not be charged by the employer to the person insured. In calculating the insurance premium, account is also taken of the risk of accident connected with the work, and different risk-classes are therefore established, each with its separate tariff, which is fixed by the government with the approval of the Storting, while the government department concerned decides to which class an occupation is to be assigned. In each municipality, the Local Board appoints one or more inspectors to look after the interests of the insurance institution, see to the payment of premiums and of the amounts of compensation. The insurance institution, however, may allow payments to be made through the public post-offices.

This act has proved, on the whole, to be of great use to persons insured. But it has also appeared that the premiums have been set too low, occasioning a deficit which it was resolved that the state should make up. The last year's accounts showed that 1,147,300 kr. had been paid in in premiums, and 77,900 kr. paid out to 543 confirmed invalids, 11,770 kr. to 50 persons on condition of subsequent reimbursement, 7,620 kr. to 55 widows, 10,900 kr. to 119 children, and 1,440 kr. to 14 parents, about 98,000 kr. in all. According to the account, 1,207,131 kr. have been placed in the reserve fund. At the close of 1896, the assets of the institution amounted to 1,375,966 kr., of which 578,000 kr. were invested in mortgages, the remainder being in banks, or in the hands of various debtors. According to the account, the following sums were paid out or set aside for payment:

- a) 4,284 kr. towards funeral expenses,
- b) 29,995 » in annuities to invalids,
- c) 13,744 » to the families of persons killed, and
- d) 296,739 » towards the medical treatment of injured persons.

The government, in 1894, had moved the postponement of the accident-insurance law, in order to treat it in connection with a general disablement law, with reference to observations made at

Berne in 1891. A law of this kind is of comparatively greater importance to the working-man than insurance against accident, as only $\frac{1}{10}$ (of young people $\frac{1}{7}$) of all the cases resulting more or less in disablement, are occasioned by accidents; and disablement through illness contracted at work, is not included in the act.

The Storting therefore, in 1894, appointed a parliamentary commission to draw up a bill for insurance against disablement and old age, which was to be national. In order to obtain the statistical material necessary for the treatment of the question, the commission has collected and subsequently worked out detailed social statistics in four volumes, treating of the conditions of labour, income, disablement, liability to disease, want of employment, etc., for the whole of the race living in 1894. On this as a basis, the majority in the commission brought in, last year, their measure relating to a compulsory national insurance against disablement, while the minority holds to an insurance including only those classes that are less fortunately situated from a financial point of view. As mentioned above, the commission brought about the postponement of the treatment of the proposed law for insurance against illness. It has therefore also in its report to the Storting laid down the fundamental principles on which an insurance against illness ought to be built, in order that it may act in conjunction with the proposed national insurance against disablement, and also mentioned the alterations which the accident insurance law in question ought to undergo in order to be able to co-operate with insurance against illness and disablement, and work better and more justly both for trade, the state, and the persons insured. For the last three years, the Storting has voted a large sum which has been put by as a fund for the promotion of the intended insurance against disablement.

There also exist in Norway a number of private sick-clubs, burial-clubs and pension funds. For the regular working-men of the municipality too, sick-clubs and pension funds have been to some extent established, and lastly, the state has a number of pension funds and widow's funds for their officials and employees. A proposal has however been made by the agency of the government for a more comprehensive arrangement of the pensioning matters of the state and the municipality.

In short, the present generally-prevailing effort to secure the position of the less well-to-do has attracted attention to a remarkable

degree in Norway also, and has led to results that may be considered favourable. The question of insurance against want of employment has, however, not yet been formulated in any motion. In several towns the municipality has established employment bureaus, where seekers for work may apply for work to employers who require them. A motion for the establishment of municipal employment bureaus such as these is being drawn up by the government. Several municipalities have also organised arbitration courts to mediate in differences between employers and employed.

POOR-LAWS.

With the more humane conception of the social question and the efforts to help those who are not able to help themselves, a need has been felt of revising the old Poor-laws. Only those who entirely lack the means of subsistence, and who are unable to earn them, and cannot, either by private or public agency, be placed in a position to help themselves, are subjects of public provision for the poor. On the other hand, the public charities are neither obliged nor entitled to support healthy, able-bodied persons. These may be referred to workhouses which the municipality has to erect; in the larger municipalities there are also municipal employment bureaus, where the unemployed can apply in order to obtain work. In every municipality there is a Board of Guardians, «fattigkommission», consisting of the parish priest, a police officer, and several men chosen by the Local Board. Every poor district may be subdivided into several circles, each with its inspector. A two-years' residence in a district is required, as a rule, to gain the right of settlement there. The cost of maintenance of pauper lunatics or persons who have no right of settlement is borne wholly or partially by the Exchequer. The average expenditure for every principal person (about 81,000), to whom assistance is given, amounts to rather more than 84 kr. annually, or divided among the population, about 3.30 kr. per head. Most of the parish relief falls of course to those social strata where financial conditions are, on the whole, least favourable. More than half of the cases where relief is given, or about 60 per cent, are due to the illness of the bread-winner or of his family; 10 or 11 per cent are due to the infirmity

of old age, and 1.5 per cent to drink. On an average, from 40 to 45 per cent of the money expended for relief is given in the form of medical assistance or nursing. Only about 30 per cent is given in the form of money. Idleness or any attempt on the part of a man to shirk the work of providing for himself and his family, may be punished with imprisonment, or detention in a workhouse according to the sentence passed. Workhouses, principally for field-work, are to be erected by the state in sufficient numbers.

Great exertions are now being made to check vagrancy, partly by legislation, partly by private agency (labour colonies).

WORKING-MEN'S DWELLINGS.

As 1910, or 54 per cent of Norway's factories (with 48 per cent of the day's works of all factories) are in the country, where houses are easily obtained, the working-men's dwellings question plays a comparatively unimportant part. It asserts itself most strongly in large towns, especially Kristiania, where building-land is exceedingly dear. Here private companies have in some degree attempted to meet the want, and the municipal authorities are engaged in building three small blocks of artisans' dwellings, besides special dwellings for some of its regular workmen. Furthermore, in Kristiania, a few years ago, the workingmen's dwellings were subjected to a careful sanitary examination. The dwellings then proved, to a great extent, to be greatly overpopulated. Since then the sanitary conditions have improved. There are now few cellar apartments, and still fewer that have only 1 room and kitchen. A special functionary is appointed under the Board of Health, whose duty it is to examine the artisans' dwellings, and try to remedy their defects. The increase in house-rents of late years, owing to the rapid growth of the town, gives, however, cause to fear that the question of dwellings just now presents a less favourable aspect.

By various parliamentary resolutions, 2½ million kroner are placed at the disposal of the municipalities, to be lent to persons without means, for the erection or acquisition of houses of their own (House-loan Fund). By resolutions of 1894 and 1895, 500,000 kroner are also placed at the disposal of the municipalities

to be lent to persons without means, for the purchase of plots of ground (Land-purchase Fund). Lastly, there is a committee appointed by the government to draw up suitable conditions for the loans.

WORKING-MEN'S ASSOCIATIONS. SOCIALISM. NORMAL WORKING DAY.

The working-men in the large towns and in some of the factory districts in the country, have organised trades' unions with funds to give support to the unemployed, especially during strikes. There have been several of these of late years, occasioned especially by demands for higher wages, which have also to some extent been obtained.

The social-political question has made the working-men unite in a country union, the United Working-men's Association («De forenede norske arbeidersamfund»), which numbers 125 branches. Outside this association too, there exist several scattered unions of working-men, and in the rural districts also, the union has met with warm adherents within the workingmen's circle.

With the uniform economic conditions, the not greatly developed factory activity, the rising wages, and the great political equality, the social democratic ideas have not found a wide field for their dissemination. The Norwegian Labour-Party («Det norske arbeiderparti») is social-democratic. It was founded in 1887, and possesses 80 associations, among them being 36 trades' unions in Kristiania, and a total of 11,500 members. The social-democratic party has no representative in the national assembly, while in some towns it has one or more members in the municipal Council.

The Norwegian Labour Congress of 1885 advocated the introduction of a normal working-day (10 hours). There are still, however, no measures passed in that direction. In the government works, and in most of the municipal occupations, there is a working-day of 10 hours and under.

THE WOMAN'S QUESTION MOVEMENT.

It is some time since woman was placed on an equality with man as regards coming of age (at the age of 21), equal inheritance

rights, etc. But it was not until the eighties that the woman's question movement began to show more life. In 1884 the Norwegian Woman's-question Union («Norsk kvindesagsforening») was founded to watch over the interests of women in social, financial and legal matters. By an act of 1882, the university had been opened to women. At the same time, the public boys' schools were opened to girls, with the introduction of co-education. This is largely employed in the higher classes too. There is, however, only a small number of girls that carry their studies right on to the university, or to its leaving examinations. In some towns, however, lady-doctors practise, and in recent years women have obtained more and more places in public and municipal service, especially as telegraph operators, post-office functionaries, clerks, etc., thus chiefly in subordinate positions. In the primary schools especially, a large number of women are employed as teachers. In private service also, and as independent business-people (industries, trade, etc.) an ever-increasing number of women find their occupation. In short, women's participation in the intellectual and economic development of the nation of late years is everywhere apparent; and it is not only as self-supporters, but as contributors to the support of others (relations). On the other hand, the frequency of marriages has also increased lately. The average number of marriages from 1886 to 1890 was 12,560 annually, from 1890 to 1895, 13,040, and in 1896 13,962. By an act of 1888, personal authority and right to dispose as she likes of what she herself has earned and the proceeds of it, have been assured to the wife. The law is that there shall be community of goods between the husband and wife, with the husband as their disposer in the capacity of manager. But there is ample and easy opportunity for exclusive possession by contract or by the intervention of the authorities, if the husband squanders the property. The husband has no command over the land or life-policies that his wife brings, nor can he, without her consent, give away more than $\frac{1}{10}$ of the common estate. There is also a strong movement in favour of allowing women to participate in the government of municipality and state. Women take part in the election of inspectors in the primary schools, and may be themselves elected. All women above 25 years of age have the right to vote in municipal questions as to whether the wholesale or retail sale of spirits (by «samlag») shall be permitted. But at present an active effort is being made to place women on an equality with men in all muni-

cial elections, and also to procure for them the right to have a political vote. In addition to the Norwegian Woman's-question Union, there is a number of women's unions for special objects, such as the Well-being of the Home («Hjemmenes vel»), the temperance cause, cookery classes in schools, etc. There are two women's suffrage unions, with several local branches; and a number of papers and periodicals are edited by women, working especially in the interests of women. On the whole it may be said that the Norwegian woman, in social, moral, intellectual and financial matters, occupies a high position. This is evident too, in their daily life and intercourse with the opposite sex.

THE PEACE QUESTION.

It was in 1889 that the initiative of the French deputy, Frédéric Passy, and Randal Cremer, M. P., with regard to international arbitration and peace conferences of representatives from the various countries, was realised by the first conference in Paris. Although Norway was not represented at this first meeting, in which delegates from only 7 countries took part, the idea on which these conferences are based and in the course of time have become established and important institutions, was in reality well advanced in Norway. This is sufficiently apparent from the fact that on the 5th March, 1890, the Storthing agreed on an address to the king, in which, he is requested, in pursuance of the Norwegian fundamental law § 26, «to endeavour to conclude agreements with foreign powers relative to the settlement by arbitration of differences that might arise between Norway and those powers.» In the same year was formed the Norwegian branch of the inter-parliamentarian league, to which a majority of the Storthing members have always belonged, and the branch immediately sent delegates to take part in the second inter-parliamentarian Peace Conference in London, in 1890. Since then, members of Norway's Storthing have never been absent from the peace conferences, their number being generally three. The Storthing has also, in a decided manner, shown its full adherence to the peace question by its official grants towards it. It has always voted travelling expenses for the deputies from the Norwegian section of the international league for peace and arbitration. Since 1897, it has, moreover, voted

unanimously and without a debate, an annual sum to the *international* peace-bureau at Berne. The same year, the Storting began to vote, in its annual budgets, a sum to the president of the Norwegian branch of the interparliamentarian league, as secretary's salary, etc. In the same way, the Storting in 1895 voted 2000 kr. to the *interparlamentarian* bureau at Berne, after a request had been made at the inter-parliamentarian conference at the Hague in 1894 to the countries represented in the league, to try to raise a suitable contribution towards defraying the expenses of the bureau. In 1898, the Storting also resolved to pay a regular annual subscription to the above-mentioned inter-parliamentarian bureau. Finally, in 1899, the Storting voted 50,000 kr. to the inter-parliamentarian conference, which held its meetings in August of the same year, in the Norwegian capital.

It is only necessary to mention these grants by the Norwegian Storting to show how firmly and decidedly the Norwegian people have taken up the great cultural idea, which at length, following the initiative of the Czar of Russia, in 1899 led to the international Peace Congress at the Hague. It is needless to say that the feeling of the Norwegian government in this matter has been one with that of the nation.

In Norway, with her large fleet, which carries the Norwegian flag into all the ports of the world, special attention has always been paid to the deliberations of the congresses with regard to the protection of private property at sea in time of war (Proceedings of the inter-parliamentarian Peace Conference at the Hague, 1894). The public proceedings in Norway, however, have turned upon arbitration treaties and their realisation.

It is also as a special recognition of the services rendered by the Norwegian Storting to the peace question, that a Swede, Dr. A. NOBEL, has, in his will, commissioned the Storting to award the annual prize he has offered out of his large fortune for the best work, or the most meritorious action towards the furtherance of the peace question.

It is needless to say that there is also a general Norwegian peace association (Norges fredsforening), which, with its various branches, works in accordance with the peace associations in all other countries, which have their common organ in the previously mentioned international peace bureau at Berne. They work by means of meetings, and through the press.

BIBLIOGRAPHY.

Norges officielle Statistik.

A. N. KLÆB. *Indtægts- og formuesforhold i Norge.* Kristiania. 1892—93.

AMUND HELLAND. *Hvad vi spiser i Norge, og hvad der spises i Paris.* Kristiania. 1896.

Socialstatistik. Bind I—IV. Bilag til den parlamentariske Arbejderkommissions Indstilling. Kristiania. 1897—1900.

O. J. BROCH. *Kampen mod Alkoholismen i Norge.* Kristiania. 1887.

Odelsthings Proposition ang. Udfærdigelse af Lov om Brændevins Salg og Udskjænkning med Bilage. (Sth.-Forh. 1894, D. 3).

H. E. BERNER. *Le régime de l'alcool en Norvège.* (Revue politique et parlementaire. T. 10. Paris. 1896).

Indstilling fra den departementale komite til revision af øl-, vin- og brændevinslovgivningen. Kristiania. 1898.

Særskilt indstilling af gaardbruger SVEN AARRESTAD. Kristiania. 1898.

WILH. BODE. *Wirtshaus-Reform in England, Norwegen und Schweden.* Berlin. 1898.

A. TH. KLÆB. *The Norwegian system of regulating the drink traffic.* (The Economic Journal. Vol. IX, Nr. 33. London. 1899.)

EILERT SUNDT. *Om Giftermaal i Norge. Bidrag til Kundskab om Folkets Kaar og Sæder.* Kristiania. 1855.

Om Sædeligheds-Tilstanden i Norge. Kristiania. 1857.

B. GETZ. *Udkast til Lov til Modarbeidelse af offentlig Usædelighed og venerisk Smitte, med Motiver.* Kristiania. 1892.

Arbejderkommissionens Indstilling. I: Forslag til Lov om Tilsyn med Arbejde i Fabriker m. V. Kristiania. 1888. (Sth.-Forh. 1890. B. 3.)

— — II: *Forslag til Lov om Arbejderes Sygeforsikring m. V.* Kristiania. 1892. (Sth.-Forh. 1893. B. 3 b.)

— — III: *Forslag til Lov om Ulykkesforsikring for Arbejdere i Fabriker m. V.* Kristiania. 1890.

Indstilling til Lov om Invaliditets- og Alderdomsforsikring for det norske Folk fra den parlamentariske Arbejderkommission. Flertallets Forslag. Kristiania. 1899.

Foreløbigt Udkast til Lov om Syge-, Alderdoms- samt Invaliditets- og Ulykkesforsikring fra den parlamentariske Arbejderkommission. Mindretallets Indstilling. Kristiania. 1899.

Odelsthings Proposition ang. Udfærdigelse af en Lov om Fattigvæsenet, med Bilage. (Stth.-Forh. 1898/99. D. 3.)

AXEL HOLST. *Undersøgelser og Forslag ang. Arbeiderstandens Boliger i Kristiania.* (Aktstykker vedk. Kr.a Kommune, 1895, Dok. Nr. 29.) Kristiania. 1895.

H. E. BERNER. *Bolignøden i Kristiania.* (Aktstykker vedk. Kr.a Kommune, 1899, Dok. Nr. 48.) Kristiania. 1899.

GINA KROG. *Norske kvinders retslige og sociale stilling.* Kristiania. 1894.

Conférence de Kristiania août 1899. L'Union interparlementaire pour l'arbitrage et la paix 1889—1899. Kristiania. 1899.

SANITARY CONDITIONS

DURING the decade 1881—1890, the average length of life in Norway for the male sex was 48.7, and for the female sex 51.2 years. Our country in this respect still ranks among the first, though, in the above-mentioned period, Sweden surpassed us. The longevity has been increasing steadily, and is now 5 years more for males, 4 for females, than during the period 1821—1850. At the same time, the mortality has decreased. During the 10 years 1881—1890, the average was 1.7 per cent (1.83 for men and 1.65 for women).

Of the 331,509 deaths entered during this ten years, 8927, or 2.69 per cent, are due to accidents, and of these, 6047, or about 68 per cent, to drowning. On account of the large coast population, and the active share they take in shipping and in the fisheries, deaths from drowning are comparatively more numerous in Norway than in most other countries. This affects especially the male part of the population, whose percentage of deaths from accidents is therefore much larger than that of the women, the two being respectively 4.54 and 0.83 per cent of the entire number of deaths of each sex.

For a number of years the sanitary condition has been satisfactory, without any alarming spread of epidemic or endemic diseases. The geographical situation and climate are in themselves a protection against many diseases. Yellow fever does not occur, nor has the plague visited us in recent times; Asiatic cholera has not been known for a long time, and ague and dysentery very seldom occur.

The most frequent epidemic diseases with us are *acute bronchial catarrhs* (more than 40 per cent). They appear most frequently

during the cold season of the year, especially towards the end of the winter. Next to these come *acute affections of the bowels* (about 12 per cent). These belong especially to the warm season, and appear to be in a certain ratio to the temperature and the rainfall. *Inflammation of the lungs* occurs all through the year (about 6 per cent of the total number of cases of sickness), but especially in the spring months. Since 1889/90, *influenza* has appeared annually in an epidemic form, generally beginning with the new year, culminating about 2 months later, and disappearing in the summer. From 20,000 to 50,000 cases have been reported annually. Of all the epidemic diseases, *measles* shows the greatest variations. While there were only 52 persons attacked in 1884, we have had three great epidemics during the period from 1881 to 1895 with from 12,000 to 17,000 cases in a single year. *Scarlet fever* shows less variation from year to year, and, during the same 15 years, has varied from 10,911 cases in 1886, to 2,925 in 1892. *Whooping-cough* appears as an epidemic almost every year. The number of cases reported has varied between 3,106 and 10,110 annually. *Diphtheria* and *croup* are of far greater importance, the number of cases having risen from about 15,000 (1500 annually) during the period from 1871 to 1880, to more than 25,000 in the years 1881—1885 (5000 annually), and 69,000 in 1886—1895 (6900 annually). There has been some decrease since 1890. *Puerperal fever* also seems to be somewhat on the decrease, with an average of 650 cases annually from 1871 to 1880, 505 from 1881 to 1885, and 487 from 1886 to 1895. Specifications regarding *pyæmia (septicæmia)* are only forthcoming from the towns. It appears to be comparatively rare. *Erysipelas* is more frequent (about 2000 cases annually). *Smallpox* is not infrequently imported, but it has always been possible to prevent its spread. From 1886 to 1895, 369 cases in all were reported, most in 1891 (99), fewest in 1894 (11). About 1700 cases of *chicken-pox* are reported annually, the majority from the towns. Among the *typhoid* diseases, *febris recurrens* is very rare (only one case since 1875), and both *typhus* and *typhoid fever* are becoming less frequent, the number of cases in the 10 years 1886 to 1895 being only half that of the preceding 10 years. The average number of persons attacked annually was 1500 by typhoid, 58 by typhus fever. The latter occurs almost exclusively in the north of Norway. About 50 cases of *cerebrospinal meningitis* are entered annually as epidemic. Any con-

nection between them, however, can seldom be demonstrated. Now and then there are cases of the so-called «lemming fever», which is ascribed to the poisoning of drinking-water by dead lemmings. Most of the cases of *bloody flux* (200—300 annually) should more properly be regarded as bloody epidemic diarrhœa, not as dysentery. *Asiatic cholera* appeared last in 1872 (23 cases and 10 deaths). *Ague* is now and then brought home by sailors. *Beriberi* has sometimes come in the same manner, but has never spread. *Scurvy* (about 80 cases annually) is seldom found except in the northern districts. The total average number of cases of epidemic diseases from 1886 to 1895 was 87.2 per thousand inhabitants annually (acute bronchial catarrh 37.6, diarrhœa 12.8, influenza 10.1, inflammation of the lungs 5.4, measles, scarlet fever, whooping-cough and diphtheria 3.3—3.6, typhus fever, cerebrospinal meningitis, small-pox and scurvy 0.03).

The deaths reported by medical men included, in the same ten years, about 62 per cent of all the deaths from disease; and of these, an average of 6950 annually (about 30 per cent of the total number) were due to epidemic diseases. The influence of these diseases upon the death-rate depends, however, less upon the frequency of the cases than upon the virulence of the diseases. In 1894, when diphtheria and inflammation of the lungs appeared in a malignant form, and there was an epidemic of measles, the number was 7943; in 1895, when no epidemic disease was specially frequent, it was 6007. With regard to the division between the various diseases, 8 per cent of the total number of deaths from disease were due to inflammation of the lungs, from 2.9 to 12.8 per cent to diphtheria and croup, about 5 per cent to acute catarrhs, 4 per cent to diarrhœa and cholera, and less than 2 per cent to influenza. The distribution in town and country is fairly even, when diarrhœa is not taken into account. Great epidemics of this disease often occur in the summer in the towns, affecting the mortality among children.

Among chronic diseases *tuberculosis* occupies the most prominent place. There are no reliable statistics to be obtained earlier than 1853, and since then the disease has steadily increased, by a total of 30 per cent. In every 1000 inhabitants, an average of 2.65 died annually of tuberculosis during the years 1853—1860, 2.85 from 1861—1870, 3.24 from 1871—1880, and 3.38 from 1881—1890. During the last 20 years, consumption has caused 15.5 per cent, and the other tuberculous diseases 4 per cent of the

total number of deaths reported by medical men. The extent of the disease is different in the various parts of the country, and in the various age-classes. In the first years of life, and between the ages of 20 and 30, the predisposition appears to be greatest, and in the latter of these periods 57 per cent of all the deaths reported are due to tuberculosis. After the age of 40, the predisposition and mortality seem to diminish gradually. It has been calculated that deaths from tuberculosis between the ages of 15 and 60 occasion a loss of labour-power worth at least 28,000,000 kroner annually, and that a sum of about 1,000,000 kroner goes annually towards the nursing of the patients, including food, lodging, attendance and actual medical expenses.

Attention has of late years been more and more drawn towards the increasing spread of tuberculosis. A government bill for adopting measures against the disease has been brought before the Storting, and a sanatorium has been erected exclusively for tuberculosis patients.

Leprosy (lepra, elephantiasis) is at present of minor importance. Even towards the middle of the century, its increase was considered alarming. But the careful counting of the lepers since 1856 has shown the favourable result that the number has decreased from 2870 in 1856 to 2263 in 1875, 1470 in 1885 and 688 in 1895. This happy decrease is certainly mainly due to the exhaustive measures taken for the isolation of the sufferers. It was therefore possible in 1895 to close two of the four government hospitals for lepers. Of the 688 lepers then remaining, 328 were at home in their districts, while 360 were nursed in the hospitals. Most of the lepers are now, as formerly, found in the coast-provinces from Stavanger to Tromsø.

The number of *lunatics* at the last enumeration in 1891 was 7749 or 3.88 per mille of the population. Of these, 2431 or 1.22 per mille were idiots from birth or early childhood. Congenital lunacy is found to have increased until 1855, then rapidly decreased until 1865, while since that time it seems to have been stationary or at any rate to have increased only slightly. The acquired mental maladies increased slowly up to 1865. During the succeeding 25 years the ratio has risen from 1.86 to 2.66 per mille, an increase of as much as 43 per cent, a fact which is calculated to rouse attention.

In the latter half of the last century and part of this, the malady called *radesyge* was very prevalent in this country, whereas it very seldom occurs now. It may be considered certain that it was

a form of tertiary syphilis. *Syphilis* in its familiar forms is not so common as in many other countries. About 1000 cases are treated annually in our hospitals, and about twice that number outside. From 60 to 80 deaths from syphilis are recorded annually, but the greater number of the deaths caused by syphilis are concealed, as elsewhere, under other causes.

Among other chronic diseases of importance may be named *cancer* and *sarcoma*, with 6 per cent of the known annual number of deaths, and *organic diseases of the heart*, with about 5 per cent.

SANITARY MEASURES. HOSPITALS AND INFIRMARIES.

a) *Government Institutions.* It was at an early date that the state established institutions for lepers. There were originally 4, 2 at Bergen, 1 at Molde and 1 at Trondhjem, all large and costly institutions. Lungegaard Hospital at Bergen, moreover, was fitted up with an ample scientific apparatus, library, collections, etc. In 1866, when the number of inmates was greatest, 795 lepers were treated at these institutions. Since then the number has steadily decreased to 360 at the end of 1895, when it was possible to close Lungegaard Hospital and Reknes Hospital at Molde as leper hospitals. Since 1897, Reknes has been used as a sanatorium for tuberculous patients, and is fitted up with accommodation for about 60, 10 of them children. From the opening day, the 15th November, 1897, until the 31st December, 1898, 211 patients were admitted, and the number of days of attendance was 17,309. A new hospital for consumption is planned in Lyster in Sogn, where a site has been purchased in a well-wooded, mountainous district, 1600 feet above the sea.

The state has further erected the State Hospital in Kristiania with medical and surgical wards, besides special wards. It is intended for patients from all parts of the country, and is also a clinical educational establishment. The daily number of inmates in 1895 was 376.

In Kristiania and Bergen, the state maintains lying-in hospitals and obstetrical schools in connection with them. The lying-in hospital in Kristiania is also an educational establishment for the medical students. The number of births there in 1895 was 969, in Bergen 112.

The state possesses three lunatic asylums (Gaustad near Kristiania, Rotvold near Trondhjem, and Ek at Kristiansand) with accommodation for 820 patients in all. An asylum is being erected at Bodø for the northern districts, and in the Trondhjem house of correction there is a criminal asylum for 30 lunatic criminals.

Lastly, two seaside hospitals for scrofulous children (at Fredriksvern and Bergen) receive support from the state.

b) *County infirmaries*. In most of the counties there are one or more infirmaries (21 in all), which have been erected and are maintained, directly or indirectly, with county funds. Some are open only during part of the year, the fishing season. Most of them owe their existence to the «radesyge». The patients are of various kinds, and occasionally include lunatics among their number.

c) *Municipal infirmaries* are carried on in several towns, the largest in Kristiania, Trondhjem and Bergen. Patients suffering from epidemics are also treated in these hospitals, in more or less isolated wards. In several municipalities, however, there are special epidemic hospitals, the largest being in Kristiania with beds for 200 patients. There are municipal lunatic asylums in Kristiania, Kristiansand, Bergen and Trondhjem.

Certain hospitals owe their existence to charitable institutions, e.g. St. Jørgen's Hospital for lepers in Bergen, Oslo Lunatic Asylum, Our Lady's Hospital, the Deacons' and Deaconesses' Houses in Kristiania, etc.

There are also two *private* lunatic asylums.

There are several *sanatoria* for convalescents and neurasthenics, some among the mountains, some on the coast. Most of them are only open in the summer, and are not under medical supervision.

Public *bathing establishments* are found all over the country, often in connection with the hospitals. In several places, moreover, especially in the northern districts, there are so-called *badstuer* («bathing-rooms»). These are primitive Turkish baths, and consist of timber rooms heated with red-hot stones. The steam is produced by pouring water upon the stones.

Among the larger *bathing-places* may be named Sandefjord, Larvik, Modum and Eidsvold. At the first two, sulphurous springs and mud baths are the principal remedies; at the last two, iron springs and baths.

THE MEDICAL PROFESSION.

Only those who have taken their degree in medicine at the Norwegian university are entitled to practice as *doctors*. The king may also grant this right to others, but this power has only in a very few cases been exercised. The number of certificated medical practitioners in July, 1899, was 1068, of which 54.4 per cent were in the towns, and 45.6 per cent in the rural districts.

Dentists are authorised by the king after undergoing practical and theoretical tests. In 1899, their number was 198, almost all in the towns. Since 1893, the state has supported a policlinic for dental diseases in Kristiania, where the majority of students in dentistry receive instruction.

About 55 *midwives* pass their examination annually in the two schools in Bergen and Kristiania. For purposes of obstetric aid, the country is divided into midwife-districts, each with its midwife appointed by the county. The number of these districts has had to be continually increased.

The number of *quack doctors* is steadily decreasing. They appear to be most resorted to in the northern provinces.

Vaccination is obligatory in as much as the certificate of vaccination must be produced at confirmation and marriage. The country is divided into vaccination districts, which generally coincide with the midwife-districts. Only doctors are entitled to vaccinate. Others may be authorised to do so, and are called assistant vaccinators. The midwives generally act as assistant vaccinators. The number of persons vaccinated increased up to 1880, since which time it has somewhat diminished. Of late years the vaccine used has been principally animal vaccine from the government institution established in Kristiania in 1891.

The sole right of selling drugs is in the hands of the *chemists*, who after passing examinations, are either appointed by the king (personal license), or acquire by purchase or inheritance one of the old chemist's licenses (actual license). Of the first kind there are at present 82, of the second 37, most of them in the towns. Medicines are sold at fixed rates that are revised once a year.

Male and female *nurses* are trained at the Deacons' and Deaconesses' Houses in Kristiania, and in several associations, e. g. the Red Cross and the Norwegian Women's Hygienic Union.

THE MEDICAL DEPARTMENT AND LEGISLATION.

At the head of the civil medical board, which is under the department of justice, there is a director who has a technical and a legal adviser at his disposition, and also a staff of medical men and chemists. The country is divided into district and town practices, whose holders («distriktslæge», in the towns «stadsfysikus») have the superintendence of medical matters, attend the sick poor and the lunatics maintained at the public expense, supervise the treatment of persons suffering from epidemic diseases, etc. In every county there is a doctor as the adviser of the authorities in lunacy matters. This doctor has the chief superintendence of lunatics maintained at the public expense.

In every municipality there is a board of health («sundhedskommission»), with the official doctor, or another doctor appointed by the medical director as chairman. The board is to have its attention turned to the sanitary condition of the place, and adopt the necessary measures upon the outbreak of infectious diseases. Its decisions can only be rescinded by the king or the department of justice.

For protection against the introduction of certain dangerous diseases, such as small-pox, cholera, yellow fever and plague, a quarantine is enforced upon infected or suspected vessels. The state maintains a quarantine upon Odderøen near Kristiansand; and in the sea-ports a quarantine commission is established, consisting of the board of health in conjunction with one nautical and one revenue member.

Among other measures concerning medical affairs may be noticed the act of the 4th June, 1898, by which every corpse, before burial, must be seen by a medical man, or by two — in exceptional cases only one — trustworthy persons; and the act of the 11th June, 1898, by which cremation was permitted in the country.

BIBLIOGRAPHY.

Norges officielle Statistik, especially:

Beretning om Sundhedstilstanden og Medicinalforholdene i Norge. (Rapport sur l'état sanitaire et médical. Résumé en français). Yearly.

Overblik over Sindssygeasylernes Virksomhed. (Statistique des hospices d'aliénés). Yearly.

Beretning om de Spedalske i Norge i Femaaret 1891—95. (Rapport sur les lépreux en Norvège pour les années de 1891 à 1895). Kristiania. 1898.

FINANCES

FINANCES OF THE STATE.

NORWAY, after the separation from Denmark in 1814, commenced her existence as an independent state under very difficult financial conditions. The country was entirely impoverished and all the industries were languishing, and to this must be added that the common Dano-Norwegian finances and monetary system had got into the greatest disorder during the last years of the period of union. The state revenues, therefore, were very scarce and also very unreliable, inasmuch as a great number of the inhabitants of the country were unable to pay the taxes and contributions levied upon them. The state, on the other hand, had to charge itself with expenses which, compared with its economic strength at the time, were very large, partly in order to place the currency on a stable basis, partly to cover that part of the common Dano-Norwegian national debt which the country had to take upon itself.

In 1816, the paper currency circulating in the country was ordered to be redeemed at $\frac{1}{5}$ of its face-value, that is to say about kr. 10,000,000. The minor portion of this debt was settled by means of a tax immediately levied on property and income, and the rest by means of a loan obtained from the Bank of Norway, an institution which was established at the same time; this loan was also gradually repaid by means of a tax on property and income.

As its share of the common Dano-Norwegian *national debt* Norway was at once charged with the amount of kr. 6,810,000,

for which state bonds, not subject to be called in by the creditor, had been or were now issued; and the country furthermore undertook to pay to Denmark a fixed amount of kr. 12,000,000, which was to be paid in instalments in the course of 10 years. This last mentioned debt, however, the Norwegian Treasury was unable to pay out of its ordinary revenue and it, therefore, covered it by raising two public loans, in 1820 and 1822 respectively. These loans were obtained abroad, but, on account of the poor credit which the Norwegian state at that time enjoyed, they had to be made on extremely onerous conditions. As the country, however, notwithstanding the hard times, punctually met its obligations, its credit soon improved, and after a short time the first loans could be exchanged for new loans obtained on very favourable terms. These loans, together with some minor loans raised in the twenties, were gradually repaid, and as no new loans were made for some time, the national debt at the end of the year 1847 was reduced to a point never attained either before or since. While the state had commenced its independence with a debt of about kr. 25,650,000, this had now been reduced to about kr. 7,250,000, whereof kr. 900,000 represented terminable debt and kr. 6,350,000 were perpetual.

The *revenues of the Treasury*, as indicated above, were at first very scarce. For each of the budget years 1816 to 1818 they were estimated at only 5,748,400 kr., but they rose gradually, so that in the forties they amounted on an average to kr. 11,000,000. The chief source of income was represented by the taxes, which in the forties represented $\frac{4}{5}$ of the total revenue. The chief taxes again were the customs and excise duties and the direct tax on property and income introduced in 1816, which at the beginning was levied to the amount of kr. 2,400,000 annually, but was gradually reduced and entirely repealed in 1836. The customs duties and excises during the first few years amounted to about kr. 2,700,000, and gradually increased (notwithstanding that the excises were repealed in 1827), so that in the forties they amounted on an average, to kr. 7,950,000, while the other duties at the same time amounted to kr. 875,000.

Of the *state expenditure*, which in the forties amounted, on an average, to kr. 10,600,000 annually, kr. 4,075,000 were then voted to the defences, kr. 3,825,000 to the royal family, Storting, civil administration, courts and police, kr. 850,000 to the payment

of interest and instalments on the national debt, kr. 300,000 to pensions, and kr. 225,000 to foreign affairs. To cover all the other objects of the state, such as public instruction, sanitation, advancement of trade and industry, means of communication, etc., which now play such an important part in our state budget, there was then left only an aggregate amount of kr. 1,300,000.

Since that time, and especially since the seventies, a large increase in the revenue and expenditure of the state has taken place. If we refer only to the *ordinary revenue and expenditure* of the state, and these be entered with their net amounts, as was done on the whole in previous budgets, we find:

	Revenue:	Expenditure:
In the financial year 1850 . . .	kr. 12,434,400	kr. 11,458,440
—»— » 1860 . . .	» 15,684,880	» 17,470,280
—»— » 1870 . . .	» 18,075,040	» 17,203,200
—»— » 1879—1880*)	» 27,748,505	» 28,622,705
—»— » 1889—1890	» 34,359,853	» 29,935,193
—»— » 1897—1898	» 50,997,436	» 43,525,163

The ordinary revenue and expenditure have thus been nearly quadrupled during the last fifty years.

Since 1880 the revenue and expenditure of the state are generally entered on the budget and in the state accounts with their *gross* amounts, the revenue without deduction for collection and *other* expenses, which are entered on the disbursement side, and expenditure without deduction for the receipts obtained by the *various* branches of administration, which appear on the revenue *side*. The revenue from the different special funds of which the Treasury disposes for state purposes, and the expenditure caused *thereby*, are also entered on the budget. Making up the budget *in this* manner, the total revenue and expenditure of the state *were*:

*) It should be noted that the financial year up to and including the year 1877 tallies with the calendar year, but after that time the financial year has been reckoned from July 1st of one year to June 30th of the following year, and after 1900 it will be from April 1st to March 31st.

Financial years	Revenue kr.	Expenditure kr.
1880—1885, on an average	44,865,345	43,402,789
1885—1890, „ „ „	45,539,337	44,190,225
1890—1895, „ „ „	56,539,039	57,835,616
1895—1896	71,932,505	69,162,731
1896—1897	69,047,140	76,729,918
1897—1898	80,065,304	78,531,426

Here, besides the regular revenue and expenditure are also included such as are considered *extraordinary*. On the income side are entered under this heading the receipts obtained by state loans, which, during the financial years of 1880—1898, amounted to kr. 61,228,678, as well as the contributions of the several districts to the building of railways, which during the same period amounted to kr. 5,009,126. Among extraordinary disbursements is included in the first place expenditure for the building of railways, and the laying of telegraph and telephone lines, as far as they are met by sums obtained by means of public loans or district contributions; and these expenses in the years 1880 to 1898 amounted to kr. 42,201,289. There are furthermore sums voted since the year 1890 for extraordinary measures relating to the defences of the country, in order to place the latter on a footing compatible with modern requirements, for which purpose there have been spent kr. 26,931,137 up to the year 1898. These disbursements have partly been met by money obtained by public loans, partly by a temporary increase of the income tax and partly by other regular revenue. To this must be added certain special disbursements, and finally the money employed to acquire state assets. The latter, as a matter of fact, do not represent a real expenditure for the Treasury, but a transfer of state property.

By deducting all these amounts we obtain the *ordinary* revenue and expenditure of the state, which were:

Financial years	Revenue kr.	Expenditure kr.
1880—1885, on an average	40,484,157	39,734,900
1885—1890, „ „ „	45,197,901	43,823,040
1890—1895, „ „ „	52,487,973	52,541,339
1895—1896	58,445,529	59,396,469
1896—1897	65,128,500	62,737,726
1897—1898	75,101,562	67,317,877

The *ordinary public revenue* can be divided, according to its nature, into the following chief groups, which, during the financial year 1897—1898, yielded the following amounts:

1. Taxes	kr. 46,911,653
2. Receipts from crown-land	» 1,257,974
3. Receipts from the assets of the Treasury	» 3,322,600
4. Receipts from various special funds and contributions for state purposes	» 2,337,462
5. Receipts from means of communication	» 17,011,443
6. Receipts obtained in the other branches of state administration	» 3,576,231
7. Sundry and casual receipts	» 684,199
Total	kr. 75,101,562

It will be seen, that the *taxes* still represent the chief source of income to the Treasury. They amounted to rather more than 62 % of the aggregate gross income, and to about 87 % of the revenue calculated at its net amount. Every individual of the population at the end of 1897 was charged with a tax of kr. 21.97; kr. 5,285,938 of the aggregate amount of the tax were produced by direct, and kr. 41,625,715 by indirect taxation.

Under the heading of the *direct taxes* are reckoned three, namely: *taxes on foreign commercial travellers*, which in the year 1897—1898 yielded kr. 174,860, and the *legacy duty*, which is a charge of from 6 to 8 % on all inheritances falling to others than the wife, descendants or parents of the deceased, and which, in the same year, amounted to kr. 709,940, and finally the *income tax*. This tax was introduced in 1892, and was originally levied at the rate of $2\frac{2}{3}$ % on income from property, and 2 % on other income. A certain progression has since been introduced in this taxation, so that a tax of 2 % is now paid on incomes of up to kr. 4,000, 3 % from kr. 4,000 up to kr. 7,000, 4 % from kr. 7,000 up to kr. 10,000, and 5 % on incomes above kr. 10,000, and $\frac{1}{3}$ pro mille on personal property. Incomes of less than kr. 1,000 are not subject to taxation, and of incomes subject to taxation an amount is exempted which, according to the number of persons that the tax payer is obliged to support, varies between kr. 600 and kr. 1,800. Nobody is compelled to give information about his own income or property; the tax is assessed on the persons subject to taxation by

the municipal boards of assessments. The income tax in 1897—1898 yielded a revenue of kr. 4,401,137, 69 % whereof was paid by the towns, and 31 % by the country districts.

The *indirect taxes* are as follows:

Customs duties, liquor tax, malt tax, stamp duties on documents and playing-cards, and departmental and judicial fees.

Customs duties. The customs system of the Norwegian state, which at the beginning was moderately protectionist, gradually changed after the forties, but especially in the sixties and the beginning of the seventies, into a free-trade system. The customs duties were thus to a great extent transferred from the products of agriculture and industry to a few articles of especial fiscal importance, the duties on sugar, tobacco, and coffee being increased, while the duties charged on products of handicraft and industry, especially textile goods, were considerably lowered, the duties on cereals were reduced to a trifle, and the duties on live stock and meat were entirely repealed. In the mean time the severe depression of several branches of trade, following the flourishing times during the first half of the seventies, produced among the manufacturers of the country a protectionist movement, which gradually increased in strength, and, in connection with the agrarian movement which was just then gathering strength, in the years from 1888 to 1896 succeeded in introducing into the customs tariff a number of sporadic changes in a protectionist direction, and finally, in 1897, in carrying through an entirely new customs tariff, by which protectionism has again become the controlling force in our customs policy. The rates of the tariff are, however, even though they, also for a few other articles than articles of luxury, amount to one third of the value or more, on the whole moderate. Roughly speaking, as regards half-completed manufactures, in so far as the latter are incumbered with duties, they amount to 5 % or 10 % of the value. For agricultural products (apart from cereals which, with the exception of malt, are either free or charged with a very low duty), they amount to from 10 % to 30 % of the value, and for completed products of industry or handicraft, to between 15 % and 30 % of the value. The system of free entry being allowed to raw materials imported for industrial purposes, has in most cases been maintained; and the same rule applies to some half-completed manufactures, while on the other hand higher duties have been retained on a few fiscal articles. Thus the duty on

sugar has been fixed at 20 øre, on tobacco stems and leaves at kr. 1.75, on snuff at kr. 3, on cigars and cigarettes at kr. 4.50, on smoking and chewing tobacco at kr. 2.10, on coffee at 30 øre, on malt at 50½ øre, all per kilogram, and on alcoholic liquors at kr. 2.54 for each liter containing 100 % alcohol.

In the calendar year 1898, the import duties were distributed in the following manner between the different articles:

Sugar	kr.	5,912,000
Tobacco	»	3,502,000
Coffee	»	3,215,000
Malt	»	2,794,000
Woollen goods	»	2,125,000
Alcohol and alcoholic beverages	»	1,726,000
Meat	»	1,453,000
Cotton goods	»	1,331,000
Other manufactures	»	1,215,000
Cereals (excepting malt)	»	1,169,000
Wine	»	674,000
Sole leather	»	554,000
Other articles	»	8,298,000
Total	kr.	33,968,000

Among the customs duties, apart from the import duties, is included a tax on shipping, called the loading and lighthouse tax, which, with a few exceptions, is paid by vessels importing goods to the country, and amounts to 80 øre for each ton discharged. Vessels exporting goods from the country pay a tax which amounts to 50 øre for each ton of goods loaded.

During the financial year 1897—1898, the import duties amounted to kr. 29,713,790, the loading and lighthouse tax to kr. 1,813,284, and the other receipts from customs duties to kr. 60,019. The total customs revenue thus amounted to kr. 31,587,092, or a little more than $\frac{2}{3}$ of the whole amount raised by taxation. For the sake of comparison, it may be stated that the items of the customs revenue were:

in the financial years 1880 to 1885, on an average	kr.	18,629,915
— — — 1885 - 1890, — — —	»	20,795,134
— — — 1890 - 1895, — — —	»	21,759,504
— — — year 1895 - 1896,	»	23,311,101
— — — 1896 - 1897,	»	26,653,399

The tax on spirituous liquors. The production of liquor is only permitted in distilleries that are under state supervision. On the liquor distilled at these distilleries, a tax on production is imposed, which since Sept. 15th, 1899, has been paid at the rate of kr. 2.28 per litre of liquor containing 100 % alcohol. On imported liquor there is, as stated above, a duty of kr. 2.54 per litre, so that the protection granted to domestic production amounts to 26 øre per litre. This tax is refunded for such liquor as is exported out of the country or made unserviceable for drinking purposes. The liquor tax, in the financial year 1897—1898, produced kr. 3,880,617.

The malt tax. The production of malt for household purposes is free from any taxation. Production of malt, however, for sale, or for the preparation of saleable liquors, can only take place at malt-houses which are under state supervision. On this production a tax is paid on the raw material, and calculated on the amount of grain which is steeped in order to be made into malt, at a rate of taxation which is at present fixed at 37.1 øre for each kilogram of steeped grain. For beer which is exported to foreign countries a reimbursement of the amount of the tax paid is allowed. The malt tax in the financial year 1897—1898, yielded kr. 3,807,058.

The *stamp duty* is paid on different kinds of private documents. It is levied on documents relating to the transfer of real property or of vessels, or to the right of using real property for a time not less than one year. Drafts and other letters of credit do not require any stamp. The tax in 1897—1898 yielded kr. 1,158,382.

The stamp duty on playing-cards amounts to 60 øre on each pack of cards, and in the above mentioned year amounted to kr. 78,630.

Departmental and judicial fees are paid to the Treasury for different judicial and administrative transactions. These fees during the same year amounted to kr. 1,113,936.

Among the *assets of the Treasury* are included the invested capital and funds of the Treasury, among which may be especially mentioned the stock capital of the Norwegian Mortgage Bank, the shares in the Bank of Norway belonging to the state, and the working capital of the Kongsberg Silver Mines; furthermore there are the outstanding claims of the Treasury, its shares in

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. 828,375, 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 31 $\frac{1}{2}$ % 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-

perty 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	54,474,300	38,750,742	93,225,042
1892	72,490,432	46,414,065	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 Thronthjem, but

*) 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

SINCE 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 «Oplysningsvæsenets 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-

ments 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 Schröder (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.

BIBLIOGRAPHY.

T. H. ASCHEHOUG. *Norges nuværende Statsforfatning*. 2 Udg. Kristiania 1892. (Vol. II., p. 476—91).

Reports (6 in all) from the Royal commission, appointed Oct. 4, 1890, and especially:

Indstilling til Lov om geistlige Embedsmænds og Kirkesangeres Lønninger. Kristiania 1894. (Sth. Forh. 1896, 3 D. b, No. 21).

Indstilling til Lov om Kirker og Kirkegaarde. Kristiania 1896. (Sth. Forh. 1897, 3 D., No. 28 .

EDUCATION

I. ELEMENTARY INSTRUCTION.

THE 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:

Lessons in the School-week.												
Subjects	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.			5th Cl.	
					1st Cl.	2nd Cl.	3rd Cl.	1st Cl.	2nd Cl.	3rd Cl.		4th Cl.
Religion	8	9	7	7 ¹ / ₂	7	7	7	7	7	7	7	7
Norwegian	8	7	8	7	8	7	7	10	8	7	7	7
Arithmetic	5	6	5	6	5	6	6	4	5	5	5	6
Geography		2		2		2	2			2	2	2
History	2	2	3	2	3	2	2	2	3	2	2	2
Science		2		2		2	2			2	2	2
Writing	5	4	5	4	5	4	2	5	5	4	3	2
Singing	2	2	2	2	2	2	2	2	2	2	2	2
Manual Work				2		2	2			2	2	2
Drawing		2		2			2			1	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 parantheses 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.							Total
	1st Division			2nd Div.		3rd Div.		
	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 (5)
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	12,701	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 sloid 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* (folkehoiskoler) 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,

*) 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, sloyd, 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 (rektor) 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.

*) 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. HOVEN'S Bequest (about 370,000 kr.), BENNECHE'S Bequest (about 80,000 kr.),

SCHÆFFER'S Bequest (about 60,000 kr.), FINNE'S Bequest (about 80,000 kr.), HENRICHSEN'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 «skolehjem». 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, Ulfnesøen 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.

BIBLIOGRAPHY.

Norges officielle Statistik, and especially:

No. 319. *Beretning om Skolevæsenets Tilstand i Kongeriget Norge for Aaret 1895*. Kristiania 1899.

Universitets- og skoleannaler. Yearly.

Udkast til Lov om Universitetet med Motiver. Kristiania 1890. (Sth. Forh. 1891. 3 D. a, No. 14).

Indstilling fra den ved Kongelig Resolution af 14de November 1885 til Revision af Lovgivningen om Folkeskolerne paa Landet og i Byerne nedsatte Kommission. Kristiania 1887. (Sth. Forh. 1888. 3 D. b, No. 20).

Forslag til en forandret ordning af den høiere almenskole af den ved kgl. resolution af 3die september 1890 nedsatte kommission. Kristiania 1894. (Sth. Forh. 1896. 3 D. a, No. 8).

Odelsthings Proposition angaaende Udfærdigelse af en Lov om Behandlingen af forsømte Børn. Med Bilage. Kristiania 1896. (Sth. Forh. 1896. 3 D. a, No. 6).

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, «ledingen», 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 «lægder», 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 depôt 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 depôts.

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 *ГОТЧКИСС* 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 requisition.

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.

BIBLIOGRAPHY.

Norsk militært Tidsskrift. Kristiania 1831 ff.

DIDRIK SCHNITLER. *Blade af Norges Krigshistorie.* Kristiania 1895.

THE NAVY

IN 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 skjær-gaard.

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.

BIBLIOGRAPHY.

Norsk Tidsskrift for Søvesen. Horten 1883 ff.

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*) 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
Total, Norway	124,525	100.00

*) 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

as a desret 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)	27,549	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	8.68	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

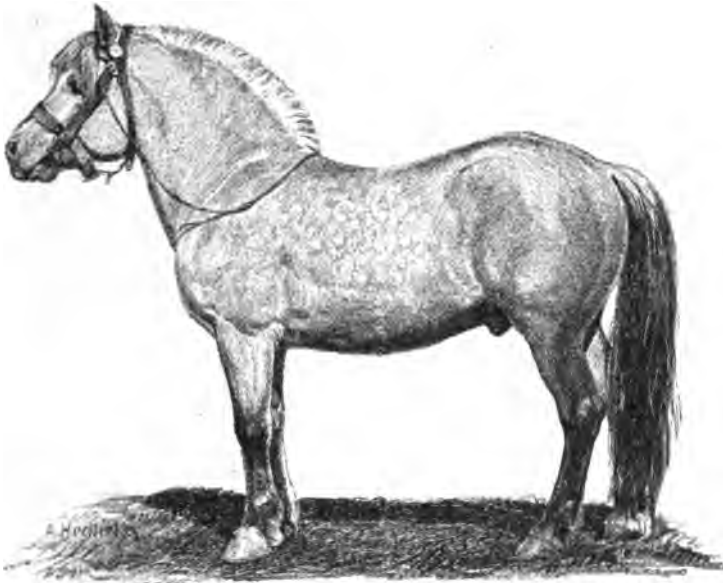
Meadow cultivation has made great progress in Norway during the last few decades. When the soil has been utilised for grain fields for three years, it is as a rule again laid out as meadow, a mixture of different seeds being used, among which timothy and clover play the most prominent part, and in which 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-

daalen 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

mentioned breed of cattle. The coast cattle are smaller. The live weight is from 450 to 550 lb. They are not very typical either with reference to shape or colour but are peculiar in their ability to subsist upon scanty pasturage.

The Norwegian *sheep* are also, upon the whole, small and slender. The live weight on an average hardly reaches 90 lb. for adult animals. The rams have small and slightly spiral



Telemarken cow.

horns, a short neck and fine wool. The colour may be black, white or mottled. During the last few decades, the Norwegian sheep has been very much crossed with foreign breeds, especially Scotch Cheviots, black-faced, English Oxfordshire, and during earlier times also with Spanish merino. Of these the Cheviot gains an ever-increasing popularity in the real sheep districts.

Although the *reindeer* cannot strictly speaking be called a domestic animal, it is kept in a domesticated condition by the Lapps. The reindeer belongs to the cervine genus and has long branched horns which are shed annually, but grow out again. It is a little

more than a yard in height and has a live weight of about 260 lb. Its chief food is the reindeer moss which, during the winter time, it scrapes out from under the snow with its broad strong hoofs. It provides the Lapps with meat, milk, skin, etc., and the largest bucks are also used as draught-cattle during their constant wanderings. The Lapps roam on the highest mountains above the tree limit, and it is only during the winter that they come down every now and then into the lower districts, where



Telemarken ox.

the reindeer herds do much damage to the forests. The Lapp family that is to live on its herd of reindeer must have at least two to three hundred head; and many have a thousand or more. To guard their animals the Lapps use their well-trained dogs which are of the same breed as the Eskimo dog. At the latest census there were altogether 170,000 reindeer in the country, but the number is now increasing, as several of the peasantry have also commenced to keep reindeer herds on the mountain pastures.

In connection with the cattle-raising industry, we must say a few words about the dairy industry. Thirty or forty years ago



Herd of reindeer.

THE NEW YORK
PUBLIC LIBRARY

TILDEN, LENOX AND
TILDEN FOUNDATIONS



Norwegian winter.

Picture by Fr. Borgen.

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS.

almost all the butter and cheese produced in this country was made on the individual farms, but about that time the farmers commenced to establish co-operative dairies carried on according to the so-called cold-water system by which better and more uniform products were obtained. These co-operative dairies now exist in about one half of the parishes of the country to the number of 650; and it is estimated that they deal with somewhat more than 220,000 gallons of milk daily. Most of them are provided with separators and an entirely up to date equipment; and the yield is partly sold in the English market at the highest prices there obtainable. Cheese dairies exist in a smaller number around the Kristiania Fjord and the Trondhjem Fjord, but they have not as yet succeeded in producing a cheese which satisfies the requirements of foreign markets. At Hamar, Kap on Toten and at Sannesund there are large milk-condensing factories, of which the production goes almost entirely to foreign markets.

Many of the farmers in the valleys and on the plains are owners of portions of the more or less barren mountain plateaus where during the summer good grazing may be found.

Here we find the *Seter* or mountain outfarms which are characteristic annexes of many of the Norwegian farms.

When the spring field-work at home has been finished and vegetation in the mountains has progressed so far that the animals can find the necessary food, the dairy-maid, and in certain districts the farmer with his whole household, goes with the cattle to the outfarm. The latter may be 10, 30 or even 50 miles distant, and sometimes it requires several days to reach this destination through trackless regions. The houses are as a rule small and low; one for the domestic animals, another serving as dwelling for the family, and also containing the dairy, and finally, one or more small hay-lofts. In the immediate neighbourhood of the houses, a piece of the ground has been cleared and fenced in, and here the manure gathered in the course of the summer is spread. A fine and nourishing grass grows here which is mown, and in the course of the winter brought home to the farm. During the two or three months the cattle stay at the outfarm, butter and cheese are produced. About the first of September, when the cold nights commence to make themselves felt in the mountains, the dairy-

maid with the herd and the product of the sæter returns to the home farm.

The gross return of the live stock industry is generally estimated at a value of about 140,000,000 kroner which, added to the before-mentioned 70,000,000 kroner, being the yield of agriculture, gives an aggregate gross income from Norwegian husbandry of rather more than 200,000,000 kroner.



Ancient farm.

The erection of the buildings on Norwegian farms is relatively expensive on account of the severity of the winter. All kinds of domestic animals must have good warm houses, and we cannot, like farmers of more southern countries, stack our hay and grain, or keep our root-crops out in the field during the winter. We must have houses for everything. In former days it was very common to build a multitude of small houses, each fitted for its own special use, clustering round the court-yard; while of late it has become the rule to limit the number of houses on a common farm to four. The main building is the dwelling-house,

its size and the number of its rooms being generally regulated by the needs of the farm, and the larger or smaller requirements of the owner. As a rule there is under the whole house a cellar for storage of the root crops needed for the household, as well as for other stores. The main building also contains a kitchen, a pantry, one or more parlours and sleeping-rooms and guests' rooms. It is always built of logs, generally wainscoted on the inside, and built in one or two stories, according to the size of the farm and the custom of the district. Near the main building, but separated from it, there is, as a rule, another building containing the laundry, room for the hired help, and also accommo-



Modern farm.

dation for the winter store of fuel. The out-building, properly so-called, gives accommodation for the animals, of which each kind has its separate compartment, and also for hay, grain, threshing implements, etc. The manure is well housed either in the cellar below, or sheds open at the sides so that, in our wet climate, it may not lose its strength from exposure to the weather. In more modern out-buildings there is, as a rule, at a certain distance from the floor, often quite up under the gable, a waggon bridge running through the whole length of the building. The hay as well as the unthreshed grain is driven in here and easily removed from the waggons into the barn below, where it can thus be well packed, and requires little space. The out-building, like the other edifices, is built of wood, except the walls of the stable which are sometimes made of stone or brick. The so-called

«stabbur», or store-house on posts, is a typical Norwegian building, and is destined for the storage of such provisions as can be preserved, e.g. grain, flour, cured pork, meat, herring and other fish, «fladbrød» (a sort of bannocks), butter, cheese, etc., and in some parts of the country also such clothing and bedding as is



Stabbur.

not in daily use. The stabbur is as a rule divided into two stories, of which the top one is used for grain, and the lower one for other food products. In order to prevent vermin from entering the house it is built upon massive posts at a height of 1 or $1\frac{1}{2}$ yards above the ground. In several of the mountain valleys there is a gallery of more or less artistic design before the front door of the stabbur. On many farms, especially

in the more thinly populated districts, there is a smithy, sometimes in connection with a carpenter's shop. On account of the small size of the farms and their often isolated situation, the artisan's work is here, to a much greater extent than in southern countries, performed on the farm itself; and a Norwegian farmer will, as a rule, be able personally to make many of the repairs of different kinds that are needed. As an average for the whole country, it is estimated that the cost of the buildings is about 30 % of the value of the estate, including also that part of the value which consists of forestry, fishery, etc.

The price of farms in Norway has been increasing, even at times when husbandry has been depressed by the low prices its products fetch, the high wages, taxes, etc. As the standard of valuation for the properties, we use the sale-price according to skyldmark (standard of assessment). It was during

the years 1866 to 1870	kr. 1,158
» » 1871 » 1875	» 1,309
» » 1876 » 1880	» 1,491
» » 1881 » 1885	» 1,588
» » 1886 » 1890	» 1,610
» » 1891 » 1895	» 1,700

In 1896 it was kr. 1676 and in 1897, kr. 1695. While the price of land in most European countries has been decreasing, in Norway, as will be seen from the above table, it has been maintained or has increased. The causes of this are probably several. Here the farms, on the whole, are small, and the fall in prices of landed property has chiefly affected the larger estates; moreover Norwegian husbandry, probably to a larger extent than in most other countries, is combined with other means of livelihood, such as forestry and fishing; and when times have been favourable for the latter, this has also benefited husbandry. Finally, times on the whole, during the latter part of the period spoken of above, have been good in the country, as far as money is concerned, and this, as a matter of course, has reacted on the prices of property.

In the course of the last twenty or thirty years the state has by several measures tried to benefit agriculture. Such measures are under the supervision of a managing director working under the Department of Agriculture. Public grants for the advancement of husbandry may be divided into the following

five chief items: the agricultural budget properly so called, the Agricultural College, veterinary matters, the allotment authorities and the Royal Society for Norway's Welfare.

The *agricultural budget* is balanced with an expense of 800,000 kroner, including the salaries of a staff of state functionaries, grants in favour of agricultural, dairy, and horticultural schools, laboratories of different kinds, contributions to the agricultural societies of the counties, etc.

The *Agricultural College*, since its establishment in 1859, has been connected with the model farm at Aas near Kristiania. Up to the year 1897, advanced instruction was here given only to agriculturists, but in the above-mentioned year the school was enlarged so as to become also a college for gardeners, dairy farmers, surveyors and foresters. The Agricultural College is managed by a director, and the staff of teachers consists of nine professors and ten instructors and assistants. The annual state contribution on the ordinary budget amounts to about 100,000 kroner.

Civil *veterinary matters* are also managed by a director who is at the same time the manager of the veterinario-pathological laboratory of the state. The state and county veterinarians are under his guidance, as also the public tuberculin examinations, the courses of instruction for veterinarians, quarantine stations, etc. Norway has not as yet a separate veterinary college, but the establishment of such an institution is under discussion. The annual government grant to veterinary institutions amounts to about 130,000 kroner.

For the advancement of the *public allotment* there have been appointed 44 chief surveyors with a staff of assistants. The whole salary and travelling expenses of the staff are paid by the state, and thus the expenses for the interested lot-owners become relatively small. As it is often necessary, as a consequence of an allotment, to remove houses, there is on the annual allotment budget a standing grant of 50,000 kroner, for the purpose of rendering assistance to needy lot-owners; while the total amount of the budget is 250,000 kroner.

The Royal Society for Norway's Welfare is the central agricultural society of the country, while all the county agricultural societies are its subordinate branches under whose direction the parish or district societies in their turn are working. The purpose

of the society is to advance agriculture and kindred pursuits, and to defray the expenses connected therewith, it has the interest of its capital, which at present amounts to about 270,000 kroner, membership subscriptions to about 3000 kroner, and an annual government grant of from 30,000 to 40,000 kroner. The society, among other things, furthers its object by publishing a monthly periodical.

Furthermore, there are certain minor public funds intended for the advancement of agriculture. Among these we may mention the *fund for buying land*, amounting to 500,000 kroner, out of which loans are granted to the municipalities for the purpose of buying large estates to be assigned to people without means, at the purchase price, in plots of not more than 12 acres of tillable soil; and for the purpose of being granted as loans on the security of parcels of the same size, which people without means intend to acquire as freehold property. The interest paid on these loans, which may not be made to any single community to a larger amount than kr. 25,000, is $3\frac{3}{4}$ 0/0, which percentage, in the case of loans granted to purchasers of the parcels, may be raised to 4 0/0. The time of payment is up to 25 years.

Out of the *cultivation fund*, which amounts to kr. 1,000,000, loans are granted for the purpose of cultivating and draining soil, at an annual interest of $2\frac{1}{2}$ 0/0, and the time of repayment is up to 20 years, including five years in which no instalments are required. These loans are granted either on the security of mortgages, or on the guarantee of the municipality.

BIBLIOGRAPHY.

- Norges officielle Statistik*, et especially No. 217, 244, 314 et 315.
Aarsberetning angaaende de offentlige Foranstaltninger til Landbrugets Fremme.
 Kristiania 1875 sqq.
Norsk Landmandsblad. Kristiania 1882 sqq.
Tidsskrift for det norske Landbrug. Kristiania 1894 sqq.
 J. SMITT. *Norges Landbrug i dette Aarhundrede.* Kristiania 1883.
 G. TANDBERG. *Kortfattet Veiledning i Bygningsvæsen paa Landet.* 2 Udg.
 Kristiania 1890.
 A. HELLAND. *Jordbunden i Norge* (Norges geologiske Undersøgelse No. 9).
 Kristiania 1893.
Forslag fra den parlamentariske Landbrugskommission til Ordning af den lavere Landbrugsundervisning. Kristiania 1898 (Sth. Forh. 1898—99 D. 5, No. 44).

FORESTRY

OF the total area of the country, which is 124,495 sq. miles, about 3 % are represented by towns, grain-fields and meadowland, while about 76 % are represented by outfields, grazing land, bogs, bare rock, snow fields and glaciers; the remainder, 21 % or 26,324 (or with the towns 26,340) sq. miles, is considered to be covered by forests.

In southern Norway there are a few scattered and very small forests, consisting of deciduous trees of those species which cannot well withstand the influence of cold, such as beech (*Fagus sylvatica*), oak (especially *Quercus pedunculata*), and elm (*Ulmus montana*), but these are of little importance for the silviculture of the country. The beech occurs wild as far north as the 61st degree of latitude, but it only forms forest around the town of Larvik and in a few other places. It attains a height of somewhat more than 80 feet. The oak is found wild as far north as the 61st degree, in the interior of the country, near Lakes Mjøsen and Randsfjord, and up to the 63rd degree on the coast. It may reach a height of between 100 and 130 feet, and now forms a few scattered smaller forests on the southern and eastern coasts; but in former days it occurred much more extensively. The elm grows all over the country up to the polar circle, but only in one single place there is a small elm forest. It may attain a height of somewhat more than 100 feet. The real forest trees of the country are the Scotch fir (*Pinus silvestris*; in Norwegian called «furu»), spruce (*Picea excelsa*; in Norwegian called «gran») and birch (*Betula verrucosa* and *odorata*). With the exception of the spruce which, apart from a single valley, Saltdalen, hardly forms



Sketch by N. Hansteen.

Norwegian forest.

NEW YORK
LIBRARY
FOR LENOX AND
TILDEN FOUNDATIONS.

forests north of the polar circle, these trees grow all over the country, sometimes in an unmixed continuous forest, covering large stretches, but more commonly mixed with each other, or with sporadic representatives of other species of trees. If we were to make a comparison with the forest growth of the other countries of northern Europe, there would, as a general rule, be little more to be said about the Norwegian forests than may be said about all plants which attain full development in this country, and are acclimatised. It has been observed that the same species of trees here produce mature seed at an earlier age than in more southern countries, and that this seed which, at least as far as concerns the pine and spruce, is of smaller size and less weight than foreign seed, and constantly decreases the farther north it is produced, yields a more hardy plant. Our forests may be considered, on the whole, as more capable of reproduction and more easily grown than might be expected in a mountainous country within the polar circle; and the trees reach a certain degree of development, and are able to form forests farther north than probably anywhere else in the world. As far as growth and general condition are concerned, our forests present a highly varied picture. Besides the soil, which varies greatly in quality in this ice-ground country, there are a number of other circumstances which, each in their own way, influence the forests. In the article entitled «Plant-Life», these conditions have been stated at length for the whole vegetation of the country, and in the same article information is given about the occurrence, limit of growth, etc., of the forest trees. As a forest country, Norway naturally falls into three parts — the country north of the polar circle, the western coast region, and the inland region south of the polar circle. The inland forests differ again in several respects, — for instance, with reference to the height above the sea-level at which the limit of vegetation occurs, and the more or less frequent occurrence of the spruce as a forest tree, or, according to whether they are situated in the northern or south-eastern part of the country.

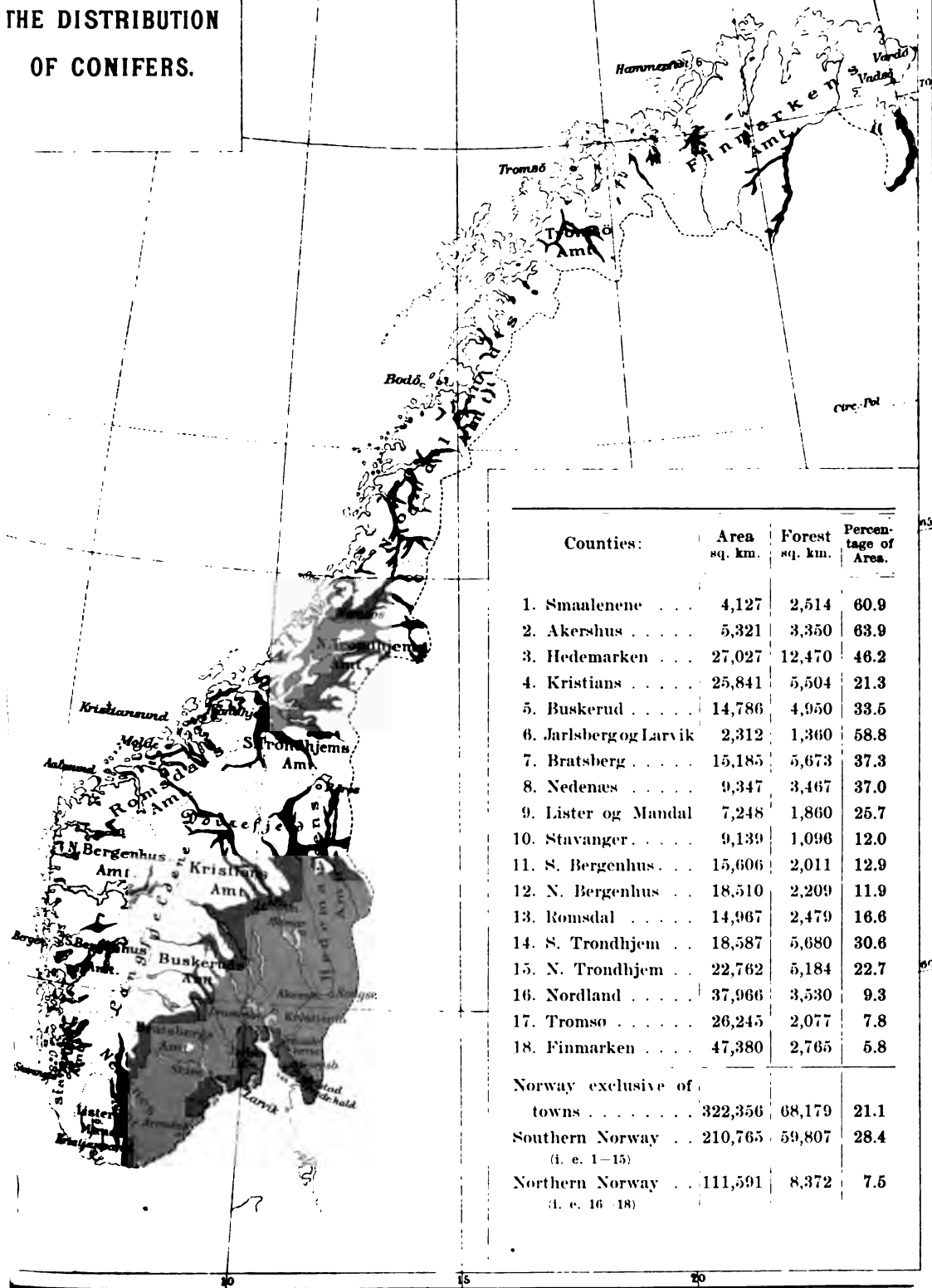
North of the polar circle, the birch is predominant, on the coast as well as in the interior, and forms the great bulk of the forests. Of spruce some scattered and lonely individuals appear as far north as $69^{\circ} 30' N.$ Lat., while the pine forms quite considerable forests, the most northern forests in existence, as far

north as the 70th degree of lat. The country within the polar circle which has an area of 36,081 sq. miles, has 2265 sq. miles, that is to say somewhat more than 6%, of forest, and less than $\frac{1}{2}$ % of fields and meadows. Vast tracts of this region — the country of the midnight sun, properly so called — are entirely desolate, only traversed every now and then by the nomadic Lapps, with their reindeer flocks. The mountain plateau of Finmarken, and to a certain extent also the islands, have for a long time been almost devoid of forests. But as late as the beginning of the 18th century, when the settlement of these regions first commenced in earnest, dense forests (birch and in part pine) were found in several places in the open, evenly-sloping valleys, and at the heads of the large fjords.

South of Saltdalen (about 67 degrees N. Lat.) and outside the polar circle, the forest changes character. The coniferous trees become more prominent, and form the forest-covering of the wooded plains and the lower hills down to the very southernmost part of the country. (See the chart of conifers with a tabular statement of the coniferous and deciduous trees of the country, according to Prof. HELLAND). In the eastern and southern parts of the country, these trees cover the mountain slopes, up from the cultivated fields and the home pasturages at the bottom of the valleys, and are replaced, at a height of 2600 feet above the level of the sea, by birch forests, which in their turn disappear at the height of 3200 to 3600 feet above the level of the sea yielding their place to the shrubs of the mountain plateau, the dwarf birch (*Betula nana*) and willow (*Salix*).

The coastland may be considered almost as devoid of forests, from the southern point of the country to the Russian frontier on the Arctic Ocean. A great part of the country west of the Dovrefjeld and the Langfjeldene is taken up by this coast, which retains its barren and naked aspect far into the many deep-cut fjords. It is true, in islands and on promontories where protection is afforded from the sea-winds, some small forests may still occur, which reckless treatment has not yet been able to destroy; but the bulk of the forest is found, as is also shown by the chart, farther in in the interior of the country, at the heads of the fjords and in the valleys which form their continuations, and on those wide isthmuses where the climate approaches a continental one. The western part of the country, however, is poorly provided with

**MAP SHOWING
THE DISTRIBUTION
OF CONIFERS.**



Counties:	Area sq. km.	Forest sq. km.	Percentage of Area.
1. Smaalenene	4,127	2,514	60.9
2. Akershus	5,321	3,350	63.9
3. Hedemarken	27,027	12,470	46.2
4. Kristians	25,841	5,504	21.3
5. Buskerud	14,786	4,950	33.5
6. Jarlsberg og Larvik	2,312	1,360	58.8
7. Bratsberg	15,185	5,673	37.3
8. Nedenæs	9,347	3,467	37.0
9. Lister og Mandal	7,248	1,860	25.7
10. Stavanger	9,139	1,096	12.0
11. S. Bergenhus	15,606	2,011	12.9
12. N. Bergenhus	18,510	2,209	11.9
13. Romsdal	14,967	2,479	16.6
14. S. Trondhjem	18,587	5,680	30.6
15. N. Trondhjem	22,762	5,184	22.7
16. Nordland	37,966	3,530	9.3
17. Tromsø	26,245	2,077	7.8
18. Finmarken	47,380	2,765	5.8
Norway exclusive of towns	322,356	68,179	21.1
Southern Norway (i. e. 1-15)	210,765	59,807	28.4
Northern Norway (i. e. 16-18)	111,591	8,372	7.5

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

forests in comparison with the inland district lying outside the polar circle, and especially that part of the country lying south and east of the mountains. If we consider the county of Romsdal, the two Bergenhus counties, Stavanger county and the districts of Lister, as belonging to the western part of the country, then we find that out of the area of the West Country, which is 24,072 sq. miles, only 3,233 sq. miles, or 13 %, are covered by woods. That part of Norway which lies south and east of the mountains, and has an area of 41,322 miles, has 15,659 sq. miles, that is to say, about 38 %, of forest. The forest trees of the west of the country are pine and birch; the spruce is very rarely found wild, as a rule only as scattered individual trees; and it hardly forms forests outside the inland district of Voss situated about 40 miles east of Bergen.

The tabular statement shows that the forests of the country are of extremely uneven distribution. A glance at the forest chart will furthermore show that this distribution has been greatly dependent upon the geographical situation of the districts, whether within or without the polar circle, inland or on the coast. Some regions have copious forests, others are entirely devoid of them. If a fairly correct picture of the forests of the country be desired on the basis of the forest chart, it must be remembered that as far as the inland region is concerned, the birch often occurs as a forest tree, both in the outfields of the farms, below the conifer forests, and in the belt above, up to 650 feet higher than the latter, and also that it is the most important forest tree in the northern part of the country, and in large parts of the coast country. Of Finmarken, which is the northernmost, and at the same time the largest, county in the country, 5.8 % is covered by forests; among the southern counties, the inland county of Akershus has 63.9 %, while the coast county of Nordre Bergenhus has only 11.9 % of forest. The inland county of Hedemarken has the largest forest area, this being 4813 sq. miles or 46.2 % of the total area of the county, while the coast county of Stavanger has the smallest forest area, namely, 423 sq. miles, or 12.0 %. It is calculated that about one fourth of the districts of the country have a surplus of forest, one fourth have sufficient for their own use, and the remaining two fourths are obliged to buy. About three fourths of the districts, however, have sufficient to provide their own fuel. Prof. HELLAND has given very valuable

information about the extension, nature, production, etc. of the forests, both in the various districts of the country, and in the tributary districts of the various rivers. These matters, which, on account of the lack of uniformity in the nature of the country, present peculiar difficulties in their study, cannot here be treated in detail; moreover, the forest statistics, on several points, are still rather a neglected subject in this country, inasmuch as it is necessary to a large extent to build upon approximate estimates, no detailed information being available.

Both the annual production and the new growth vary greatly. The production is estimated at 344,000,000 cub. feet for the whole country, or 203 cub. feet per acre forest. Of this quantity, about one fifth is exported, the rest consumed in the country. With a population of about 2,000,000 there is an annual average consumption for each individual in the country of 137 cub. feet, and a forest area of 8.42 acres. In the fifteen southern counties (see the chart, nos. 1—15), the new growth varies from 22.8 cub. feet per acre in the south-east of Norway, to 18.2 cub. feet in the West Country and in southern Trondhjem county, and 11.4 cub. feet in northern Trondhjem, and for the whole fifteen counties it amounts on an average to 20.7 cub. feet per acre of forest. But, at the same time, the cutting down of the forests, in these same counties, is estimated at 21.7 cub. feet to each acre of forest. In the three northernmost counties also (chart, nos. 16—18), the cutting down goes on somewhat faster than the growth. The result is that on an average for the whole country the forests are made to yield more than their annual new growth.

Nor has the ratio in which our most important forest trees occur been very thoroughly examined into. It is presumed that about three fourths of the forest area of the country is covered with conifers, and one fourth with foliage trees. The pine, the original coniferous tree of the country, may still be considered as very prominent in the great forests in the southern parts of the country, and on the slopes of the Dovrefjeld. But from this point (about 62° N. L.) to the polar circle and in the south-eastern part of the country the bulk of the forests consists of spruce which has immigrated later across the low mountains forming the frontier towards the east, and now forms extensive forests out to the very coast line. The limit of the pine, as a rule, is about 330 feet

higher than that of the spruce; but in some places it has been observed that the spruce grows up to the same height above sea-level as the pine and in the districts near the Swedish frontier even higher.

As already stated, the time required by the conifers to reach timber size varies greatly in this country, where climatic and other conditions vary so very much on account of the great distances and the ruggedness of the country. In Southern Norway the pine, when from 75 to 100 years old, is as a rule sufficiently large to yield timber of from 23 to 25 feet in length and 9 or 10 inches in diameter at the top. The spruce can, under favourable conditions of growth, yield timber of the same size somewhat earlier, and may be ripe for cutting down at an age of 70 or 80 years. But for the whole country, the period of growth for trees ripe for felling, may be placed somewhat higher, namely, for the pine at about 150 years, and for the spruce at 120—150 years. In the mountains and in the northern part of the country, the period of growth may be extended to 200 years and more. The height rarely exceeds 100 feet, and it decreases towards the coast and northwards, in such a manner, however, that in the northernmost pine forests of the country, in the 70th degree of latitude, the height of the trees may still be 60 or 65 feet. Seeding years, as a rule, come for the pine and the spruce at intervals of three or five years, generally more frequently in the southern part of the country, and more rarely in the northern. The germinating power of the seed is great, often more than 90 %. Our coniferous trees satisfy for the greater part the needs of the country, as far as concerns building material, fuel and material for fencing. Of the timber intended for sale, considerable quantities are sold abroad, partly as round timber (spars, pit props, etc.), partly as barks, partly prepared, as sawn or planed timber and staves. The still further improvement of export timber has of late been tried with great success, and a market has been found abroad for entirely completed building material, windows, doors, etc. The Norwegian spruce contains a relatively small quantity of resin, and is therefore increasingly employed in the production of mechanical and chemical wood pulp, an industry which has gradually gained such importance, that in some places it has begun to threaten the very existence of the forests. The spruce bark is used for tanning. In many places of the country

tar manufacturing is carried on as an additional industry, and for that purpose pine roots are used.

Two species of birch occur as forest tree — lowland or white birch, and mountain birch. The mountain birch grows everywhere in Norway, as far north as the country extends. Its limit is somewhat more than 650 feet higher than that of the pine. In the southern part of the country, both species of birch are found together, as a rule mixed with other trees; and they only form uniform continuous forests in the mountains and in the northern part of the country where the coniferous trees cannot spread and multiply. With its light colour, however, and its delicate drooping branches, the birch is also rather prominent in the lowlands. It brightens up the dark coniferous forests, and appears in groves scattered between farm fields and grazing-lands. These birch groves often determine the character of the landscape, on account of the animation and variety which they produce. It is only in the most northern countries that the weeping birch («the lady of the wood») attains its full beauty. In our country it is not only one of the most beautiful trees, but also one of the most useful. The wood is used as fuel and as material for many kinds of tools, vessels, staves, etc.; the inside bark for tanning purposes, and the outside bark especially for covering roofs; and finally, the leaves are fodder for cattle. The tree probably requires, on an average, a period of from 80 to 100 years for its normal development, and may attain the height of 80 feet with a diameter, at breast height, of about 5 feet. In the mountains and in Finmarken, the birch as a rule is reproduced by ground shoots, more rarely by seeds. In addition to the birch, other foliage trees grow in the lowlands, partly as ornaments on the home fields around the farms, but especially in the grazing fields and grass meadows, where, together with the birch, they form groves, but rarely real woods. Of such trees may be mentioned the aspen (*Populus tremula*) of which the wood is used in manufacturing matches, the rowan (*Sorbus aucuparia*), willow (*Salix*), alder (*Alnus incana* and *glutinosa*), hazel (*Corylus avellana*), ash (*Fraxinus excelsior*) which is considered especially adapted as material for manufacturing «ski» (Norwegian snowshoes), lime (*Tilia parvifolia*), maple (*Acer platanoides*). The foliage and bark are to some extent fodder for cattle.

The value of our export of forest products and of the timber industry for the year 1897 is estimated at 62,000,000 kroner.

Work in the forests is hard and often dangerous, and requires strong and hardy men. Consequently a relatively large number of timber workers are single men, still in their youth. According to the last census of 1891, there were then 19,451 persons in this country, earning their livelihood by working in the forests. The felling of timber takes place in the autumn and winter, beginning from the middle of September, or somewhat later. The large forests, as a rule, lie far away from the inhabited districts, and the timber cutters and drivers have to live in huts built for the occasion, the interstices being filled and the roof covered with pine needles and branches, moss, etc. Week after week may be spent by them in the forests, in the hardest frosts, the work being interrupted only once in a while by a Sunday visit down to inhabited districts on ski. They do their own plain cooking in their log hut, where a flaming log-fire heats the room during the night and cooks the meals. The horses are also subject to great hardships, and it is fortunate that the Norwegian horse is hardy and enduring. Of late it has become more general to put up a kind of a stable, but often the horses have to remain outside in the winter's cold, covered with a woollen blanket; and if it is too cold for this, it is necessary to keep on driving during the night also. The timber is stripped of its bark and collected in convenient places; and when the snow is sufficiently deep, and the bogs are frozen, it is then dragged to some river, as a rule a tributary to a larger water-course used for drifting timber, where it is piled in great heaps. Here, on the bank of the river or on the ice, it is as a rule «accepted» by the purchaser or his timber marker, and is stamped or marked with the marking-axe or stamp of the purchaser. In the spring, when the ice is broken and the snow melts, the timber is turned into the river and carried on the freset to the main river, where thousands and even hundreds of thousands of logs may float simultaneously, each log as a rule floating by itself. In waterways which have been canalized and over lakes, it is often the custom to float the timber in rafts. The river-drivers must be quickwitted and hardy men, who can carry on their work night and day, if necessary; they must also be experts in their work, and familiar with the waterway. They must regulate the letting out of the timber so that no more is turned into the river at once than it can carry; and they must see that the logs do not go ashore anywhere, or stick in the

narrow rapids between the rocky banks or on rocks, points or sandy bars in the river. If a log has been allowed to stick fast across the course, increasing quantities may be piled up, to the number of thousands of logs, stopping everything that comes down, and finally preventing, not only the floating, but even the free course of the water. Sometimes the pressure of the increasing bulk of water may cause the infiltrated timber to yield, and the loosened heap breaks forth on a wild and rampant course, breaking and splitting the timber that comes in its way, and often continuing its wild course for long distances down the rivers, menacing or destroying factories, bridges, dams, and all kinds of constructions on its way. As a rule, however, the river-drivers must interfere. Stepping out on the loose logs, and balancing on them, they loosen one log after another by means of their boat-hook, until at last the whole remaining bulk of timber is put into motion, when the vital question for the timbermen is to save themselves. In the narrow channels and the smaller waterways it is, as a rule, a single log or a few logs that block up the tangled mass of timber. To discover the hindering logs and cut them, is often a very hazardous task. If the bank of the river is steep and high, the driver is tied to a rope or he may be put into a kind of harness and tied with ropes to both banks of the river, so that his fellow workmen by tightening the rope can lift him up and pull him ashore, as soon as the tangled mass of timber is loosened. The rivers also form eddies and whirlpools under the waterfalls, where the timber accumulates and moves in a circle, and here, too, it may sometimes be necessary to remove it log by log. Timber-merchants and forest owners work in the big waterways for a common account. The expenses are divided, and matters of common concern are settled by a chosen administration. These timber-floating associations are of great importance for forestry as well as for the timber business, and are dealt with in a separate chapter of the general act of July 1st, 1887 relating to waterways. It is important in several respects to have the timber conveyed quickly, the more so as, if it is left in the river through the summer, it is either liable to crack, in dry summers, or to become saturated to such a degree that it will sink. The waterways serving as the means of transport for timber, have therefore been cleaned, dams have been built in the lakes and ponds in order to accumulate water, bulkheads have been con-



Timber floating in a tributary river to Glommen.

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS.

structed, and protective measures of various kinds executed, and booms have been laid partly to regulate the flow, partly to collect the timber and sort it according to the several marks. By means of shoots blasted out of the rock or constructed of wood-work, an attempt has been made to get past waterfalls, where the timber would otherwise be liable to be destroyed or injured, in an easy and cheap manner. Timber shoots, dry or aquiferous, are also employed in order to carry the timber down mountain slopes and across rugged ground and wherever transport by means of horses would not be practicable, or at least would be too expensive.

Historical records, as well as investigations of the soil, especially of the bogs, give us the certainty that Norway in former times had much more forest than it has now. It is on the mountains and the coast especially that the forests have disappeared. As far north as the 62nd degree of latitude, pine roots and actual remnants of forest are found in bogs which may be situated more than 330 feet above the highest limit of the pine at the present time. To mention an instance, the records show that in the neighbourhood of the present mountain town of Røros, so dense and luxuriant a pine forest was growing about three hundred years ago that it was necessary to blaze a path with an axe across regions which no later than the end of the eighteenth century had to be considered as devoid of forest. In other places, for instance in the table-land of the Dovrefjeld, the pine has been partly supplanted by the birch. But even the birch forest has to a certain extent had to yield and withdraw from the highest mountain slopes. Our knowledge of forest matters during earlier times is, however, rather defective. The exportation of timber and forest products was hardly of any importance before the Hansards, in the fourteenth century, commenced to appropriate the commerce of the country, and it only assumed a more considerable extent through the commerce in the sixteenth century with the Dutch, and in the seventeenth century also with the Scotch and English. It is probable, that the coast forests in the west and south of the country were cut out about this time, and this was particularly the case with the splendid oak forests, so that from about the middle of the seventeenth century it became necessary to commence cutting in the nearest inland parts. At the same time the mining industry was making rapid progress, and for the last three hundred years has consumed exceedingly

large quantities of timber. These circumstances, in addition to forest fires, injury caused by insects, and the increasing consumption caused by the increase of the population and the demands of trade, have been the constant cause of the gradual disappearance of the forests of the country, while imprudent or reckless cutting, excessive grazing and similar circumstances, have prevented their recovery by growth, the consequence being that the forest-land in the weather-beaten regions of the country has been turned into a desolate wilderness, as may now be seen along the coast and on the bare plateaus of the mountains. The outfarming in the south, and the breeding of reindeer in the north continue this work of destruction this very day. Attention was early called to the disappearance of the forest, and since about the middle of the sixteenth century attempts have been made to stop the devastation by different legal enactments, especially directed against the cutting for export sale, and against the free carrying on of saw-mills. Most of these restrictions, which often combined heavy penalties with unreasonable and impracticable regulations, were repealed in 1795. The saw-mill privileges, however, were only done away with in 1860. The wood industry since that time has been free. Every private person has been able to treat his forest as he pleases; and this freedom, combined with the improved communication and the high timber-prices, has caused many a mountain forest to be permanently destroyed, and many a lowland forest to be injured for a long time to come. The forest act of June 22nd, 1863, prevented the establishment of ruinous rights of use. But the continued illtreatment of private forests has compelled the state authorities to take still further steps. By an act of June 27th, 1892, the exportation of forest products from the three northernmost counties has been forbidden, and by an act of July 20th, 1893, the municipalities have had the opportunity afforded them of protecting such forests as are necessary for the sheltering of the other growing forests, or forests which seem liable to be destroyed by illtreatment. When at the end of the century, we still have so many mountain and polar forests left, this is often due to the fact that the state has from time immemorial owned these out-of-the-way regions, which have become valuable on account of the improved facilities of transit and the high prices prevailing at the present time; half a century ago, before a public administration of the forests had been organised, it was especially

the site of these forests and the slight value of forestry products that protected them from complete ruin. Those mountain and forest regions which at the time of the country's colonisation remained without being taken into possession by anybody are called «almenninger» (commons). The neighbouring settlements in Norway, as in other Teutonic countries, have always exercised certain rights to the use of the commons, and these rights were retained by the peasants of the country when the commons and Finmarken, at the establishment of the monarchy in the 9th century, were declared to be the property of the king. The inhabitants of the neighbouring district are, as a rule, entitled to take from the forest the timber products necessary for the needs of their farms, and they also have grazing privileges in the low-land commons as well as in the mountains, and fishing and hunting privileges. In former times — from the end of the 17th to the middle of the 19th centuries -- the state disposed of the best commons when the Exchequer was in need. In this way part of the forests passed into private ownership, the rest becoming the property of the inhabited district, being what is called a district-common («bygdealmennig»). The administration of the state and district commons is fixed by law.

It was only in 1857 that an effective control of the public forests was established in Norway, the attempts which had been made about the middle of the 18th century to introduce a regular forest administration having soon been discontinued. The forestry administration is now a part of the agricultural department, having a forestry director as its chief, and four forestry inspectors, 25 forestry managers, 2 forestry assistants, 10 forest planters, and 358 overseers and rangers as the working staff. An appraisalment of the forests and the preparation of regular plans for their exploitation have been commenced, commercial nurseries have been established in several places, as well as establishments for the collecting and sale of forest-tree seeds, the largest two being at Hamar and at Voss. Elementary instruction in the treatment and cultivation of forests is given at three forestry schools, and advanced instruction at the Agricultural College. In the course of the last 30 or 40 years, planting and scientific cultivation of forests have been undertaken both by the state — for instance in the treeless districts of Jæderen, near Stavanger, where the state has planted a territory of 4 sq. miles — and by private

persons with the assistance of the state. During the last two or three years the interest in private forest-planting has grown rapidly, and has led to the establishment, in 1898, of a forestry society, embracing the whole country, and of which a forestry engineer, paid by the state, has the professional management. Forest-planting is gradually being introduced as a subject in the primary schools.

The public forests are partly <i>state «commons»</i>	840 sq. miles	
(which the districts within which they are situated have the right to use), and		
<i>state forests</i>	2,241	—
partly forests belonging to state farms used as official residences by public officers, and forests belonging to the «Fund for the Advancement of Education»	254	—
Total	3,335 sq. miles	
District commons	722	—
		4,057 sq. miles

This does not include the forests belonging to the Kongsberg silver-mines, amounting to 50 sq. miles, and more than 77 sq. miles of forest belonging to the so-called Angell Charities. Of the «state forests» — about 1,293 sq. miles, or more than one half, are located in the counties of Tromsø and Finmarken. These northernmost state forests, as well as the many state commons and state forests situated in the mountains in the southern part of the country are not very productive. Since the year 1860 it has been the rule to appropriate money for the purpose of purchasing forests for the state, especially in districts nearly destitute of forests, and for the purpose of acquiring forests for the protection of other forests. This appropriation has of late years amounted to kr. 64,000 per annum, besides extraordinary grants for larger purchases. The greater part of the forest area purchased has not yet been restored to a good condition after previous illtreatment. According as the condition of the public forests improves, the better will their financial status be, in comparison with what it has been up to the present time, although the numerous and troublesome privileges will always require relatively large expenses of administration. The aggregate gross yield for the years 1859—90 amounted to kr. 9,233,717, and the total net yield to

kr. 3,284,929. By deducting those expenses that have reference to the forest management proper and should be covered by it, namely expenses of administration and exploitation, the net yield is kr. 4,308,306. The purchase-price for forests purchased, the sale-price of farm-land re-sold, and interest are entered neither as revenues nor expenses. The state commons, the state forests, and those forests belonging to the Fund for the Advancement of Education that are under effective control, are estimated at a value of about kr. 15,250,000, without deduction for the value of the privileges encumbering them, and with deduction for the privileges, at about kr. 10,000,000. This estimate, however, in all probability is too high. The value of the district-commons, without deduction for privileges, is estimated at about kr. 9,275,000.

In several parts of the country, however, there is very slight opportunity or none at all of obtaining a supply of forestry products; and the population has therefore, from time immemorial, been wont to use peat as fuel. This is especially the case on the coast in the western and northern parts of the country. Of late years it has also been attempted to make use of the inland bogs for this purpose. Bogs are found almost everywhere in the country, on the desolate table-lands, down the mountain-slopes to the bottom of the valleys, in the inhabited districts inland, as well as on the most distant islands in the western and northern parts of the country. The bogs, properly so called, are sometimes «high-moors» or moss lands, consisting chiefly of sphagnum with a bottom layer of fuel peat, and sometimes grass bogs (tarn bogs) and forest bogs, which are mostly found in the western part of the country and northwards, and contain, among other decayed plant matter, numerous remnants of the luxuriant forests of former times. The fuel peat here occurs in thick strata, from 3 feet up to 20 feet. The peat industry is even now of considerable importance for the fuel supply of the country, and will in the future be of still greater importance. The bogs of Norway are estimated to cover an area of 4,630 sq. miles, or 3.7 % of the surface of the country. This calculation, however, is perhaps too low, and other estimates seem to be in favour of supposing a much larger area of bogs, with such quantities of peat for industrial purposes as might counterbalance the firing value of the collected coalimports of the country for centuries. The fuel peat may be taken out of the bog with a spade in square pieces, which are then stacked and

dried in the open air, or it may be moulded and kneaded in low movable boxes, and afterwards dried in the open air, or, finally, prepared by means of a specially constructed machine. The peat harvest commences as early in the spring as possible, as soon as the danger of night frosts is past. In 1897 a peat master was appointed for Finmarken with some overseers as his assistants. Before that time, some counties had certain officers engaged for the purpose of instructing the population in the exploitation of the peat bogs. But the matter has not as yet received the attention in this country which it deserves.

BIBLIOGRAPHY.

Indberetninger fra Skogdirektøren. Kristiania 1883 ff.

- A. BORCHGREVINK, G. SÆTREN og H. NYSOM. *Haandbog i norsk flødningsvæsen.*
D. I. Kristiania 1889. D. II. *De norske flødningsvæsdrag* af A. HELLAND.
Kristiania 1894.
- A. HELLAND. *Jordbunden i Norge.* (Norges geologiske Undersøgelse No. 9.)
Kristiania 1893.

FISHERIES

THE fisheries, together with hunting, are entitled to be considered the oldest of this country's livelihoods. More than a thousand years ago, according to the old sagas, «splendid painted ships, with sails of several colours» sailed with fish from Norway to England. In the course of time, the fishing naturally lost its character as the principal means of subsistence, especially in the southern parts of the country; but it is still one of the most important in our land.

The value of the *large fisheries*, according to the prices paid to the fishermen at the first sale, has varied during the last 31 years from 14.8 million kr. in 1887 to 29.4 million in 1877. The average for the period is 22.3 million. This does not include the proceeds of the «*daily fishing*» carried on all along the coast to supply the wants of the people themselves, nor yet all the industries and trades that are associated with this occupation. Thus while the fishermen's earnings at the large fisheries in 1897 amounted to about 25 million kr., the value of the year's exportation of fish alone was about 52 million. The total receipts of the entire trade, the large fisheries, the daily fishing for private consumption, and the various extra sources of profit, cannot amount to much less than 60 million kr., or about 10% of the estimated total national income. If we compare the above amount, 22.3 million, which constitutes the average annual receipts of the fishermen at the large fisheries, with similar figures from other countries, it will be seen that the profits of the Danish fisheries are about 5.5 million, and of the English about 80 million kr.

THE SEA FISHERIES.

The sea fisheries are those which play by far the most important part among the Norwegian fisheries. They have their peculiar stamp from the natural conditions and geographical features of the coast. The Norwegian coast-line is exceedingly long. Its importance is still more increased by its curved lines, its deep inlets, and its numerous islands and rocks. All along this coast, fishing is carried on, although of very various kinds.

The coast of Norway slopes very steeply down to comparatively great ocean depths. Whereas, for instance, the English coast, in many places, sinks only 1 fathom below the surface of the water in every mile out from the shore, on the Norwegian coast 1 mile from the shore, and sometimes in the very fjords, we find depths of from 100 to 600 fathoms. These submarine declivities generally have rocky sides of the same form as the coast above the surface of the sea; and only at an average depth of 100—200 fathoms do we find the large levels covered with the softest of mud. At this depth, too, there are great plateaus off the coast, with a breadth of about 60 miles, the so-called coast-banks, which stretch in a curved line from Stad up towards Spitzbergen, and form a kind of rampart on the land side. Outside the coast-banks, the bottom sinks to the 1000—2000 fathoms of the North Atlantic Sea depth.

This circumstance determines the nature of the submarine fauna and consequently of the fisheries.

While a flat sandy shore offers the best conditions for all kinds of flat fish (the flounder family, plaice, sole, turbot) and shallow-water forms such as the eel, prawn, etc., the majority of the food-fish of Norway belong to the so-called round-fish (especially the cod family — cod, green-cod, haddock, etc.). Only a few typical deep-water forms of flat fish are found in any great numbers, such as the mighty halibut. The Norwegian coast, moreover, affords a unique opportunity for the capture of migratory fish (herring, mackerel), because the channels between the numerous islands and rocks permit of navigation with small vessels to a greater extent than any other coast.

In Norway, *lines* are by far the most important fishing-gear, partly in the form of hand-lines, partly as long-lines. In addition



Fishing station in Lofoten.

After a sketch by Mr. Holmboe.

TOWN OF
PUBLIC LIBRARY
ASTOR LENOX AND
TILDEN FOUNDATIONS

to these, *nets* are much used, partly drifting or floating (for herring and mackerel), partly seine-nets (cod and herring). Only two kinds of sweep-nets are mainly used, namely large herring-nets, long walls of net, with which the herring are shut in in the bays and sounds, and the so-called «synkenøter», pieces of net 40 fathoms square. This implement is managed by 4 boats at a time. It is laid flat upon the bottom, and is hauled up by ropes at all four corners simultaneously.

The species that play the most important part among Norwegian fish all appear to be northern animal forms, and in accordance with this, the sea is far richer in the northern than in the southern districts. In this way, about 80 per cent of the large fisheries are north of Stad.

The largest Norwegian fisheries are, moreover, *periodic*, and of such regularity that there are fisheries that have been carried on for thousands of years, and yet the fish never seem to have failed to appear at their regular season, e.g. the famous Lofoten fishery. These periodic fisheries owe their existence to those species of fish that make regular annual migrations in to the coast, especially *cod*, *herring*, *mackerel* and *salmon*. In 1897, there were fished:

about 61.5 million cod	value 12 ¹ / ₂ million kr.
» 42 » gallons herring	» 7 ¹ / ₂ » »
» 1.5 » mackerel	» 1/4 » »
» 2.2 » lbs. salmon & sea-trout	» 1 » »

Thus the most important fisheries are:

THE COD-FISHERIES.

The cod (*Gadus callarias*) seems to be a pronounced northern fish, whose distribution in a southerly direction extends to the Bay of Biscay. It is supposed to live generally upon the great ocean banks. Thence it migrates to the coast at regular seasons, viz. (1) a spawning migration in the months January to April, during which time great numbers of fish approach the shore in order to spawn, the spawn floating on the surface of the sea; and (2) a migration in search of food, during which the cod, especially in the north of the country, pursues great quantities of fish which constitute its food. Among these fish, the so-called capelan (*Mallotus villosus*) plays the most important part.

The spawning migration takes place all along the coast. More cod are therefore fished everywhere in the months of March and April than at other times of the year. These cod are large, sexually matured fish, the so-called sea-cod or «skrei». At certain points of the coast, sea-cod fishing was long ago carried on more than elsewhere, especially in the Romsdal, Nordland and Tromsø counties, and above all at the Lofoten Islands in the Nordland county. Here, during the first few months of the year, about 40,000 men are gathered. Of these, in 1895, 30 per cent fished with nets, 66 per cent with long-lines, and 4 per cent with hook and line.

The Lofoten fishing is carried on from several — about 36 — fishing stations, «fiskever», havens with the necessary buildings along the shore. Some of these buildings are the warehouses of the traders, some the fishermen's booths, which are small, sometimes extremely primitive houses right upon the shore, and serve for keeping fishing-tackle in, as places for putting on bait, and as dwelling-rooms for from 12 to 24 men. The house generally contains only one large room, and sometimes an attic.

At one station, there may be from 3 to 4 thousand men, and in the morning, at a given signal, a whole fleet sails or rows out to the fishing-places, which are sometimes as much as 8 miles from land. The vessels all make use of sails, and most of them are open, without any deck. The largest, ten-oared boats, of 7 or 8 tons register, and a crew of 6 men, use lengths of net measuring from 700 to 1300 yards. The single nets are from 27 to 33 yards in length, and have a mesh of from 3 to 3½ inches. They are sometimes laid along the bottom, sometimes more or less near the surface, are put out before night-fall, and drawn up again in the morning.

Long-line fishing is carried on from somewhat smaller boats, eight-oared, of from 3 to 3½ tons register, and a crew of from 3 to 5 men. The lines may be from 1600 to 2700 yards in length with 1200—2000 hooks. Some of them are set during the day, others at night, and they are baited with herring or cuttle-fish.

The original fishing implement is the hand line. For these, small boats are used, of less than 1 ton's register, with a crew of 2 or 3 men, who are continually moving from place to place until they find the fish.

From 300 to 400 cod is reckoned a good day's fishing for a net-boat, and 200 for a long-line boat. The fishing is considered



View of a fjord during the skrei fishery.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

very good when the results are respectively from 600 to 800, and 400; above these numbers, it is considered to be abundant. The average per man for the whole of the fishing may be estimated at from 900 to 1000 cod, but this number has varied from 550 in 1883 to 1310 in 1877. The average net profits per diem, are put down at kr. 1.52 for a net fisherman, kr. 1.68 for a long-line fisherman, and kr. 1.31 for a hand-line fisherman, to which, in the case of all, may be added board and lodging. In spite of these not particularly large average net profits, fishermen flock annually to Lofoten from a great part of the country.

A large trade and a preserving industry are associated with the Lofoten fisheries. The fish is bought partly by traders on shore, who have their warehouses with salting-room, storing-room, etc. here, partly and principally by merchant-vessels, of which there are sometimes as many as 700 on the spot at one time.

The fish is sold by number — in 1896, for instance, at an average of kr. 28.60 per 100. The weight varies from 9 to 20 lbs., but cod have been taken weighing 90 lbs., and with a length of 5.4 ft. If the average weight of a fish is reckoned at 10 lbs., the price will be about kr. 0.03 per lb.

The fish is prepared, as a rule, either as *klipfisk* (salted and dried) or as *tørfisk* (stock-fish). Among the secondary products, the heads are used for fodder and manure, the roe for bait, and the liver for oil. The profits of the Lofoten fisheries for the years 1894—96 will be seen from the following table:

Year	Klip-fisk	Tør-fisk	Total	Heads	Roe	Cod-li-ver-Oil	Train Oil	Value
	Millions			1000 Gallons			Million kr.	
1894	24.5	4.0	28.5	20.0	536.8	270.6	160.6	7
1895	31.4	7.2	38.6	28.9	924.0	270.6	83.6	6.9
1896	15.3	2.7	18.0	11.1	352.0	194.7	26.4	5.15

It will be seen from the above that the most important product is *klipfisk*. This is prepared by first being salted at the fishing stations themselves, and sent thence to the drying-places, where the fish is laid upon the flat rocks to dry. It is calculated that a cod weighing $10\frac{1}{2}$ lbs yields 2.2 lbs of salted cod. This is partly due to the removal of the head and entrails, which, how-

ever, are put to other uses (manure, fodder, oil), partly to the diminution in the weight of the flesh, the salt drawing the water out. While the flesh of a living cod contains about 70 per cent water, salted cod contains 36.82 per cent water, and 15.5 per cent salt. In the preparation of salted cod, the value of the fish rises in the proportion of 100 to 142 or 143.

The preparation of salted cod was introduced by English merchants in the 17th century, and has gradually outstripped that undoubtedly very ancient product, *tørfisk*. In 1790, 216,000 cwt of this product were prepared, from 1836 to 1840, 295,000 cwt, and from 1887 to 1891, 335,000 cwt; while the corresponding quantities of klipfisk were 79,000, 197,000 and 917,000 cwt.

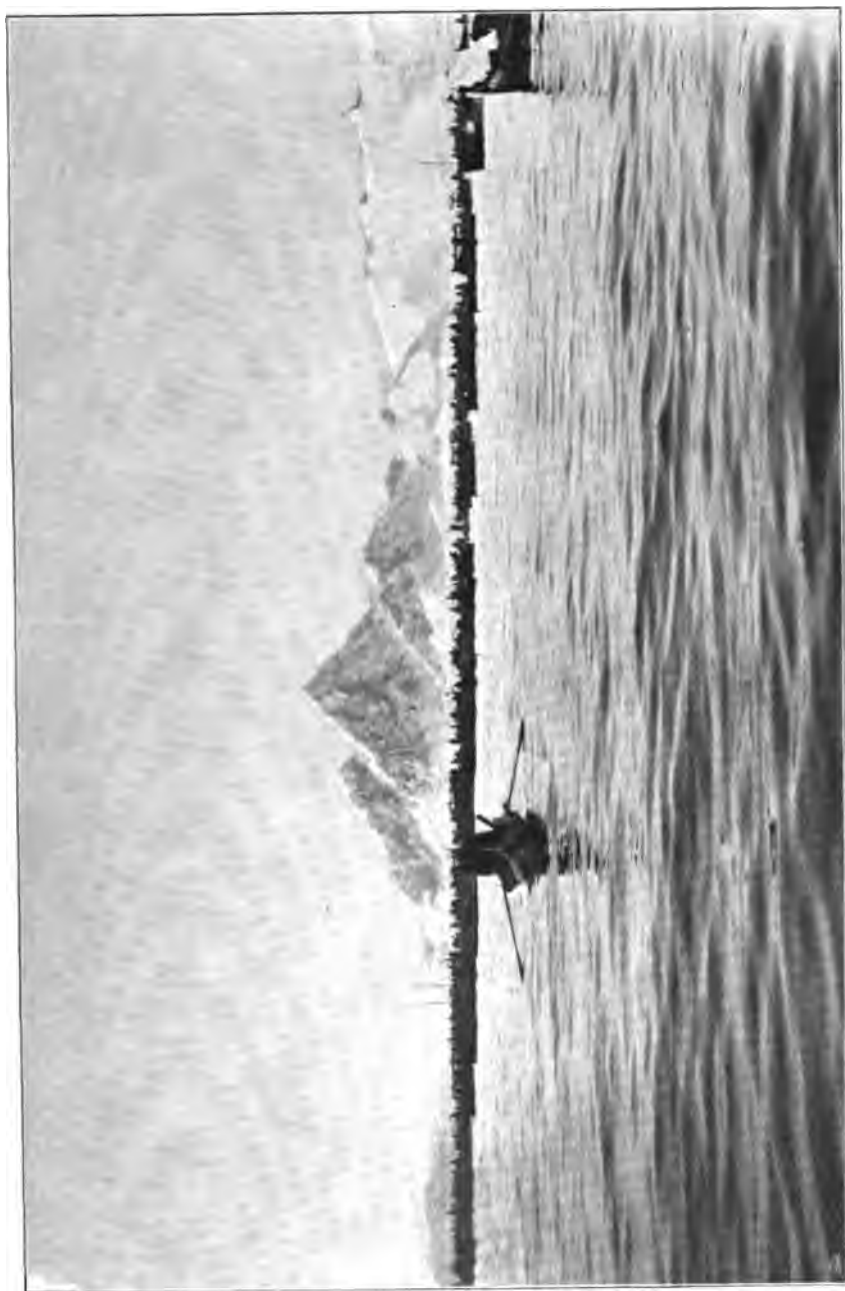
The preparation of *tørfisk* is in the main more simple than that of salted cod. When the fish is cleaned, and the head taken off, it is hung, generally in pairs, by the tail to dry upon wooden scaffolds, called *hjell* (flakes). According to ancient rules, no fish was to be hung up after the 12th April, or be taken down before the 12th June.

During the year 1897, there were exported:

Tørfisk		Klipfisk	
To Sweden	2,320 tons	To Spain	28,450 tons
› Italy & Austria	4,950 ›	› Germany	8,720 ›
› Holland	3,500 ›	› Gt. Britain & Ireland	5,620 ›
› Germany	3,280 ›	› Italy	1,940 ›
› Gt. Britain & Ireland	2,730 ›	› Portugal & Madeira.	2,450 ›
› Russia & Finland	850 ›		
› Belgium	170 ›		

A part of this export, however, was sent on farther from the lands in question. *Tørfisk* is exported almost exclusively from Bergen, Trondhjem, Tromsø and the towns in Finmarken; klipfisk from Kristiansund, Bergen and Aalesund.

Among the secondary products, the liver oil takes an important place. The greater part is prepared as cod-liver-oil by exposing the liver to a jet of super-heated steam, which destroys the liver cells, and causes the small drops of oil to run together. The fishermen themselves, in olden times, had made train oil by letting the liver become rotten, or by melting it. Several sorts



Long-line fishing.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

of oil are now produced, from brown oil to the finest white cod-liver-oil.

The roe is salted, and most of it sent to France, where it is used as bait in the sardine fisheries. In 1897, 1,323,000 gallons of roe were exported, the value being kr. 1,323,100.

In former times, the head and intestines were thrown away, and even now are far from being utilised as they should be. Of late years, however, manure has been exported for about one million kr.

Besides the above winter cod fisheries, there are also large cod fisheries at other seasons of the year. Among these, the «capelan-fishery» of Finmarken, during the months of April and May, occupies the most prominent position. In this, in 1897, 18,173 fishermen took part with 4777 boats. The fishery is called capelan-fishery because the cod is supposed to go landwards chiefly after the capelan (*Mallotus villosus*), a fish of the salmon family, that is also used as bait. It seldom occurs in any quantity south of 65°, but in April and May it gathers round the coast of Finmarken in enormous numbers in order to spawn. Shoals of cod come after it, together with whales and birds, and revel in the abundance of capelan.

The fishing is carried on for the most part with deep-sea bait from ten-oared boats (see p. 356), manned by 5 men. The capelan fishery is a very uncertain one, as will be seen from the following table showing the profits of the fishery in Finmarken for the years 1895 and 1896.

	Cod	Haddock	Heads	Halibut cwt.	Liver galls.	Roe galls.	Profits kr.
1895 . . .	9,659,400	1,845,016	5,528,000	2,098	325,974	6,996	1,662,320
1896 . . .	16,982,200	2,579,000	8,875,500	5,500	767,184	9,108	4,769,892

In addition to these large periodic fisheries, fishing with hook and line for round fish is carried on all along the coast. This fishing is less periodic, and is only restricted on account of the weather, to the best time of the year, from April to September. These fisheries are long-line fisheries, especially for other kinds of fish, e.g. haddock (*Gadus aeglefinus*), ling (*Molva vulgaris*), tusk (*Brosmius brosme*), rose-fish (*Sebastes norvegicus*), and the large deep-water flat-fish, halibut (*Hippoglossus vulgaris*). This fishing

is pursued for the most part in deep-water (80—200 fathoms), and has developed in an especial manner in the Romsdal county, Vesteraalen and Finmarken, particularly on the banks outside Romsdal. Decked boats are employed here, cutters and even small steamers. This fishery was originally begun by Swedish North-Sea-fishermen. Its development may be seen from the following survey:

	1862	1873	1883	1890
Vessels, Norwegian	5	7	21	78
» Swedish	9	12	1	—
Fishermen	196	233	274	707
Ling taken (cwt)	6,690	24,000	27,000	—
Value of raw produce kr.	46,800	143,300	155,000	250,000

THE HERRING FISHERIES.

Next to the cod fisheries, the herring fisheries are the most important. They, too, are carried on all along the coast. In olden times the herring was only used fresh or dried, and then exclusively for home consumption; but after the invention of herring salting (by the Dutchman BEUCKEL, in 1416), a herring fishery was also developed in Norway for exportation, and in the year 1897, 29.6 million gallons of herring were exported, their value being kr. 18,000,000.

The herring fisheries have a still more variable character than the cod fisheries, and some years have even been altogether wanting. These variations have so affected the economy of entire districts, that good and bad times, as a whole, have been dependent upon them. It is a widely-spread belief that there are regular «herring periods», with good and bad herring years. Such periods have even been set at a certain number of years (about 30). As an instance of how great the variations can be in the profits of a single fishery, it may be stated that the so-called spring herring fisheries in certain years of the herring period 1840—70, could occupy as many as 30,000 men, and yield as much as 20 million gallons, and then sink down to almost nothing. In recent years, the herring seems to be once more returning.

The herring frequents our coasts only during short periods of the year. Suddenly, as if by a stroke of magic, the sea becomes



Drying kipflak.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

full of herring, and then, after a time, is once more empty. It is especially twice a year that the herring thus comes in-shore, once in the winter, and once in the summer and autumn. The first is a spawning migration, during which the herring deposits its eggs upon the bottom among the thousands of islands and sounds round the coast, and it occurs, like that of the cod, all along the coast, but in many places only to a small extent. Where the pouring-in is great, large fisheries have sprung up, which have long been renowned. We have especially two such, the so-called spring-herring fishery, and the so-called winter, or large-herring fishery.

The *spring-herring fishery* (along the west coast in the Stavanger county and the Bergenhus counties) has always been concentrated about certain fixed points, especially the towns of Stavanger and Haugesund, and the fishing-stations lying off them.

The *large-herring fishery* (in the Tromsø county, Nordland and the Romsdal) occurs earlier in the winter, especially in November and December. The large herring is not fit for spawning until the new year, and is subsequently supposed to spawn in smaller shoals far out at sea. In its best years, this fishing has given employment to 20,000 men, and yielded as much as 18 million gallons.

All the other herring fisheries take place in the summer or autumn, and are generally called «summer herring» or «fat herring fisheries». The herring is then supposed to approach the coast in search of food among the abundant masses of drifting organisms — the plankton — that with the autumn develop in the in-shore waters. Such fisheries are found, some in the more northerly counties (Nordland and Tromsø), some in the Romsdal county, and some — though only occasionally — in south-eastern Norway, round the mouth of the Kristiania Fjord (east-country fishing). To show how the fishing is distributed along the coast, it may be mentioned that in 1897, the proceeds were as follows:

Søndre Bergenhus	kr. 138,205	Nordre Trondhjem	kr. 119,025
Nordre	» 77,838	Nordland	» 2,013,711
Romsdal	» 102,787	Tromsø	» 667,460
Søndre Trondhjem	» 63,010	Finmarken	» 9,600

To show how variable the fishing can be in one place, it may be stated that the profits in the Romsdal county in 1886 were kr. 191,834, in 1888 kr. 872,146, and in 1891 kr. 2755.

In all these fisheries the fishing is always carried on with the same kind of tackle, and all in one way. It is for the most part among the islands, where the favourable conditions as regards havens, and the fact that the herring goes right in among the islands, makes it possible to employ small boats, and to lay the nets along the bottom as permanently anchored appliances, or else to shut the herring into a bay with long walls of net, and then bale them up out of the shoal in the net. On the other hand, this fishery, in which the herring is waited for, is more variable than those in which the fish is sought for. This latter method of fishing has therefore of late years gained ground in certain parts of this country.

The nets are kept floating by cork or glass balls and kegs, and are attached to the bottom with stones, or anchored with grapnels. By means of cords from the weights and up to the kegs, the nets can be placed higher or lower, according to the path that the herring is taking.

The seine-nets are often as much as 800 feet in length, and from 100 to 130 feet deep. The fishermen live and keep their tackle in receiving-vessels (generally of the sloop type). Smaller boats are moreover employed in net-fishing, and also large seine boats, into which the herring is taken.

The shutting in of the herring requires many years' experience, and a special aptitude. There is a head among the crew, called the master-seiner. His special ability consists in being able to judge when there are sufficient herring for putting out the nets. To judge of this, the fishermen have signs founded upon long experience, such as whales and birds following the shoals. A lead is moreover employed for the purpose of feeling whether the herrings are there, and determining the «herring density». In such catches there have sometimes been taken 20,000 barrels (of 30 gallons) at kr. 10—12.

As a ware, herring varies very much. The spring herring is thin, as the fat diminishes during the maturing of the sexual products. The summer herring, on the other hand, has small sexual organs, and large accumulations of fat. The herring is generally preserved by salting. Of late years, too, a certain amount of fresh and smoked herring has been exported. The herring is bought up by traders on shore, or by merchant vessels. In the process of salting, the organs that contain the largest quantity of blood, such as

the heart and gills, are first removed. The herring is then laid in barrels in layers with salt between. The barrels are carried to the storing-places, where the herring is sorted, and again laid in barrels with brine. There are many degrees in the goodness and value of the salted herring, varying according to the care and exactitude with which the salting is performed.

The exportation of Norwegian herring is chiefly from Bergen, Haugesund, Trondhjem and Stavanger, to Germany, Sweden and Russia.

MACKEREL FISHING,

in the nineties, has yielded results varying from 1,117,000 mackerels (value kr. 194,000) in 1896, to 5,381,000 mackerels (value kr. 659,000) in 1891.

The mackerel (*Scomber scombrus*) is rare north of the Trondhjem Fjord, and is fished partly in the Skagerak and the fjords off it, partly in the North Sea by large boats. In the summer of 1894, for instance, 426 vessels with 2920 men were fishing in the North Sea. In the fjords, the mackerel is only found in the summer, when on a spawning migration, and it is then caught either with lines baited with herring, or with nets, or it is shut into bays and taken with seine-nets.

Until 50 years ago, the

SALMON FISHERIES

were principally river fisheries. Circumstances underwent a change on the introduction of the bag-net, a wedge-shaped net, made permanently fast. In the year 1896, for instance, the proceeds of the river salmon-fisheries were kr. 224,688, but of the sea-fisheries kr. 845,291, total, kr. 1,069,979, to which must be added about kr. 200,000 paid by sportsmen for the renting of rivers.

The salmon is fished all along the coast, from the 1st May to the end of August. The best districts have hitherto been the Trondhjem and Bergen counties.

Fishing in the rivers is carried on partly with rod as a sport, but chiefly with seine-nets, with which, at the mouths of rivers especially, capital hauls may be made.

Salmon is exported via Trondhjem to Sweden, Denmark and Germany, and via Bergen to England.

DAILY FISHERIES.

In addition to these periodic fisheries, a certain amount of more regular fishing called *daily fishing* goes on all along the coast, chiefly to supply the wants of the coast population. Calculations respecting this fishing are only forthcoming from a few places. In Lofoten and Vesteraalen, for instance, the consumption of fish is estimated at kr. 150,000 annually, the supply coming to the Kristiania wharfs from the Kristiania Fjord, at from kr. 400,000 to kr. 500,000, and so forth.

These fisheries are for green-cod (*Gadus virens*, chiefly in the north and west), cod, haddock (*Gadus aeglefinus*), whiting (*Gadus merlangus*, especially in the south), the flounder species, small herring, lobster, oysters, etc. The fishing is from the head to the mouth of the fjords. As a rule, the sea-fishing is far better than the fjord fishing. The daily fishing is the most important for the coast population, and in many places supplies their chief means of subsistence. Altogether it represents a value of several million kroner. Out on the open coast, large fisheries have been developed, large vessels (smacks and some steamers) having ventured out to the coast banks, e.g. off Romsdal and Vesteraalen. Beyond this, Norway has taken no part in the great competition in fishing in the North Sea. And of the fisheries not on Norwegian shores, the arctic fisheries are the only ones prosecuted by Norwegian fishermen.

THE ARCTIC FISHERIES

extend over the whole of the Arctic Sea from Greenland and Jan Mayen Island in the west, to Spitzbergen, Novaya Zemlya, the Murman coast and Finmarken in the east.

Farthest west, on the «West Ice», close to Jan Mayen and in the sea between Greenland and Iceland, the harp seal (*Phoca groenlandica*) and the hooded seal (*Cystophora cristata*) are hunted. These animals are either shot or felled upon the ice, where they gather in the spring, in certain places, in great numbers, to give birth to their young. The rest of the year, they live scattered over the sea. This fishery is very hazardous and costly. In 1897, 13 steamers were equipped from southern Norway, with 619 men.



Whale fishery.

After a sketch by Mr. Holmboe.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

The proceeds were about 60,000 seal-skins, 13,500 barrels of blubber, 203 whales (bottlenose, *Hyperoodon diodon*) and 11 polar bears, at a total value of about kr. 650,000.

In the same locality, during the summer, whale-fisheries are carried on for the bottlenose whale, — in 1897 by 65 vessels (10 of which were steamers), and about 1000 men. Whales to the number of 2141 were captured, valuing kr. 550,000.

In the eastern waters between Spitzbergen, and Novaya Zemlya, the Murman coast and Finmarken, the fishing is carried on from the towns in the north of the country, — in 1897, for instance, with 61 vessels. The capture included, besides seals (about 40,000), more than 400 walruses (*Odobænus rosmarus*), about 500 polar bears and reindeer from Spitzbergen, and some small species of whale. The aim of the fishery as a whole is to turn to account the abundant animal life of the arctic regions in every possible manner.

The true whale fishery, however, is for the large species of fin-backed whales, especially the Sibbald's whale (*Balænoptera sibbaldii*), the hump-backed whale (*Megaptera boops*), the fin-whale (*Balænoptera musculus*), and the lesser fin-whale (*B. rostrata*). These are shot from small, extremely sea-worthy steamers, most of them within a distance of 25 miles from the coast of Finmarken. The implement used is the so-called bomb-harpoon, an arrow-shaped iron spear, furnished with a line, which is discharged from a small cannon. The whale often draws the vessels a long way, until it becomes exhausted and dies. It is then towed ashore, and the blubber is removed. This whale-fishery was begun in 1868 by SVEND FOYN. While 30 whales were taken in the first year, in 1897 1080 whales were killed by 513 men on 25 steamers, value kr. 1,321,000. At first only the blubber was utilised for train oil; now the bones are crushed for bone manure, and the flesh is used for fodder and manure.

FRESH-WATER FISHERIES.

Of the fresh-water fisheries, the above-mentioned salmon fisheries are the most important. All fresh-water fishing still has quite an original character. There is no regular fish-culture. Most of the lakes are deep, and lie high above the sea, and it is

still an open question whether pisciculture could be carried on successfully.

Next to the salmon, the trout (*Salmo trutta*) and the red char (*Salmo alpinus*) are the most important. They are caught with hook or net for household use, or for sale in the immediate neighbourhood. Further may be mentioned the gwyniad (*Coregonus lavaretus*), the pike (*Esox lucius*), the pike-perch (*Lucioperca sandra*), and the perch (*Perca fluviatilis*). The profits of these fisheries are no doubt small, but hardly permit of calculation. Eel (*Anguilla vulgaris*) fishing presents the greatest possibility of development, but as yet, little attention has been paid to it.

LEGISLATION AND ADMINISTRATION.

As regards legislation, the country maintains the sole right of Norwegian subjects to the fishing within a territorial boundary line, drawn at a distance of 4 miles from the outermost islands and rocks round the coast. In the great fjords such as Vestfjorden and Varangerfjorden, where the breadth is sometimes as much as 60 miles, the Norwegians maintain the sole right to the fisheries, basing their claim upon the fact that the fishing in those waters has been carried on exclusively by Norwegians for at least a thousand years. The fishing in salt water is in general open to all Norwegians, of course with the restrictions that have been found necessary in the large fisheries for the maintenance of order. Moreover, the right of having fixed appliances is always reserved to the land-owner, while the right to the use of the shore for fishing with movable appliances (lines, nets), is free with certain restrictions, as in some places the ground-owner maintains the right to the fishing, while in others he claims a share in the profits, the so-called «landslod». At the large fisheries this is by no means inconsiderable. For the rest, free fishing is restricted by various protective regulations.

The *administration* of the fisheries falls under the province of the Department of the Interior, where a referee is appointed in fishing matters. For the salt-water fisheries, there are moreover 4 inspectors of fisheries, each in a separate district, while the fresh-water fisheries all over the country are under one inspector.

Investigation of the fisheries (fishing methods) and of Norwegian waters is made by a special, «practical-scientific investigation»; and the fishery interests are watched over by biological stations supported by the state at Drøbak (on the Kristiania Fjord), Bergen and Trondhjem.

In addition to this, the state makes grants to companies of partially private organisation, whose object is of a more local character, most of them being branches of a «company for the promotion of fisheries» with its principal office in Bergen.

There are also annual grants in the telegraph, harbour, and light-house budgets for the advancement of the fisheries, and purely scientific institutions have also received liberal support for the same purpose, e.g. the Norwegian North Atlantic Expedition, which investigated the Norwegian North Atlantic in 1876—78. Professors H. MOHN and G. O. SÆRS have rendered special service to this expedition, the last-named having also during 30 years conducted fishery investigations, and laid the foundation of most of our knowledge of the Norwegian fisheries.

BIBLIOGRAPHY.

- The Norwegian North Atlantic Expedition 1876—78.* Kristiania 1883 seq.
G. O. SÆRS. *Indberetninger til Departementet for det Indre i Christiania.*
A. HELLAND. *Lofoten og Vesteraalen.* (Norges geologiske Undersøgelse. No. 23).
Kristiania 1897.
Report on Norwegian Marine Investigations 1895—97. Bergen 1899.
Report on Norwegian Fishery and Marine Investigations. Kristiania 1900 seq.
Norsk fiskeritidende. Bergen 1882 seq.
Aarsberetning vedk. Norges fiskerier. Kristiania 1894 seq.
-

HUNTING

THE *elk*, the *reindeer* and the *red deer* are the big game that are hunted in Norway. Among other game used for food, the *hare*, *grouse*, *blackcock*, *capercaillie*, *hazel grouse*, *thrush* and other small birds are snared and shot, as well as a few sea-birds such as *little auks*. Certain beasts of prey are also hunted, such as *bear*, *wolf*, *lynx*, *glutton*, and *fox*, as also *eagle* and *goshawk*. A reward is offered for each of these animals all over the country, and in some places a reward is offered for the extermination of *martens* and *eagle owls*. The *otter* is also common, and an object of chase, as also the *badger*. In connection with hunting may also be mentioned the collecting of *eggs* and *down* on the islands, several of the northern islands being nesting-places, where sea-birds nest in thousands.

On the coast a number of *seals* are killed, and off the coasts *whales* also. (Cf. above page 370).

The hunting of all the above-named eatable animals is pursued partly as a minor means of subsistence by the country people, partly as a sport by towns-people and foreigners; and all the above-named eatable animals are the objects of both kinds of hunting or capture.

Besides guns, traps and snares are used in the capture of these animals, the employment of which it has been attempted to restrict by legislation.

The *elk* occurs commonly in south-eastern Norway, and in the Trondhjem district as far north as southern Helgeland.

The *reindeer*, which frequents the high mountains, is shot principally in the Kristian's and Hedemarken counties, and to

some extent in Hardanger and Voss, and in other counties in the west country. In northern Norway, where the Finns wander about with their large flocks of tame reindeer, the wild reindeer is rapidly disappearing.

The *red deer* occurs chiefly in Hitteren, and in small numbers on the adjacent islands, and also on the mainland near Hitteren.

The number of head of big game shot during 1896 and 1897 is as follows:

	1896	1897	1898
Elk	991	880	902
Reindeer	942	832	951
Red deer	138	147	180

Grouse is without comparison the most important game in the country. The probable number of grouse shot and snared annually in Norway is 1,100,000. A large proportion of these are snared, but shooting grouse over dogs is much practised, and is a favourite sport. It is principally the willow-grouse that is shot, and its distribution is in a great measure dependent upon the birch woods. Certain tracts and islands are well-known as good grouse country, e.g., Hadsel in Vesteraalen.

Shooting *hares, blackcock, capercaillie, hazel grouse, thrushes* and other *small birds* is general, principally in the wooded parts of the country; but the shooting of all these animals together is of less importance than grouse-shooting. While the weight of the grouse shot annually is estimated at about 440 tons *dead weight*, that of the other birds and hares together amounts to 260 tons.

Wild duck, woodcock and a few other birds are also shot, but the results are not great.

In northern Norway, the sea-birds breed in colonies or upon bird-cliffs, where they are found in enormous numbers. They sit in long rows upon the ledges of the cliff, side by side.

The birds that breed upon the bird-rocks, and whose eggs are collected, are the *kittiwake*, the *puffin*, the *little auk*, and the *guillemot*. The *large* and the *small cormorant* also frequent the bird-cliffs. The birds on these cliffs are caught or killed partly for the sake of their feathers, partly for their flesh. Nets are also used in catching them, and sometimes dogs to drag the puffins out of the holes where they sit.

The *eider-duck* is valuable on account of its down. This bird is found along the whole coast, but principally in northern Norway.

It lays from 5 to 8 eggs, and builds its nest partly of down. From each nest, about 1 ounce of eider-down when cleaned is obtained, and a certain number of eggs are also taken from the nests.

There is no exact estimate to be had of the quantity of eggs and down collected in the country; but probably the entire production of sea-birds' eggs throughout the country amounts to about half a million in number, and of eider-down to about 3000 lb.

The number of beasts of prey killed in 1896 and 1897 was as follows:

	1896	1897
Bear	44	39
Wolf	90	112
Lynx	30	53
Glutton.	64	48
Fox	13,605	13,642
Eagle	770	678
Hawk	3,999	3,295

Some earlier figures are here given for the sake of comparison. Between the years 1846 and 1860, the *annual average* number of beasts of prey was as follows:

Bear	231
Wolf	222
Lynx	120
Glutton.	53
Birds of prey.	4269

No reward was offered during these years for foxes.

The number of *bears* has been steadily decreasing with the more general use of better guns.

In the northern districts, the *wolf* is found generally where there are tame reindeer; but for a number of years it seems to have disappeared from large tracts of the country, as if some disease had attacked it. Latterly it has again seemed to be increasing in number.

The *lynx* and the *glutton* are widely distributed, without occurring anywhere in very great numbers.

As the figures show, the *fox* is without comparison the most common beast of prey, and it is hunted partly for its skin, partly

for the price that is put upon its head, and partly to reduce the amount of injury it does to the useful game and in the farmyard.

The number of *eagles* brought down annually is put, as we have seen, at about 700 during the last few years. Some of these are sea-eagles, some ospreys. Among the *goshawks* brought down, there are also some *falcons*; and in olden times, Norway furnished live falcons, that were trained for hunting in Central Europe. The Dutch especially had places in the Norwegian mountains for the capture of falcons.

Hunting without dogs has from ancient times been free in Norway. By a law, which comes into force on the 1st July, 1900, however, all right to the shooting and trapping of animals — with the exception of beasts of prey — is assigned to the land-owner; and the close times are considerably extended. In the «statsalmenninger» (see page 347) hunting is still free to all Norwegians. Foreigners wishing to hunt must take out a special licence.

BIBLIOGRAPHY.

- J. B. BARTH. *Erfaringer fra Jagten paa det mindre Vildt i Norge*. 2 Udg. Kristiania 1891.
Norges Fuglevildt og Jagten paa samme. Kjøbenhavn 1881.
N. J. GREGERSEN. *Jagt i Norge*. Kristiania 1898.
Norsk Jæger- og Fiskerforenings Tidsskrift. Kristiania 1872 ff.

MINING

THE Norwegian Mining Industry is not very considerable, and it has not advanced during the last generation. The reason of this is that the Norwegian ores, as a rule, are not rich, their extent is not large, and their occurrence is often irregular.

As coal does not occur — except on the out-of-the-way island, Andøen — the conditions are not favourable for a large smelting industry. The number of ores and useful minerals occurring is, on the other hand, considerable, and some of them have been worked for centuries. In the following pages, we shall mention the most important mines in Norway.

The *Kongsberg Silver Mines* are owned by the Norwegian State. The ore here is virgin silver (with sulphuret of silver), occurring in lodes, consisting of calcite, fluor and quartz, these lodes crossing the bed-rock from east to west, while the strata of the rock run from north to south, and are impregnated with sulphur ores. The virgin silver sometimes appears in big nuggets weighing even more than 200 lb. The number of lodes is very great, as also the number of old mines.

The silver-mines of Kongsberg began to be worked in 1624, during the reign of CHRISTIAN IV, and subsequently the work was usually carried on there with loss, a circumstance which caused the mines to be closed in 1805. The exploitation of the mines was resumed in 1815, and was continued with loss until 1823, when the output during one year exceeded 10 tons of silver, so that the work yielded a surplus of 1.6 million kroner. Since that time, the production has been about 5 tons of fine silver annually,

and from 1815 to 1898, the mines have given a net yield of about 23,000,000 kroner.

The result of the great fall in the price of silver has been that of late years the mines have given no surplus. The total output of the Kongsberg silver-mines up to the year 1898 has been as follows:

Year	Tons of Silver	Gross Value
1624 to 1815	553	88.7 million kr.
1816 - 1898	345	52.8 — »
Total, 1624 to 1898:	898	141.5 million kr.

The silver ore produced at the Kongsberg silver-mines is sorted and treated on rollers and separators, while the finest goods are refined on hearths.

The virgin silver is burnt fine, while the schlichs are melted with pyrites, and after roasting and repeated melting mixed with lead, whereupon the furnace lead is cupelled, the result being fine silver of 998 per mille fineness.

Some mining for silver has also taken place in the districts round Kongsberg, on fields that have been left for private exploitation; and the same has been the case at Svenningdalen in Vefsen (Nordland), where the mines have been worked for fahlerz and galena containing silver, with an output during the years from 1876 to 1896, representing a value of 1½ million kroner.

The oldest *copper mines* in the country are those of Røros. These mines were started in 1646, and the most important ones are Storratsgrube, Kongens Grube with Arvedals Grube, and the Mugggrube. The ore is copper pyrites at the Kongens and Arvedals mines, and in other places cupriferous iron pyrites, of which a great quantity is exported.

The working of the Røros copper mines has of late years been extended. There is a new electrical establishment worked by water-power, by which the power is transferred to the mines, and distributed for various purposes.

The copper ore that is smelted, as a rule contains rather more than 5 % of copper; it is roasted and melted in water-jacketed furnaces, whereby a first matte is produced, containing 37 % of copper. By the Manhès Bessemer process this matte is concentrated to a concentration matte, containing 78 % of copper, and this again by the Bessemer process into Bessemer copper (99.5 %) which is refined.

The Røros copper-mines used to produce from 600 to 700 tons of copper, and about 20,000 tons of pyrites for export, but with the new works, the production will be considerably increased.

From 1646 to 1897 the Røros copper-mines have produced 73,000 tons of copper, and from 1880 to 1897 about 260,000 tons of pyrites for export, the aggregate value being 133 million kroner, of which the pyrites exported represents 4½ million. The net yield may be estimated at 36,000,000 kroner for all these years taken together. The mines are owned by a Norwegian joint-stock company.

The Sulitjelma copper-mines, in Salten in Nordland, are worked for the same ores as the Røros mines. They produce partly copper and partly pyrites for export. They were not opened for exploitation until 1887, yet in 1897 they employed from 600 to 700 men, and the annual output is about 30,000 tons of pyrites for export, while the smelting ore yields about 350 tons of copper.

At the mines, which are worked by a Swedish joint-stock company, there are several considerable lodes of cupriferous iron pyrites, and the output will probably be considerably increased.

The *Aamdal copper-mines* in Telemarken produce copper pyrites, which is dressed and exported. The mines are old, and have been worked partly by Norwegians and partly by Englishmen.

During the years 1876 to 1897, the output of copper-ore has yielded a total of 5,700 tons of copper.

Besides the copper-mines here mentioned, there have been a considerable number of old mines that are now closed, such as Meraker or Selbu copper-mines in Meraker, Løkken copper-mines in Orkedalen, Dragset in Meldalen, Bøilestad mines in Froland.

Some mines have been worked partly for cupriferous iron pyrites and partly for pyrites for export.

The most important of these were the *Vigsnes* mines, which were worked by a Belgian-French company from 1865 to 1894, with a total output of about 900,000 tons. The works were closed in 1894, when the mines had reached a depth of 2410 feet.

Other important, partly cupriferous, pyrites mines have been worked at the Ytterø works on the Trondhjem Fjord, and Valahei mines on the Hardanger Fjord.

Important ores of pyrites occur at the Foldal mines in Foldalen, and in the Undal mines, but it has hitherto been impossible

to work these mines for export, as they are situated in the interior of the country at too great a distance from railway stations.

Iron ores occur in many places in Norway, and the country previously had a considerable number of old, but unimportant iron works such as Bærum, Moss, Hakkedalen, Eidsvold, Hassel, Eidsfos, Fritzø, Hollen, Bolvik, Egeland, Froland and others.

The result of the rising price of charcoal and the condition of the forests, which did not permit any great increase of the coal production and the whole working of the ores, was that these works were closed about the sixties. The sole exception to this was the Nes iron works near Tvedestrand, which get their ore from the Klodeberg mine near Arendal. The Norwegian iron produced from the ore from the Arendal mines is noted for its good quality. Some iron fields in Nordland and Telemarken could be made to yield considerable quantities of iron ore, if they were connected by rail with some port.

A number of *nickel* mines have been worked for magnetic pyrites containing nickel; the working of these mines commenced towards the end of the forties, at Ringerike and Espedalen. Afterwards several nickel-works were established, such as Bamle, Evje, Sigdal, Askim, Senjen, Skjækerdalen, where the ore, as a rule containing 2 % of nickel, was smelted.

These nickel works were flourishing during the years 1870—1880, when prices were high on account of the small supply of, and the great demand for this metal, for small coins. At the present time these nickel works are not being worked, but the ores sometimes occur in great quantities.

The Modum *cobalt* mines were first worked in 1772, and were worked up to the year 1898, when they were closed. They were owned by a Saxon company. The most important ore at the Modum cobalt mines was cobaltite, which was dressed.

Chromite occurs in several places in serpentine, the most important ores occurring in the vicinity of Røros.

Zinc-blende has been extracted from the Birkeland mine in Saude, and *galena* at the Konnerud or Jarlsberg mines in Skoger near Drammen.

A little *rutile* and *molybdena* is produced. *Thorite*, containing the rare mineral thorium, is found in scattered lodes, from Lange-sund towards Arendal. Some years ago it fetched a very high

price, and the total production may have been worth about kr. 1,000,000.

The following table is a summary of the mining industry during the years 1896 and 1897.

Mining in Norway	Quantities produced		Value of Production		Number of hands employed	
	1896	1897	1896	1897	1896	1897
	Tons	Tons	Kr.	Kr.		
Silver and silver ore	527	760	400,000	464,000	225	225
Gold			35,000	2,500	93	191
Copper ore	29,910	27,806	1,136,100	1,144,100	1,303	1,133
Pyrites, partly cupri-ferous	60,507	94,484	970,000	1,445,000	248	519
Nickel ore					3	
Cobalt schlichs	29	24	10,000	10,000	40	30
Iron ore	2,000	3,627	14,000	21,000	8	150
Zinc ore	450	908	13,500	27,000	52	168
Molybdena	4	2	6,000	3,000	15	9
Rutile	30	32	36,000	20,000		9
Total	93,457	127,443	2,820,600	3,136,600	1,987	2,434

To this must be added the production of feldspar, apatite and other useful minerals, and hewn stone. The export value of hewn stone in 1898 was kr. 2,023,000, while the average for the years 1891—95 was kr. 852,000. The corresponding figures for feldspar were respectively kr. 181,700 and 136,800, and for apatite 197,600 and 170,700.

Mining for apatite is carried on in the county of Bratsberg. The industry was of no importance until 1872, when rich lodes of apatite were found near Ødegaard, the result being the establishment of large works employing up to 800 men. The production has reached 17,000 tons of the value of 2 million kroner. Some mines have been worked by Frenchmen and others by Norwegians, but the industry has of late years been considerably reduced.

Feldspar, which occurs in coarse-grained lodes together with mica and quartz, is mined at different places in the county of Smaalenene, and in the coast region from Bamle to Arendal. The output as a rule varies between 6000 and 12,000 tons.

Some quartz and mica is produced together with the feldspar.

Soapstone is quarried in several places round Trondhjem and in Gudbrandsdalen, and the Cathedral of Trondhjem has been its chief consumer. It seems as if the employment of soapstone for building purposes is becoming more common, and this kind of stone appears in some places in considerable quantities.

Roofing-slate is produced in Valdres where the slate is of a pretty green colour, in Voss, Stjørdalen, in Gudbrandsdalen and in several other places.

From early ages, millstones have been produced at Selbu.

Whetstone has also been quarried from time immemorial at Eidsborg in Telemarken.

Hewn stone has been produced in Norway in increasing quantities. The kinds of stones that are quarried are granite, syenite, augite-syenite, gabbro and porphyry.

The most important quarries are situated near Fredrikshald, Fredrikstad, Larvik and Drammen.

Limestone is quarried in several places, and considerable quarries of it are found in the silurian strata round Kristiania. Very rich strata of marble occur in several places, chiefly in Nordland, in Salten near Fauske. In the last-named place the quarries are worked on a relatively large scale. The marble is chiefly exported to Copenhagen. The Norwegian marble is partly calcite marble and partly dolomite marble. It is white, bluish white or grayish white, and it also occurs with red and black shadings. There are close and coarse-grained varieties, and it takes a glassy polish.

The dolomite marble is sometimes brittle. The layers occurring at Fauske are some six hundred feet thick and can be followed for about ten miles. The output is therefore dependent only on the demand.

Many minerals containing rare metals and earths occur in Norway, for instance round the Langesund Fjord and Arendal. These minerals are highly treasured in scientific collections, and rare specimens from Fredriksvern, Brevik, Arendal and other places are found in almost all collections of minerals.

INDUSTRY

I. GENERAL SYNOPSIS.

NEXT to agriculture, industry is the livelihood that is of the greatest importance to the Norwegian people, considered with reference to the number of people for whom it provides a living. According to the latest census (1891), out of the total population of Norway, — 2,004,000 individuals, — about 462,000, that is to say 23 %, were directly or indirectly connected with industry (inclusive of some kindred trades like mining, making of highways and railroads). For the sake of comparison, we may mention that out of the population of Sweden almost exactly the same percentage, that is to say 22.7 %, were connected with industry, while in Denmark 28.6 % of the population were thus engaged. In France 26 % of the population are engaged in industry, in Austria the same percentage, while in the German Empire (1895) 39 %, and in Switzerland (1888) 40 % are similarly engaged.

The industrial population of Norway has been steadily growing of late, a circumstance which is apparent from the fact that in 1876 it numbered only 353,000 individuals, that is to say 19 % of the aggregate population, and in 1865 about 250,000 (about 15 %). The growth of the Norwegian industry, at any rate of the manufacturing industry, is, however, still more pronounced, if we look at it with reference to the production. In the sixties this was still of little importance, but during the last generation has grown considerably in a number of branches. It is to be regretted that there are no statistics available with reference to the total production, but the statistics of our exports show that the progress has

been very great. Our export of industrial products has gone up from about 1½ million kroner annually in 1866—67 to 45 million kroner as an average for the years 1896—98*). (The export value of all kinds of timber and fish-oil has risen during the same period from 34½ million kroner to nearly 45½ million kroner). Norwegian industry has also made important progress as regards the quality of the products.

According to the latest census, the total number of persons who made their living by industrial occupations, were divided in the following manner among the chief branches of industry, and according to their social position and personal circumstances.

	Persons engaged in industry on their own account		Officials, clerks, foremen, etc.		Workers employed		Total	Aggregate number of individuals, inclusive of dependent family and servants.
	Men	Women	Men	Women	Men	Women		
Manufacturing industries . .	1,080	63	3,782	153	36,327	7,873	49,278	Abt. 140,000
Handicraft . . .	31,166	1,567	576	98	39,424	2,662	75,493	„ 200,000
Minor industries	2,688	28,097	57	51	4,208	9,907	45,008	„ 65,000
Total	34,934	29,727	4,415	302	79,959	20,442	169,779	Abt. 405,000

Among the afore-mentioned workers there were 1885 children under fifteen years of age, among them 1,055 engaged in manufacturing industries (770 boys and 285 girls), 600 in artisan industries (579 boys and 21 girls), 230 in sewing and other minor industries (160 girls and 70 boys).

II. THE DEVELOPMENT OF INDUSTRY.

A. HANDICRAFT, MINOR INDUSTRIES AND DOMESTIC INDUSTRIES.

The industries carried on in the homes and by artisans in Norway existed long before the kingdom was united under King

*) In 1896, 44.5; in 1897, 50.4; in 1898, 41.6; see also Article «Commerce and Shipping.»

HARALD HAARFAGRE in 872. There could, however, be no artisan-class before the town-life developed in the eleventh and twelfth centuries. But the art of making clothes as well as farm implements, and the art of manufacturing (or at least repairing) arms were generally known among the people, and on every farm the inhabitants, as a rule, were able to help themselves. Individuals who had acquired a greater proficiency than their neighbours, also worked for others. Skill in building houses and ships, in wood-carving, and especially in making weapons was held in special esteem. It seems, however, that after the close of the Viking age, the art of making weapons fell into decay among the people generally, and as a national art. — It was the pride of the women of that time, as of the present day, to be able to embroider with taste. — The national homespun cloth was the material most used by the people in the middle ages, as it is still. The well-to-do classes, however, used a good deal of foreign, especially English and Flemish, cloth.

From the thirteenth century we have interesting information about the condition of handicraft in the most important town of the country at that time, Bergen. The laws of that time mention a number of different kinds of artisans, such as shoe-makers, furriers, goldsmiths, comb-cutters, painters, saddlers, tailors, cuirass-makers, sword-grinders, joiners, coopers, millers and others, to whom certain quarters and lanes of the town were assigned, where they might carry on their different trades. A large proportion of these artisans, who seem to have been very numerous, had immigrated from Germany; and the number of these immigrants increased much during the 14th and 15th centuries, as the power of the Hanse steadily grew, at the expense of the Norwegians, who, it would naturally be supposed, originally formed the major part of the artisans in Bergen, as well as in other towns of Norway.

Simultaneously with the invasion of the foreigners into the trades of our towns, the artisan skill of the Norwegians also decreased, especially after the middle of the 14th century. It may be considered as a turning-point for the better as regards the nation, when in the years 1557 to 1559, CHRISTOPHER WALKENDORF, the energetic Seignior of Bergen, succeeded in breaking the power of the Hanseatic artisans of that town, whereafter the larger part of them left the town and were replaced by others who, although largely of foreign extraction, at any rate became Norwegian citizens.

The corporate system has been for centuries of the greatest importance to handicraft in Norway, as well as in other civilised countries. As early as the 13th century, we find in our country guilds of artisans, which, however, about the close of the century, were suppressed by the state. Afterwards the Hanseatic artisans introduced their corporate organisation into Norway, but when in the 16th century, as already mentioned, many of them left Bergen, the corporations, properly speaking, ceased to exist there for a time. It seems, indeed, as if the different artisans united in a kind of corporate association resembling the guilds; but towards the close of the 16th century, a great freedom of trade was prevalent, partly with unhappy results: «Everything is pell-mell and upside down,» says a contemporary writer. «The tailors go fishing salmon, the barbers are beer-house-keepers and merchants», etc. A decided change in this matter was caused by the decree of 1621 relating to artisans, journeymen and apprentices, by which the corporate organisation was firmly and exclusively established; and this organisation formed the basis of the position of handicraft, until the act of 1839 again introduced more liberal principles. Under the corporate system every kind of artisan had a monopoly within their own line, to which, on the other hand, they were restricted. It was especially forbidden in any manner to combine a citizenship as merchant and artisan. In order to become a master artisan it was necessary to have been apprenticed for a certain number of years, and thereafter to have been a journeyman for a certain length of time; and in addition to this it was necessary to stand a master's test. It may be mentioned that in 1839 all artisans were not organised in corporations, but chiefly those embracing the most important trades and working in the old towns; thus in Bergen there were 14 corporations, in Kristiania 6, etc., 46 corporations in all. In conformity with the provisions of the act of 1839, the corporations have gradually ceased to exist, and access to the different trades of artisans is now, also by virtue of the additional law passed in 1866, as a general rule open to every man and woman of the age, and fulfilling the requirements for obtaining citizenship in a town. In 1894, however, the important provision was introduced, that in order to obtain citizenship as an artisan, either the tradesman himself, or the person managing his business, must have done a probation work. The act of 1839 had done away with the necessity of examinations outside the corporations,

and only required a certificate of ability from two reliable men as a necessary condition for obtaining such citizenship. This too easy access was partly the cause of several abuses, for which reason the new law has been received with great satisfaction by the artisan class. Combination of citizenship as artisan and as merchant has been permitted since 1866. Since the same year, permission has been given to anybody to carry on trade as an artisan without citizenship, provided the work is done without hired help.

In the country districts freedom to work was formerly granted only to the most necessary artisans, e.g. tailors, shoe-makers, blacksmiths and carpenters. Other trades, such as tanning, dyeing, etc., could only be carried on by special permission. The products of the country artisanship were not allowed to be introduced into the towns, or exported abroad. By the act of 1839, the carrying on of trade as an artisan was made free in the country districts, but work could not be done for townspeople except at a distance of seven miles or more from the town in question; this distance has afterwards been shortened, and since 1876 the carrying on of handicraft as a trade in the country districts has been made entirely free.

The artisan skill and energy of Norwegian workmen, even as late as the 18th century, was on the whole not very great. In the thirties of this century the matter was considerably improved, and about the middle of the century handicraft in our towns, especially in the larger ones, was steadily progressing.

The freedom of trade which has been extended, especially since 1866, caused the artisans considerable difficulty, which they seem, however, to have surmounted in a creditable manner, having been able to maintain their position as an independent class of society. Other circumstances, such as the depressed economic conditions towards the close of the seventies and during the eighties, and also, in a very considerable degree, the labour question, have exerted a hampering influence on the development of handicraft, especially in Kristiania. But on the whole, Norwegian handicraft has also of late been progressing in quality as well as in financial strength; wages also, have much increased.

In the country districts, handicraft on the whole is considerably behind that in the towns, which is a necessary consequence of the thin population, and the fewer opportunities of receiving a professional education. As a general rule, the work is only intended to meet the local demand, but in not a few places,

different kinds of artisan work or of domestic or minor industry, are now, as in previous decades, carried on intended for sale outside the district, such as joiner's or cabinet work, and other woodwork, the manufacture of woven goods, tin-ware and also iron goods. Boat-building also plays an important part in the coast districts.

Domestic industry, fifty years ago, was more extensively carried on than now. In an official report from the middle of the century relating to the economic condition of the country, we read: «In most districts of the country, the women make whatever is necessary of linen, cotton and woollen goods for the clothes of the family, and the men manufacture the necessary farm implements. In several districts some products of domestic industry are prepared for sale, such as canvas, homespun cloth and to some extent, finer linens.» Domestic industry was at that time mostly progressing, but in some places it was decreasing, because it was found cheaper to buy foreign clothes than to make them at home. — The easy and cheap means of procuring necessities by buying products of domestic or foreign manufacture, partly in connection with other causes, has exerted, since the middle of the century, a rather restrictive influence on domestic industry, and to some extent caused a noticeable decline. On the other hand, several districts report progress in domestic industry; and of late years increasing interest has been shown, and efforts made for its advancement, by means of schools for domestic industry, exhibitions and places for the sale of the various products. «The Norwegian Domestic Industry Association» (founded in 1891) has now a richly-assorted and well-furnished shop in Kristiania. The most interesting products of home industry in the country districts are the well-known national carvings, sheath-knives, several kinds of household goods, ski, sledges, etc. Among the products of female domestic industry may be mentioned sewn and embroidered goods, in which the old Norwegian patterns prevail, and woven goods of wool and cotton, knitted goods, etc. Of late especially, the interest for the old national fine weaving has been greatly increased.

B. THE HISTORY OF FACTORY INDUSTRY.

The development of the factory industry in Norway chiefly belongs to the 19th century, although we also have examples of industrial activity during the earlier centuries. Thus one branch

of modern factory industry, the saw-mill industry, dates as far back as to about the year 1500. It was only about fifty years later, however, that this industry attained any importance in our country. There are also traces of other establishments, but it is only about the year 1700 that a manufacturing industry, properly so called, can be said to have commenced. At about that time, the first paper-mill and the first oil-mill were established in the country, and somewhat later the first groats-mill came into existence. The Danish-Norwegian government during the succeeding period was anxious to advance the development of national industry, but the means employed by it for that purpose, during those brightest days of mercantilism, consisted chiefly in exclusive privileges, prohibition of importation, and high protective duties, and did not lead to the result desired. The king also personally participated in the industrial activity; thus in the year 1739, the salt-works at Vallø were established for the account of the government; and in the year 1775, the government bought from the Norwegian or «Black» Company, which had been in existence since 1739, the glass-works that this company had established. But the movement was still unsuccessful. Several important branches of industry altogether succumbed. As regards metal industry, the production was limited to some plain, rough iron-ware and nails; and the textile industry was almost exclusively represented by the spinning and weaving industry that was carried on in the state-prisons and houses of correction (rough woollen and linen goods). Towards the end of the century, some rope-walks, paper-mills, tobacco-factories, brick-fields, powder-mills and some other scattered establishments deserving the name of factories were found in the country, while the chief bulk of industrial establishments consisted of small saw-mills, flour-mills, etc., which, as a rule, worked only for the local consumption, and were scattered over the whole country, and could only in a limited sense be considered as representatives of manufacturing industry.

During the last quarter of the last century, when the conditions were very favourable for commerce and shipping, it seems as if industry were entirely overshadowed, and no important improvement took place within the first decades of the 19th century. In 1835, the statistics show 4219 industrial establishments, but out of these 3398 were saw-mills. Of the remainder, 366 were distilleries, the rise of which dates back to the year 1816, 193

brick-fields, 79 tobacco-factories, 61 malt-mills, 29 rope-walks, etc., and almost all these works were carried on in an artisan way. The textile industry was still almost exclusively carried on in the houses of correction, where machine power was unknown, and there was not a single machine factory. In the forties, however, good progress was made, so that the important branches of textile and metal manufacturing commenced to attain a certain prominence at the very beginning of the second half of the century. Most vigorous, however, was the growth of industry during the years 1865 to 1875, when several new branches of industry, some of which were afterwards to play a more prominent part in our export, were awakened to new life or appeared for the first time. Thus the match-factories, which in 1850 employed 30 labourers, in 1875 gave employment to 1293 individuals, and the breweries, which, about the middle of the century employed only 175 men, had grown in 1875 to employ 1407 men, partly in consequence of the very pronounced decrease in the distillation of liquor, due to a change of legislation which took place after the year 1845. During this period, the production of nails and horse-shoe nails for export purposes commenced to attain a certain prominence: but a new branch of industry which appeared in the country in the sixties viz. the production of wood pulp, was of much greater importance for the future economic and industrial development of the country than the above-mentioned branches. The first wood-pulp mill in Norway was established in 1863, and was calculated to supply what was required for home consumption only; and it was only in 1868 that the first pulp-mill for exporting purposes was established. In addition to this, we shall only mention the development which the saw-mill industry had on account of the complete repeal of the old saw-mill privileges, and the development due to the introduction of planing-machines. At the same time several of those branches of industry which, up to that time, had been chiefly carried on by individual artisans, such as rope production, tanning, brick-making, etc., underwent a development in the direction of a consolidation and the use of machinery in the production.

The second half of the seventies was a period of industrial decline, which the following five years were only able to neutralise. During the years 1886—90, on the other hand, the development was favourable, but this period was followed by a period of stag-

nation until 1896, when the improved condition of the world's markets again aroused international production to new life. In 1897, something occurred which may turn out to be of considerable importance for the industrial development of Norway, viz. that the commercial treaty between Norway and Sweden, which, with different modifications, had been in force throughout the union of the two countries, ceased to exist, having been denounced by Sweden. The common industrial market was thus dissolved, and mutually prohibitive tariff rates took its place, whereby a sudden and very strong industrial activity was caused in Norway, assisted by good times for commerce and shipping, and an unusual activity in our foreign markets. Our country has now a number of large manufacturing establishments provided with up-to-date machinery, and this is especially the case in the wood manufactures, and in the machine industry, but also in other branches of industry.

The rather considerable rainfall, and the peculiar topographical structure of the country with its wide mountain plateaus and the step-formation in the valleys have supplied Norway with superabundant natural motive power in the waterfalls, of which there is a greater abundance than in any other land. A large number of these falls, representing millions of horse-power, are conveniently situated, and ought to ensure a continually increasing development of the industries of the country, especially in those branches of manufacture where a very strong motive power is needed. A flourishing industry for exporting purposes on the other hand, is hampered by the poverty of the country as far as raw materials are concerned, by its rough climate and by the relatively high wages, and the defective industrial education of the labouring population, etc.

The total number of manufactories in Norway at the end of the year 1895, was 1910, employing in the aggregate 59,800 individuals (inclusive of officials and clerks). This number has been considerably increased since that time, and can now be estimated at about 70,000 persons. In the year 1850, the aggregate number was 12,700.

In those branches of industry that are subject to factory inspection (inclusive of mines, etc.), there were employed in 1896 3484 motors, representing a total of 127,000 horse power; in 1898 the horse power had been increased to 157,300, of which 110,400 was produced by hydraulic power, 44,800 by steam, and 2100 in other ways.

During the last few years, an energetic commencement has been made of the use of electric motive-power, partly on the basis of steam, but far more by the transmission of power through turbines at the waterfalls. Several town corporations have bought up the waterfalls in their neighbourhood, and have begun to erect in some cases considerable works for the production not only of electric light (and in the case of the larger towns, electric tramways), but also motive power for both small and large industries.

III. BRANCHES OF INDUSTRY. LOCAL DISTRIBUTION.

A. MANUFACTURING (FACTORY) INDUSTRY.

We reproduce here from the official factory statistics for the year 1895 some information bearing upon the importance of the different branches of industry and their local distribution over the country. It should, however, be noted that a considerable number of factories have been established since that time, but that as regards these, we have not sufficiently complete statistical data to enable us to take them into consideration.

For the branches of industry that play the most important part in Norway, see the following table:

Branches of Industry	Establishments	Work-people.	Days' work (in thousands)
Wooden ware	383	12,073	2,698.9
Machines, etc.	191	9,318	2,530.9
Textiles	167	8,805	2,477.4
Paper, leather, and india rubber	196	7,720	2,099.2
Food and beverages	496	7,306	1,782.3
Earth and stone.	143	5,244	1,035.1
Metals	78	3,308	913.7
Chemicals	62	2,307	565.8

As the best standard for the relative importance of the different branches we have here selected the number of days' work performed in each branch in 1895.

The production of *timber* and *wooden ware*, besides being the largest, is also the oldest branch, and one of those which, as regards up-to-date machinery and quality of the product, are in

the first rank. This is especially the case with the most important branches under this head, viz. the saw and planing mill industry, which was represented by 309 establishments, and had more than 82 per cent of the day's work belonging to the branch. This industry is represented in all the counties of the country excepting the two northernmost. It is most largely represented along the large rivers that allow of the floating of timber. The timber establishments are of special importance in the counties of Smaalenene and Akershus, and particularly in and around the town of Fredrikstad, they are altogether predominant with several large planing and saw-mills working for export. They are also important in the counties of Buskerud and Jarlsberg-Larvik, and in the diocese of Trondhjem there are some rather important establishments in this branch of industry.

In the *machinery industry*, which has only come to be of any importance in Norway during the last fifty years, we still have a good deal to learn from the old industrial countries, although several of the establishments of this kind, e.g. several of the large mechanical work-shops and iron ship-building works, which make up the chief parts of the group (1,985,300 days' work) have gained a reputation for good, solid work, and have exhibited with honour at several of the international exhibitions. The most important establishments of this kind are in Kristiania, among them the largest one in the country, the Nyland mechanical works (822 work-people); there are also several important machine work-shops at Fredrikstad, Bergen, Trondhjem, etc. On account of the development of steam shipping, the ship-building works intended for wooden ships, belonging to this branch, have of late years lost much of their importance, and in the year 1895 had only 1148 workmen, as compared with 5741 in 1875. To this group also belong 22 carriage manufactories, 2 railway-carriage factories, etc.

Unlike the machine industry, the *textile industry* belongs to a greater extent to the country districts than to the towns, as regards the situation, although several of the more important establishments have been founded on the country territory in the immediate vicinity of towns. Among these are the Nydalen spinning and weaving mills near Kristiania (1000 workmen, inclusive of clerks, etc.), in the year 1895 the largest factory in the kingdom. The spinning and weaving mills, numbering 64, with 1,779,100 days' work, occupy a prominent position in this group; and next

to them come the 16 jersey factories and 37 roperies. These last-mentioned factories are chiefly found in the western part of the country, especially at Bergen; the other branches of textile industry are especially carried on in and near Kristiania and in Southern Bergenhus county.

The next group, *the paper, leather, and india rubber industries* owe their important position among our industries to the production of wood-pulp, which commenced in the sixties, and to the development of the paper industry, with which it was connected. In 1895, the kingdom had 15 cellulose factories, 56 pulp-mills and 13 paper-mills, representing together about 81 % of the days' work belonging to the group. The chemical wood-pulp (cellulose) is mostly produced in Smaalenene, where probably the largest manufacturing establishment of the country at the present time, Borregaard Cellulose Factory, is situated, and in the counties of Buskerud and Bratsberg, where the mechanical wood-pulp is of the greatest importance. Of other establishments we may note 87 tanneries, most of them small, scattered all over the country and a few factories intended for the paper industry.

Among the manufactories intended for the production of *food products and beverages*, etc., we must in the first place note 252 flour-mills, most of them small. On the other hand, 44 breweries and 40 tobacco-factories, which chiefly belong to the towns and are especially largely represented in Kristiania, have each more days' work than the whole flour-mill industry. The tinning industry is of particular importance at Stavanger, but is also represented in Smaalenene, Hedemarken, etc. Among these factories we have also reckoned the milk-condensing factories, which work chiefly for export.

Under the head of *the working up of earth and stone*, the 91 brick-kilns, 6 glass-works, 11 potteries and china factories and 17 lime-kilns play the most important part. About one half of the day's work performed at the brick-kilns falls to the share of the counties of Smaalenene and Akershus; 5 of the glass-works are situated near the Kristiania Fjord, and one in the western part of the country. At Ekersund there is a fairly large faience factory, and at Porsgrund a rather large china factory. When we finally mention a cement-mill situated near the Kristiania Fjord, we have accounted for the most important establishments of this class.

In the *metal industry*, the chief establishments are: 4 horse-shoe-nail factories situated near Kristiania, working largely for ex-

port, 7 nail and rolling mills and iron and steel wire factories, and 14 iron-foundries. We may also mention iron and steel works in the county of Nedenes. Furthermore, there are some gold and silver manufacturing businesses in the larger towns and also, especially in the capital of the country, some factories for various metal articles (ladders, scales, locks, etc.).

The *chemical industry* in Norway, when we leave the match-factories out of account, is very poorly developed, inasmuch as only the manure-factories connected with the fisheries and mostly situated in the northernmost counties, and the whaling establishments in Finmarken, are of any importance. The match-factories, of which there are 8, represent more than one-half of the days' work in this branch. These establishments especially produce sulphur matches intended for export to transmarine markets, but on account of the keen competition they have a very hard struggle for existence. It may be expected, however, that in the near future, this group will be of far greater importance to Norwegian industry, inasmuch as at the present time several large establishments are being founded, or are already working, intended for the production of calcium carbids. This branch of industry, which requires much and cheap motive power, seems to be especially adapted for the conditions of our country.

As regards the manufacture of *articles of dress*, which is chiefly concentrated in the towns, the mantle, shoe, and hat factories are of the greatest importance. In 1895, this branch employed 1943 hands (523,800 days' work).

The remaining three groups (the production of articles intended for heating and lighting purposes, oils, etc., graphic industry and sundry other businesses) are of little importance. Among the most important coming under this head we may mention 11 gas-works in the towns and 30 fish-oil refineries, nearly all the latter being situated in the diocese of Tromsø, where the most important cod-fisheries are carried on.

For the whole country, there were on an average about 31 work-people (inclusive of other functionaries) employed in every factory. 1236 factories, that is to say 65 % of the whole number, had a working staff of less than 21 persons; of the remainder, 547 had between 21 and 100, 77 between 101 and 200, 17 between 201 and 300, 17 between 301 and 500, and 6 had more than 500 workmen.

In 1895, about the same number of factory hands were living in the country districts as in the towns, although the number of factories located in the latter was smaller. On the other hand the towns had a larger number of days' work (7.8 million compared with 7.2). As a matter of fact, however, the preponderance of the towns in this respect is considerably larger, because a great number of factories located on country territory in the immediate vicinity of towns, owe their development to the latter, and are owned by inhabitants of the towns. The reason why our manufacturing industry has not concentrated itself more than it has hitherto done about the towns, lies in the necessity which it is under of utilising the water-falls, which furnish it with one of its chief motive powers.

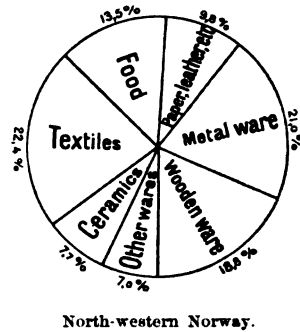
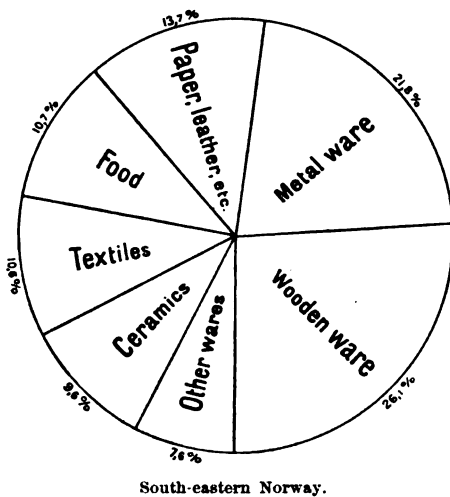
Kristiania, Smaalenene, Akershus, Buskerud and Southern Bergenhus are the counties which show the greatest industrial activity, while factory industry in the three northernmost counties, and especially in Northern Bergenhus, hardly plays any part as a livelihood. In the year 1895, the first three counties mentioned above, had as their share more than half the total number of days' work. Of greater interest, however, than the administrative distribution is the distribution according to natural centres of industry. For the most important of these, cf. the following table:

Towns	Factories	Work-people	Days' work (in thousands)
Kristiania	352	19,048	5,197.3
Bergen	115	4,924	1,347.7
Fredrikstad & Sarpsborg	61	5,409	1,300.7
Drammen	109	3,140	746.4
Skien & Porsgrund	46	2,004	542.9
Trondhjem	57	1,794	489.7
Fredrikshald	35	1,799	451.3
Stavanger	70	1,412	340.6

For the two first-mentioned industrial districts, the machine and textile industries are of chief importance, while the districts of Fredrikstad and Drammen are centres of the sawing and planing industry, the last-mentioned district and that of Skien being also centres of the wood-pulp and paper industries. At Trondhjem, the machine

branch represents about 40 % of the days' work, while Stavanger has its speciality in the tinning of food-products. Outside the industrial centres mentioned here, the factories mostly group themselves around Skedsmo (Lilleström), Larvik, Kristiansand and Arendal. The aggregate number of establishments in all the above-mentioned districts in the year 1895 represented about 50 % of the entire number of establishments in the country, while the number of days' work in the same was about 75 % of the whole number.

The following diagram shows the distribution of industrial activity between south-eastern Norway (i. e. Kristiania and the counties Smaalenene, Akershus, Hedemarken, Kristians, Buskerud, Jarlsberg-Larvik and Bratsberg) and north-western Norway (i. e. Bergen and the remaining counties).



B. INDUSTRY AS CARRIED ON BY INDIVIDUAL ARTISANS.

Of the various kinds of artisans, the most numerous according to the census of 1891, were:

a. Among the independent artisans:

- | | | | |
|-------------------------|------|----------------------------------|------|
| 1. Shoemakers | 8582 | of whom in the country districts | 6635 |
| 2. Joiners | 5444 | - - - - - » - - - - - | 4267 |
| 3. Tailors | 4577 | - - - - - » - - - - - | 3650 |
| 4. Smiths | 2620 | - - - - - » - - - - - | 2154 |

5. Painters	1561, of whom in the country districts	929
6. Carpenters, builders, etc.	1533 - — - » — —	1180
7. Bakers	1194 - — - » — —	498
8. Masons and bricklayers	912 - — - » — —	570
9. Coopers	798 - — - » — —	545
10. Butchers	735 - — - » — —	271

b. Among the wage-earners (exclusive of children under 15 years):

1. Carpenters	5998, of whom in the country districts	4156
2. Shoemakers	5998 - — - » — —	2885
3. Joiners	4276 - — - » — —	2009
4. Masons	4106 - — - » — —	1666
5. Tailors	3828 - — - » — —	1842
6. Smiths	2409 - — - » — —	1232
7. Bakers	2399 - — - » — —	615
8. Painters	2074 - — - » — —	551
9. Printers	1425 - — - » — —	98
10. Coopers	1029 - — - » — —	301

Of all the persons occupied in handicraft, that are above 15 years of age (74,893 in all), about half (35,038) were living in the towns.

C. MINOR INDUSTRIES (AND DOMESTIC INDUSTRY).

Of the women of more than 15 years of age (28,097 in all) engaged in independent minor and domestic industries, 12,794 were engaged in *sewing* (about one-third of them in the towns), 7,455 in *weaving and spinning* (the greater number of them, viz. 94 %, in the country districts, especially in the diocese of Hamar and in the western and northern coast counties), 1952 in *knitting*, 3758 in *laundry work*, chiefly in the towns. Among 2688 men engaged in minor industries on their own account, 977 were workers in *wooden goods*, etc. (884 of these were living in the country districts); 548 were *boat-builders*, almost exclusively in the country (chiefly in the counties of Nordland, Southern Bergenus, Nedenes and Romsdal); 248 were engaged in *making seines and fishing nets*, 237 made *fur bed-covers*, etc. Further, 9747 women (5613 seamstresses and 2435 laundresses, etc.) and 4138 men are accounted

for as working in minor industries for others; of these men, more than half were stone-workers.

It should be noted that these figures only indicate those who are engaged in minor and domestic industries as their chief livelihood. But this livelihood is also, to a considerable extent, carried on as an accessory trade, especially in the country districts.

BIBLIOGRAPHY.

Norges officielle Statistik.

A. M. SCHWEIGAARD. *Norges Statistik.* Kristiania 1840.

TVETHE. *Norges Statistik.* Kristiania 1848.

P. A. MUNCH. *Det norske Folks Historie.* 8 Vol. Kristiania 1852—63.

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

O. J. BROCH. *Le Royaume de Norvège et le Peuple Norvégien.* Kristiania 1878.

P. HANSEN. *Haandbog i norsk Haandværksret.* Kristiania [1887].

Norsk Specialkatalog over de norske Afdelinger ved den almindelige Kunst- og Industriudstilling i Stockholm 1897. Kristiania 1897.

COMMERCE AND SHIPPING

I. GENERAL SYNOPSIS.

THE geographical position and physical condition of Norway and the natural disposition of the Norwegian people; have always caused their intercourse with other nations, through commerce and shipping, to be of the greatest importance to the country, both as regards the economic and industrial life of the people and the whole national and cultural development.

Our country has by nature been poorly endowed in some respects, but in others richly. It is only a relatively small part of the surface of the country that is fitted for agriculture, and not many districts produce enough for the maintenance of their inhabitants. The importation of cereals, therefore, has always been a necessity. On the other hand, the Norwegian people possess great sources of wealth in the sea-fisheries and in the extensive forests of the country. The long coast-line, with its many well-protected harbours, renders shipping a livelihood especially adapted for our country; and the Norwegians have at all times excelled in their inclination and ability for this occupation. The Norwegians have also the reputation of possessing some capacity for commerce, and our foreign trade, even a thousand years ago, was already relatively of considerable importance. Our commerce and shipping, however, after having for several centuries, to a great extent, been carried on by the Norwegians themselves, fell gradually, ever since the fourteenth century, more and more, although never entirely, into the hands of foreigners, until, in the course of the last three or four centuries, and especially after the flou-

rishing period enjoyed by these branches of trade in the second half of the 18th century, Norway once more regained an independent economic existence.

The aggregate *foreign commerce* of Norway is estimated at kr. 439,000,000 for the year 1898, the value of the imported goods having been kr. 280,000,000 and of those exported, kr. 159,000,000, of which amount kr. 151,000,000 are represented by Norwegian products and kr. 8,000,000 by foreign products re-exported. In the year 1897, the aggregate value of the foreign commerce amounted to kr. 431,000,000, and in 1896 to kr. 388,000,000. Compared with the population of the country, this is rather considerable, being (in 1897) kr. 205 per inhabitant. The foreign commerce of France in the same year amounted to kr. 187 per inhabitant, that of Sweden to kr. 154 and that of Germany to kr. 149 per inhabitant. Denmark, on the other hand, has a considerably larger commerce per inhabitant, namely, kr. 324, and Great Britain and Ireland, kr. 341. Still larger is the commerce per inhabitant in Switzerland, Belgium and especially Holland. For Europe as a whole, the ratio per inhabitant is kr. 138 (without Russia kr. 182).

While our foreign commerce, relatively speaking, is about the same as the average of the Western European countries, the Norwegian *mercantile marine* occupies a peculiar position, inasmuch as there are only three countries in the world which, taken absolutely, have a greater tonnage than Norway, namely Great Britain and Ireland, Germany, and the United States of America. Relatively to the population of the country, the Norwegian mercantile marine unquestionably holds the first place. At the beginning of 1899, Norway had 1,068 steamships with a total net tonnage of 437,570 register tons, and 5,981 sailing-vessels, with a total tonnage of 1,120,808 register tons. The total estimated carrying power was 2,696,000 tons, each steamship ton being estimated the equivalent of 3.6 tons of a sailing-vessel. For the sake of comparison with some of the most important of other countries, we here subjoin the following table of the tonnage of steamships and sailing-vessels of more than 50 tons burden, on Jan. 1st, 1898 (river and lake vessels not included):

Countries	Steamships	Sailing-vessels	Total estimated carrying power	Estimated carrying power per 1,000 inhabitants
	Reg. tons	Reg. tons	Reg. tons	Reg. tons
1. Great Britain & Ireland	6,312,000	2,408,000	25,131,000	634
2. Germany	969,000	549,000	4,037,000	76
3. U. S. America	751,000	1,301,000	4,005,000	53
4. Norway	377,000	1,095,000	2,452,000	1,162
5. France	565,000	302,000	2,336,000	61
6. Italy	258,000	446,000	1,375,000	44
7. Spain	285,000	101,000	1,127,000	63
8. Japan	265,000	79,000	1,033,000	23
9. Sweden	188,000	258,000	935,000	186
10. British Australia	211,000	160,000	920,000	180
11. British America	85,000	532,000	838,000	115
12. Netherlands	191,000	95,000	783,000	159
13. Denmark	178,000	129,000	770,000	335

II. THE DEVELOPMENT OF NORWEGIAN COMMERCE AND SHIPPING UP TO 1850.

Even in the earliest times of the known history of our people, commerce and shipping were considered as fit means of livelihood even for the most distinguished men; and they were largely pursued also by such people. King BJØRN, for instance, who ruled as a petty king under his father, HARALD HAARFAGRE, had, at the beginning of the tenth century, merchant-vessels sailing to other countries, whence he procured many costly goods. The town at which he resided, Tønsberg, was visited by many merchant-vessels from the northern part of Norway, as well as from Denmark and Germany. Even the viking expeditions, which were chiefly carried on during the 9th and 10th centuries, were often combined with a good deal of peaceful trading and shipping.

With the introduction of Christianity into Norway in the 11th century, most of the viking expeditions ceased, and life gradually assumed a more civilised form. During this time the organisation of our earliest towns, and their first rise to prosperity

took place. An important trade, domestic as well as foreign, soon developed, being carried on partly by spiritual and temporal magnates, partly also, as it must be assumed, especially from the 13th century, by a real commercial class.

Our commercial legislation during the 13th century could compare with that of the North-German and Italian commercial towns. Norway also had a considerable number of merchant-vessels besides a strong military marine. Our most important articles of export were fish, furs and skins, butter, timber, etc.; while the chief articles of import were grain, dress goods, liquors, honey, etc. Those countries with which we did most of our trading during the middle ages, were especially England, Germany, Denmark, Sweden (at any rate the now Swedish island of Gotland), Flanders and to some extent France, as well as those countries that had been colonised by the Norwegians, namely Iceland and Greenland, which came under the crown of Norway in the 13th century. The intercourse was carried on partly by Norwegian, partly by foreign vessels.

For several centuries the most important commercial town, not only in Norway, but in the whole of Scandinavia, was *Bergen*, which was established about 1070. As an instance of the importance of this town may be mentioned that the number of dock-labourers, by a decree of 1302, was fixed at 200. Among other old Norwegian commercial towns may be mentioned *Nidaros*, (about 70 years older than Bergen, now called *Trondhjem*), *Oslo* (now *Kristiania*, which was founded in 1624 near the site of the old Oslo, which had just been burnt down, and whose citizens were to move to the new town; the old Oslo now forms one of the parishes of the capital), and the above-mentioned town of *Tønsberg*, which is the oldest of our now existing towns.

In the 13th and 14th centuries, several commercial treaties were concluded between Norway and foreign powers. Thus in the year 1217, a commercial treaty is mentioned between Norway and England, which, among other things, is remarkable from the fact that it is the earliest commercial treaty extant, concluded between England and any foreign state. A commercial treaty of Nov. 10th, 1308, between Norway and Flanders exists in the archives of the town of Lille.

Our relations with the powerful Hanseatic League, which was founded in 1241, were of fateful importance for our national commerce. In early ages, the trade of foreign merchants with

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

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

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

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

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

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

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

In the course of the 17th century, the commerce and shipping of Norway received a great impulse, although it was to a certain extent seriously hampered by wars and other circumstances. The timber-trade flourished greatly, and came more and more into the hands of the growing Norwegian mercantile class in the towns, although the export was still largely carried on in foreign vessels.

By the town privileges of 1662, it was ordered that all export to foreign countries should be from the towns, a rule which had, indeed, been in existence since about the year 1300, but which it had not been possible to observe, especially as regards the timber trade. During the 16th, and the early part of the 17th century, this trade had also called into existence, or helped to develop, a number of new towns, so-called «loading-places» (ladesteder), in the south of Norway, at the mouths of rivers in which timber was floated to the sea. Among these towns were Fredrikshald, Moss, Bragernes (a part of Drammen) and Arendal. The commercial freedom of the «loading-places» was considerably restricted by the above mentioned town privileges; but they retained the right of shipping timber (and importing grain).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The flag of the Dano-Norwegian monarchy, the old Danish colours, was well known in most European countries, and might be seen in Asia, America and Africa. During the years 1800 to 1803, the European ports outside the monarchy were visited

on an average by 4,072 vessels of about 500,000 tons' burden, carrying that flag. Almost half this tonnage went to the British Isles, chiefly Norwegian vessels carrying timber. The other European countries were also visited by many Norwegian ships, but the vessels visiting foreign continents were chiefly Danish. About 43 % of the total mercantile marine of the Dano-Norwegian monarchy (Schleswig-Holstein included) in the year 1800, were Norwegian.

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

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

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

1826. Our fish-trade was relatively more profitable especially on account of the increasing quantity of winter herring.

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

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

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

The total value of the Norwegian export about 1838 has been calculated at about kr. 19,040,000, of which kr. 6,740,000 are represented by timber, kr. 9,920,000 by fish products, and the rest kr. 2,380,000 by silver, iron, copper, smalt and other

articles. In the forties the total value of the exports was calculated to be kr. 26,800,000 (timber kr. 9,200,000, fish products kr. 13,600,000, and other goods kr. 4,000,000).

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

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

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

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

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

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

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

**III. NORWEGIAN COMMERCE AND SHIPPING
SINCE 1850.**

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

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

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

Years (on an average)	Tonnage (in thousands of reg. tons) of Norwegian vessels cleared with cargo			
	From Norway for foreign ports	From other countries		Total
		For Norway	For other countries	
1846—50	419	143	248	810
1851—60	570	200	530	1,300
1861—70	790	288	1,310	2,388
1871—80	969	471	2,794	4,234
1881—90	1,316	781	3,558	5,655
1891—95	1,560	1,098	4,292	6,950
1896—98	1,765	1,166	5,680	8,511

It appears from this table that the Norwegian mercantile marine at present performs about ten times as much work as was

done by our ships half a century ago, and that the advance has been greatest with reference to the carrying trade between foreign countries. — Reckoning by the tonnage, about two thirds of the Norwegian vessels leaving port in 1898 were steamships.

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

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

The shipping trade between Norway and foreign countries in 1898 was more than four times as large as in 1850, the aggregate tonnage entered into Norway having risen from about 700,000 register tons to 3,140,000 register tons. The number of vessels only rose from 8,542 to 14,456, and consequently their average burden rose from 81 to 217 register tons. The share taken in this trade by the Norwegian flag has decreased somewhat, namely from three fourths to two thirds, one great reason of this decrease being that the conversion from sail to steam commenced at a later period with us than with the other most important seafaring nations, and also that still only about half the regular steamship lines between Norway and foreign countries are in Norwegian hands. During the years 1871—75, the annual

average tonnage of all the steamships entered was 311,000, whereof only 37 % carried the Norwegian flag; but in 1898 there were 1,974,000, whereof 58 % carried the Norwegian flag. — Of the total tonnage entered in 1898, 66 % were Norwegian, 12 % British, 8 % Danish, 7 % Swedish, 4 % German, 1½ % Russian and Finnish, 1 % Dutch and ½ % of other nationalities.

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

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

Years on an average	Value*) in millions of kroner, of			Years on an average	Value, in millions of kroner, of		
	Imports	Exports	Aggregate commerce		Imports	Exports	Aggregate commerce
1851—55	50.3	43.7	94.0	1881—85	158.2	114.8	273.0
1856—60	58.8	47.1	105.9	1886—90	165.5	119.1	284.6
1861—65	77.1	54.5	131.6	1891—95	211.2	132.4	343.6
1866—70	100.4	73.3	173.7	1896	240.2	147.8	388.0
1871—75	153.7	106.2	259.9	1897	263.7	167.7	431.4
1876—80	156.1	103.4	259.5	1898	280.2	159.3	439.5

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

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

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

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

The great advance made by Norwegian commerce and shipping during the last generation is, of course, closely connected with the extraordinary development of the world's commerce, and international intercourse during the same period. The mercantile marine of the world, as regards its effective carrying power, is now about five times as large as it was in 1850, and the total value of commercial transactions two and a half times as great as it was from about 1860 to 1865. From what has been stated before, it appears that the commerce and shipping of Norway, taken on the whole, has not only been able to keep pace with this rapid development of the world, but has even made a relatively more marked progress. Our commerce is now more than three times as large as it was in the first half of the sixties, and our effective tonnage is nine times as large as it was in 1850, although even at that time it

was comparatively important. Our share of the whole world's mercantile marine was at that time about 2.7 per cent, in 1879 it had increased to 5.7 per cent, but after that period it was for some time relatively reduced, because, as mentioned above, we had not yet commenced to acquire steamships to any large extent. Since 1886 we have, in that respect, kept up better with the development, so that our mercantile marine has maintained itself at about 5% of the total fleet of the world.

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

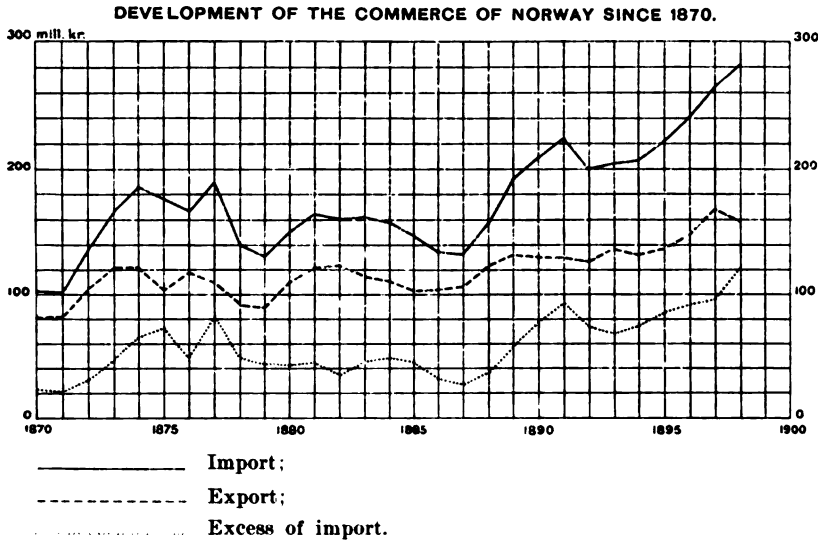
The development of our commerce and shipping has not progressed evenly from one year to another, but has been rather fluctuating. Thus the years 1857 and 1858, especially the latter, show a decrease, the reason whereof must chiefly be sought in the great European and American commercial crisis which occurred in 1857. This crisis, however, had rather a favourable than an unfavourable influence on Norwegian trade, because the result of it was that the Norwegian commercial life which had previously been largely dependent on foreign banking-houses, now grew more independent. This greater independence of our commercial life was also partly brought about by the development of our private banking-institutions, our wholesale commerce and our shipping.

During the sixties our commerce on the whole increased, the imports having gone up from kr. 63,000,000 in 1860, to kr. 103,000,000 in 1870, and the exports from kr. 50 or 60,000,000 to kr. 81,000,000. Our shipping during the same period made an extremely rapid advance, our mercantile marine having increased from 550,000 register tons to 1,000,000 tons.

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

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

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



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

IV. PRINCIPAL ARTICLES IMPORTED AND EXPORTED.

A. IMPORTED GOODS.

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

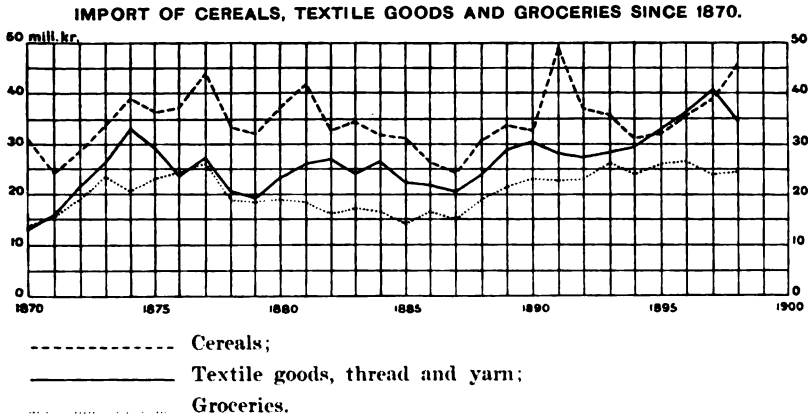
Among the articles of consumption, the *articles of food and drink* are of the greatest importance. In the years 1866 to 1870, we imported, on an average, of such goods to a value of kr. 52,000,000, and in 1898 of kr. 97,500,000; but their ratio to the total import of the country has gone down from 52 % to

35 %, which indicates a considerable increase in the national wealth. Nearly half the value of the articles of food and drink imported is represented by *cereals*, which, in 1898, we imported to the value of kr. 45,500,000. The importation of grain is at present much more extensive than in previous times, not only absolutely, but also relatively to the size of population, having increased from 2,400,000 bushels (3 bushels per inhabitant) about the year 1780, and an average of 4,800,000 bushels (3.3 bushel per inhabitant) during the years 1851—1860, to 15,500,000 bushels (7.15 bushel per inhabitant) in 1898. Of the grain imported about the year 1780, 33 % consisted of barley, 25 % of malt, and 29 % of rye; and in the fifties; 44 % of rye, 40 % of barley, 5.2 % of rye flour, and 3.8 % of wheat or wheat flour. In 1898, 49 % was rye, 23 % barley, 8.5 % wheat flour, 6.9 % rye flour and 2.4 % wheat.

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

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

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



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

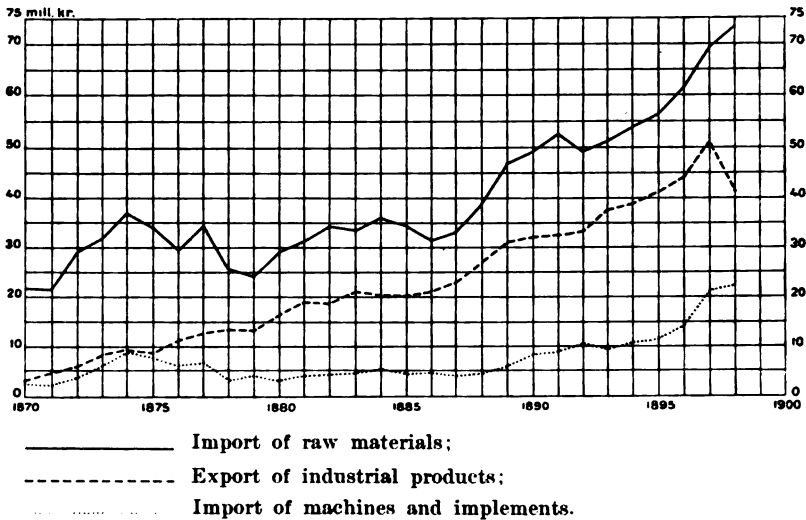
If we now turn to the *imports for production*, we notice that the greater part of the value is represented by *raw materials*, these amounting, in 1898, to kr. 73,000,000, while kr. 22,000,000 are represented by machines and implements, kr. 19,000,000 by ships, and 2.4 million kr. by naval stores.

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

The import of iron and steel has also increased very much, and still more that of *illuminating oils*, of which article we only imported about 20 tons per annum in the fifties, in 1875 5,000 tons, in 1897 about 40,000 tons, and in 1898 somewhat less — 37,000 tons. Of hemp, on the other hand, we now import not much more than in the fifties, and less than in the seventies.

Of *steam-engines, locomotives* and other machinery we imported in 1897 for 7.6 million, and in 1898 for 9 million kr. In the fifties and sixties we only imported for a few hundred thousand kr. of such goods, and in the seventies and eighties for a couple of million kr.

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



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

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

B. EXPORTED GOODS.

Timber and fishery products are now, as formerly, our most important articles of export. A characteristic feature, however, of our export trade of late has been the constant and very rapidly growing export of industrial products. Of the total value of exports in 1898 — 159 million kr. — 59 million kr. are represented

by timber and wooden goods, and 45 million kr. by fishery products, thus together 65 % of the whole export. During the five years 1871 to 1875, the annual export of timber and wooden goods amounted to 45 million kr., and of fishery products to 42 million kr., making a total of 82 % of the whole exports. From 1891 to 1895 the figures were 44 and 45 million kr. and 67 %, respectively.

Other exports were:

	Million kroner				
	1871--75 (average)	1891--95 (average)	1896	1897	1898
Norwegian products					
of agriculture and cattle-raising	3.86	11.58	12.53	15.36	15.71
> sealing, whaling and hunting	1.02	3.14	2.65	2.53	2.73
> mining and mineral industry, ice etc	7.08	9.50	11.52	10.79	13.39
> spinning and weaving industry	2.61	5.12	6.43	6.79	0.46
> other branches of industry	2.35	6.69	11.26	12.24	14.95
Foreign goods	2.56	8.03	10.02	8.02	7.88

The total export of Norwegian industrial products, — including, amongst other things, wood pulp (classed above among wooden goods), but leaving out of consideration dressed deals and boards, ships, fish-oil and margarine — increased between 1867 and 1897 from 1½ to 50.4 million kr., but in 1898 went down to 41.6 million kr. (in 1876—1877 we exported of this kind of goods, on an average, for 10 million kr., from 1886 to 1890, for 26.7 million kr. and from 1891 to 1895, for 36.6 million kr.).

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

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

*) See page 413; for the export of timber during the 16th and 17th centuries, p. 408—409; for that of the years 1804—06 p. 411.

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

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

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

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

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

Year (average)	Klipfisk	Stockfish	Herring (salted)	Fish-oil	Roe
	Tons		Thousand gallons	Thousand gallons	Thousand gallons
About 1695 ¹⁾	about 4,300		²⁾ 418	163	41
— 1731 ²⁾	about 3,900		990	abt. 154	84
1756—60 ²⁾	about 9,100		3,784	abt. 356	205
About 1780 ²⁾	9,400		946	389	167
— 1805 ²⁾		17,500	abt 1,320	915	510
1815—19.	1,500	7,800	3,982	491	218
1820—29.	4,500	12,900	8,272	865	⁴⁾ 565
1830—40.	8,400	15,500	13,156	843	550
1841—60.	10,300	13,700	15,400	1,478	583
1851—60.	16,600	15,100	14,826	1,437	733
1861—70.	22,900	14,600	21,375	1,899	878
1871—80.	36,800	18,900	19,991	2,893	1,221
1881—90.	41,800	16,600	18,966	3,419	1,254
1891—95.	54,600	18,300	20,042	4,345	1,206
1896—98.	41,800	17,300	23,232	3,769	1,151

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

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

¹⁾ From Bergen 1695—99, Kristiansund 1695—97, Trondhjem 1680—82, 84—88.

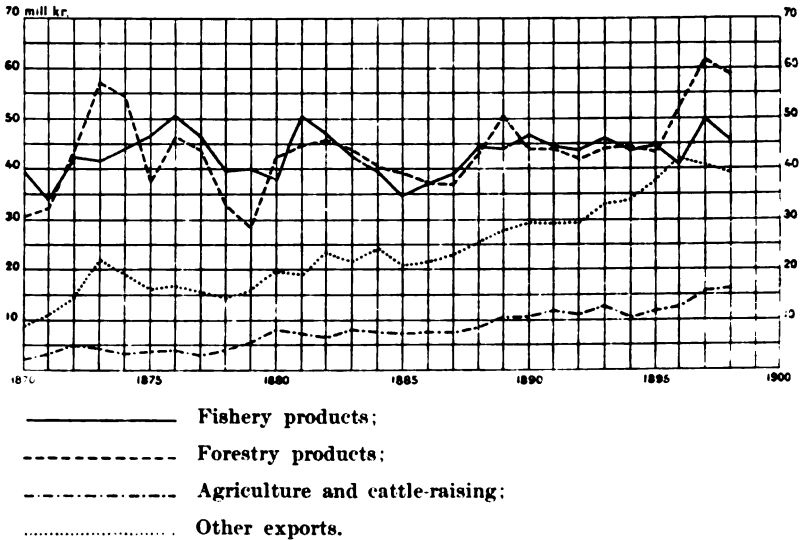
²⁾ From Bergen, Trondhjem (1733) and Kristiansund.

³⁾ Besides, 440,000 gallons of other salt fish.

⁴⁾ 1825—29.

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

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



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

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

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

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

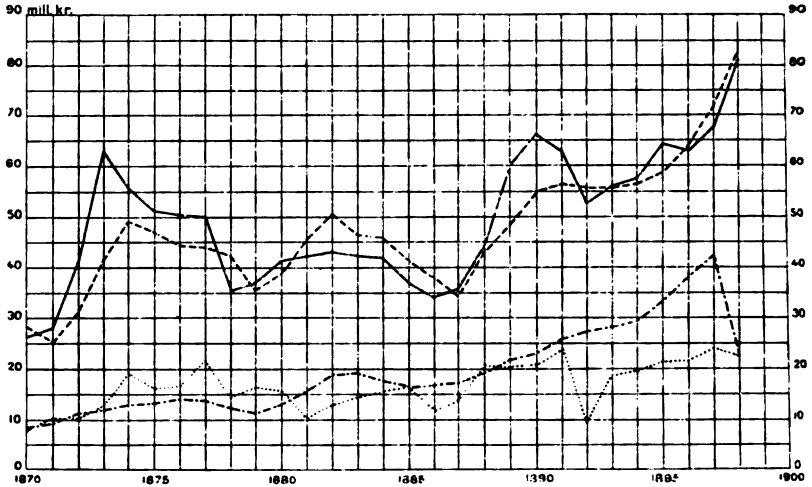
Countries	Value of imports (millions of kroner)			Value of exports (millions of kroner)			Total commerce (millions of kroner)		
	1866-70	1891-95	1898	1866-70	1891-95	1898	1866-70	1891-95	1898
1. Gr. Brit. and Irel..	24.7	58.7	81.0	21.5	45.5	66.3	46.2	104.2	147.3
2. Germany.	30.1	56.4	82.2	11.6	16.1	23.1	41.7	72.5	105.3
3. Sweden .	6.1	28.7	23.6	6.2	20.8	15.4	12.3	49.5	39.0
4. Russia . .	7.8	18.8	22.9	3.6	3.4	4.6	11.4	22.2	27.5
5. Holland .	2.8	8.5	12.0	6.4	6.3	9.3	9.2	14.8	21.3
6. Denmark .	17.5	10.4	14.4	4.1	4.6	6.9	21.6	15.0	21.3
7. Belgium .	1.3	7.8	12.5	1.2	4.6	6.7	2.5	12.4	19.2
8. U.S. Ame- rica	0.1	10.3	14.2	0.1	1.5	1.3	0.2	11.8	15.5
9. France . .	3.9	5.0	5.1	8.7	7.8	6.9	12.6	12.8	12.0
10. Spain . .	0.8	0.9	2.4	6.1	12.9	8.5	6.9	13.8	10.9
11. Other countries	6.6	5.7	9.9	4.1	8.9	10.3	10.7	14.6	20.2
Total	101.7	211.2	280.2	73.6	132.4	159.3	175.3	343.6	439.5

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

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

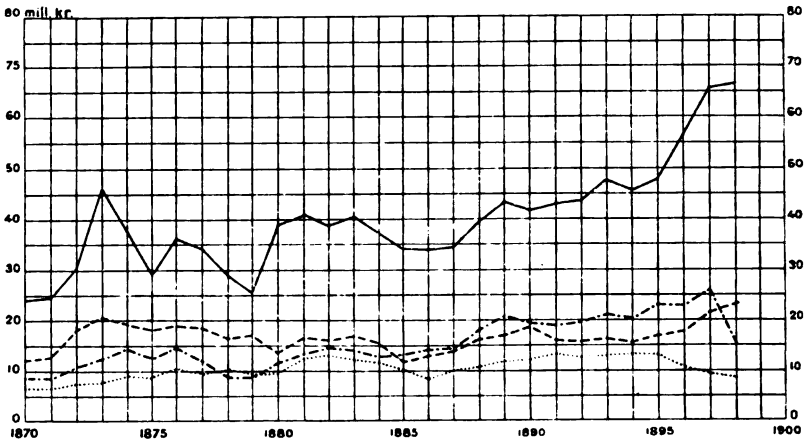
Denmark's share in our commerce, on the contrary, was much larger in 1866-70 than it is now, especially as regards the imports, as at that time more than 17 % of our imports came from Denmark (now only 5.2 %), and Denmark, next to England and Germany, was the most important country for our commerce.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

IMPORTS TO NORWAY FROM U. K., GERMANY, SWEDEN AND RUSSIA.



- Great Britain and Ireland ;
- Germany ;
- . - . - . Sweden ;
- Russia.

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



- Great Britain and Ireland ;
- Germany ;
- . - . - . Sweden ;
- Spain.

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

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

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

. As far as the exports are concerned, more than half the *timber* (in 1898 57 %) goes to Great Britain and Ireland. Belgium and Holland, in 1898, received 9 % each, Australia 7 %, France and Germany each 5 %, and South Africa 2½ % of our exported timber. Of *wood-pulp* two thirds go to the United Kingdom and the remainder chiefly to France and Belgium. Of the *fish products* (in 1898) 23 % went to Germany, 19 % to Sweden, (chiefly herring), 16 % to Spain (klipfisk), 13 % to Great Britain and Ireland, 7 % to Holland, 6 % to Italy, 4½ % to the Russian ports on the

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

VI. OUR MOST IMPORTANT COMMERCIAL TOWNS.

Of the aggregate foreign commerce of Norway in the years 1866—70 about 24 %, in 1881—85 36 %, in 1891—95 42 % and in 1898 40 %, fell to the share of the capital, Kristiania, while 19 %, 16 %, 17 % and 15 %, respectively, fell to Bergen, and 6 %, 5½ %, 7 % and 6½ % to Trondhjem. To these our three largest towns there fell a percentage of 49½ % of our total commerce from 1866 to 1870, and of 61½ % in 1898. The importance of the various towns, however, is very different according to whether we consider imports or exports. More than half the imports (52 %) in 1898 fell to the share of Kristiania, 16.3 % to Bergen and 6.6 % to Trondhjem, while of the exports only 18 % fell to the share of Kristiania, 13.2 % to Bergen, and 6.7 % to Trondhjem. As export towns of especial importance must also be mentioned the timber-trading towns of Fredrikstad and Drammen, which in exports exceed even Trondhjem. Not far behind Trondhjem comes Kristiansund, chiefly renowned for its export of salted and dried fish (*klipfisk*). For imports, Stavanger is the most important town, next to Trondhjem (3.5 %).

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

As a brief summary it may be said that the export of wooden goods takes place chiefly from the south-east, and the fishery exports from the west and north of Norway.

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

VII. THE MOST IMPORTANT SHIPPING TOWNS.

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

Towns	Steamships		Sailing-vessels		Aggregate tonnage	Aggregate effective carrying power*)
	Number	Tonnage	Number	Tonnage		
1. Bergen . . .	235	151,600	108	7,800	159,400	553,700
2. Kristiania . .	168	76,600	176	117,400	194,000	393,300
3. Tønsberg . . .	69	53,400	76	31,300	84,700	223,700
4. Stavanger . . .	69	27,100	366	64,500	91,600	182,200
5. Arendal . . .	23	8,100	180	88,300	96,400	117,400

Next in importance to the towns named in the table come Haugesund, with an effective tonnage of 86,900 tons, Drammen (77,000 tons), Porsgrund (57,500 tons), Grimstad (56,200 tons), Sandefjord (53,800 tons), Fredrikstad (50,500), Kristiansand (48,100), Kragerø (47,300), Mandal (46,000), Trondhjem (42,600). As regards

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

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

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

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

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

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

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

*) Of the tonnage annually arriving at, and departing from, British and Irish ports with cargoes, during the years 1896—98, — 73 million tons in all —, 53 million tons were sailing under the British flag, and 20 million tons under foreign flags, of which again 4.7 million tons were under the Norwegian flag.

Countries (or continents)	Norwegian tonnage engaged in the carrying trade in 1897			Gross freight, made, in- coming and out- going	Percentage of tonnage	Percentage of gross freight
	Arrivals	Depar- tures	Total			
	Thousand Reg. Tons	Thousand Reg. Tons	Thousand Reg. Tons			
1. Great Britain & Ireland	2,447	2,199	4,646	55.5	26.9	25.4
2. America	1,311	1,881	3,192	49.5	18.5	22.7
3. Northern and We- stern Europe ex- clusive of Scandi- navia and Great Britain and Ire- land	1,790	974	2,764	36.9	16.1	16.9
4. Norway	1,235	1,780	3,015	27.7	17.5	12.7
5. Sweden, Denmark and Iceland	636	797	1,433	16.8	8.3	7.7
6. Asia, exclusive of the Mediterranean, and Australia	752	668	1,420	15.8	8.2	7.2
7. Southern Europe and countries of the Mediterranean	314	237	551	10.0	3.2	4.6
8. Africa, exclusive of the Mediterranean	213	15	228	6.2	1.3	2.8
Total	8,698	8,551	17,249*	218.4*	100.0	100.0

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

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

*) In these figures each voyage is reckoned twice.

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

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

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

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

The most important of the *laws* at present in force with reference to commerce, dates from the year 1842; according to this law every person of age and good reputation in the towns, can, as a rule, obtain a trade-license. Certain public and private functionaries, and shipmasters are however excepted. A law of 1866 has permitted handicraft and trade to be carried on by the

same person. Some branches of trade may be carried on without a license. On the other hand, certain articles such as spirits and poisons, are excepted from ordinary trade, and subject to special license. In the country districts, general trade-regulations like those in the towns, were introduced by acts of 1857, 1866 and 1874. Formerly the country trade was much restricted.

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

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

X. PILOT SYSTEM.

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

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

pilots' widows, and 115 orphan children of pilots. The average amount of the pensions for the pilots was kr. 198, for the widows, kr. 68 and for the children, kr. 39; and the total amount of the annual pensions paid to these persons was kr. 111,147.

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

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

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

XI. HARBOUR ADMINISTRATION.

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

*) Before April 1st, 1900, 21.

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

***) Before April 1st, 1900, 6³/₄% of the fees went to the master-pilots.

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

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

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

XII. LIGHTHOUSES, BEACONS AND SEA-MARKS.

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

XIII. STRANDINGS AND SHIPWRECKS.

The strandings on the Norwegian coast are not numerous compared with the large amount of shipping which passes along it, especially along the southern coast towards the Skagerak. This is chiefly to be ascribed to the many good harbours that are to

be found almost everywhere, the good lighting of the coast, and the numerous good pilots. According to the somewhat incomplete statistics obtainable with reference to stranding and shipwrecks on the Norwegian coast in the year 1898, 25 vessels, 19 of them Norwegian, were wrecked. In 21 cases all on board were saved, while in the remaining cases, 15 men in all are supposed to have been lost.

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

Year	Sailing-vessels			Steam-vessels		
	Number	Tonnage	Percentage of total sailing tonnage	Number	Tonnage	Percentage of total steam tonnage
		Reg. Tons			Reg. Tons	
1886—90, average	209	68,522	4.6	7	2,781	2.0
1891—95, —	223	90,502	6.2	12	6,603	2.6
1896	197	88,184	7.1	13	6,958	2.1
1897	191	74,401	6.2	26	16,251	4.4
1898	191	78,034	6.8	20	10,016	2.4

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

XIV. LIFE-SAVING STATIONS AND BOATS.

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

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

XV. CURRENCY, WEIGHTS AND MEASURES.

The currency act of June 4th, 1873, which took effect on Jan. 1st, 1874, established the gold standard in Norway. The coin unit, according to the act of April 17th, 1875, is the krone of 100 øre, 1 kr. = 1.1013 sh. = $1\frac{1}{18}$ franc = $1\frac{1}{8}$ reichsmark. This monetary system was introduced according to the Scandinavian Coinage Union concluded between Sweden and Denmark in 1873, and acceded to by Norway in 1875.

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

BIBLIOGRAPHY.

Norges officielle Statistik.

- J. E. KRAFT. *Topografisk-Statistisk Beskrivelse over Kongeriget Norge.* D. 1—6. Kristiania 1820—35.
- O. J. BROCH. *Le royaume de Norvège et le peuple norvégien.* Kristiania 1878.
- A. M. SCHWEIGAARD. *Norges Statistik.* Kristiania 1840.
- M. B. TVETHE. *Norges Statistik.* Kristiania 1848.
- P. A. MUNCH. *Det norske Folks Historie.* 8 Vol. Kristiania 1852—63.
- O. A. ØVERLAND. *Illustreret Norges Historie.* I—V. Kristiania 1885—95.
- YNGVAB NIELSEN. *Bergen fra de ældste Tider indtil Nutiden.* Kristiania 1877.
- ALEX. BÜGGE. *Studier over de norske byers selvstyre og handel før hanseaternes tid.* Kristiania 1899.
- EDVARD HOLM. *Danmark-Norges Historie (1660—1766).* Kjøbenhavn 1885—98.
- A. N. KLÆR. *Historical Sketch of the Development of Scandinavian Shipping* (The Journal of Political Economy, Chicago, June 1893).
- L. H. VOGT. *Om Norges Udførsel af Trælast i ældre Tider* (Norsk historisk Tidsskrift, 2nd Series, Vol. V).

MEANS OF COMMUNICATION

ROADS.

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

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

Real *driving-roads* for wheeled vehicles were not constructed until later in Norway with its scattered population. The oldest is probably the road from the Kongsberg Silver Mines to the Drammen

river, which was built between 1625 and 1630. In the course of the 17th and 18th centuries, especially the latter part of the 18th, the main lines in the East Country, and thence over to the West (Filefjeld) and North Country (Dovrefjeld) were made practicable, while in the coast districts, west and north, they generally remained in their former condition. These oldest driving-roads often followed the original bridle-paths, up hill and down dale, with gradients of as much as 1 in 5, or even 1 in 3. Blasting was seldom employed, but on the other hand embankments were often built. On difficult sloping rock, wooden bridges were sometimes laid.

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

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

The *cross-roads* are made by the districts themselves, generally, however, with a contribution from the county funds, and of late years from the Exchequer also. In each separate county, the magistrates retained the controlling authority; but the fuller administration of the roads is conducted by road inspectors appointed by the county, county engineers. During the last few

years, however, a common administration of government and provincial road matters has been introduced by agreement in most of the counties (15 out of 18). The county engineers are appointed by the department after nomination by the county council, and superintend also the government roads, while the central administration, on the other hand, has some control over the cross roads.

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

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

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

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

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

Wheeled vehicles in the country were formerly almost exclusively one-horsed and two-wheeled — for the conveyance of people, *stolkjærrer* (2 persons) or *karioler* (1 person). With the new roads, two-horsed, four-wheeled carriages have become very general (about 70,000 four-wheeled carriages in 1895).

The bridges are now less frequently built of wood; iron or stone is preferred*).

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

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

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

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



View from the Stryn road.

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS.

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

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

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

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

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

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

POSTING.

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

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

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

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

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

On highways over the many uninhabited mountainous districts, where there is no opportunity of enforcing private posting and inn-keeping, the government has built stations, the so-called «mountain-stations» (fjeldstuer) whose management they place, however, in private hands, generally with support from the Exchequer. The origin of these «fjeldstuer» is, in many cases, a very old inn. Some of these at first were of an ecclesiastical

character, but at the time of the Reformation passed into the hands of the State. But in more recent times too, it has been necessary for government to erect «fjeldstuer», especially in the northern parts of the country.

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

RAILWAYS.

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

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

Relatively early, and about the same time as in the two other Scandinavian countries, the question of laying railways arose in Norway. In 1845 a private application was made for permission to lay a line from Kristiania to the southern end of Lake Mjøsen.

It was only by an agreement of 1850, however, approved in 1851, between some English capitalists and the Norwegian government, that a determination was come to regarding the construction of the line. By this agreement the State was to pay half the expenses of construction and also the expenses of acquiring the land. The English capitalists secured to themselves in advance a somewhat higher interest than the usual one on their advanced capital. The line (*Kristiania—Eidsvold*) was opened for traffic in 1854 (42 miles). Most of those who had anything to do with the construction of this first railway believed that it would be the only one. Not many years had elapsed, however, before the question of constructing new railways arose, and in 1857 it was decided that three new lines were to be laid.

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

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

ment railways of a total length of about 500 miles are either in course of construction or have been determined upon.

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

With these railways, however, those that are completed and those that are under construction or have been determined upon, the railway system is not yet fully developed. The construction of several, to some extent considerable, lines is still required for this end.

The purpose of the earliest railways was to connect the larger and more densely populated inland districts with the coast, or, in other words, the larger towns with their surrounding districts. In the first place it was thought necessary to connect the largest continuous inland inhabited district, namely, the east-country districts round Lake Mjøsen with the capital (the Kristiania and Eidsvold Line,



From the Voss Railway.

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

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

All these, as it will be seen, are local lines. The three lines that establish a connection with Sweden have more the character of main lines or trunk railways, namely, the *Kongsvinger Railway* (1862), eastwards, the *Smaalens Railway* (1879), running by a coast

and an inland line southwards from Kristiania, and the *Meraker Railway* (1881) from Trondhjem. Only 27 miles of the *Ofoten Railway*, which is now being built from the head of the Vestfjord to the large iron-ore districts in Norbotten and to the Swedish Norrland Railway, lies within the frontiers of our country. The cost of construction in this wild mountain country is estimated, however, at 9.3 million kroner.

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

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

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

By a vote of the same year, 1894, it was decided to extend the Jæderen Line to Flekkefjord, and thus the third natural trunk line of the country, the West Country Railway, may be said to have been established in principle, from Stavanger round the south of

Norway (via Kristiansand), to the Western Railway and Kristiania. It is estimated, that this line with its branches to the numerous coast towns, will be more than 370 miles in length. This line too, has to be taken through a mountain country that is very expensive to work; of the 10 miles nearest Flekkefjord now under construction, more than 3 miles is tunnel.

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

In order to complete the great natural main lines of the Norwegian railway system, as indicated by the structure of the country and the distribution of its inhabited parts (see the map), there still remains a continuation of the Northern Railway from Gjøvik via Gudbrandsdalen to Trondhjem, with a branch line to Romsdalen (if continued to Molde about 250 miles of new line). By this central line a systematic connection between the chief divisions of the country will be completed and all the existing railways of the country will be connected with the exception of the Ofoten Railway. It will be seen, however, that more than $\frac{1}{3}$ of this trunk line system still remains to be determined upon and laid. It amounts altogether to more than 2,500 miles, a truly great task to be undertaken by a people numbering 2,000,000 persons.

The limited amount of traffic on our railways very soon resulted in efforts to reduce, as far as possible, the cost of their construction. The Kristiania and Eidsvold Line, and later on the Kongsvinger Line were laid with the normal gauge (4.708 ft.). Subsequently, however, for a number of years, a narrower gauge (3.5 ft.) was employed even in lines which have afterwards become links in the trunk line system of the country. As, in addition to the narrow gauge, the whole fitting-up was of a plainer kind, it was found that the cost of construction of the narrow-gauge lines was considerably cheaper. At the same time, however, lines with a normal gauge were still constructed. This difference of gauge necessarily caused great inconvenience, especially in the main lines; and when once the division was introduced, it was

further developed by extension and connection with one group or the other. Owing to these circumstances, the gauge question in railway technics is the one that in this country has been most thoroughly examined into and discussed. The fight between the partisans of the different gauges has been carried on for a number of years. Of late, however, the normal gauge has won a decided victory over the narrow gauge. By employing about the same method of construction and material in both gauges, the difference in the cost of construction has proved to be considerably less than was originally supposed (now, on an average, only about 6 per cent). A lighter construction of normal gauge roads has to a certain extent been adopted, by which the expenses of construction of railways of this gauge too, can be very considerably reduced, as compared with the trunk lines of other countries, that are designed for great speed and heavy traffic. If the normal gauge is to be introduced on all the main lines of the country, reconstruction will be necessary with regard to several of them.

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

The working of the railways has not given any very favourable result from a purely financial point of view. The net surplus, from which the expenses of interest are defrayed, and sums are set aside for different funds, during the years in which the railways have been in existence, has not represented a large percentage of the capital invested. Since 1880 it has only rarely been as much as 2%. In the traffic year 1898—99, however, it went up to 2.9%. Scarcely 1% has been distributed as dividend to the shareholders. It is only the Kristiania and Eidsvold Line that gives its shareholders a fair dividend. Of the other lines, some yield a relatively small percentage, while others give no dividend at all.

The capital invested in railways amounted in the above-mentioned traffic year, for all the government railways, to about kr. 146,000,000, and for the private railways to about kr. 16,000,000, giving a total for all railways of about 162 million kr. New undertakings have been decided upon for about kr. 70,000,000, and it may be assumed that the necessary reconstruction will raise the working capital for the railways laid and decided upon in Norway, to 250 million kroner.

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

CANALS.

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

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

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

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

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



View from Vrangfos.

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

tion, is unique of its kind. The dam at Vrangfos, which has a height of 121 ft., raises the level of the water 75 ft., and the waterfall thus produced is something really worth seeing. The construction of the canal presented many very great difficulties.

COAST TRAFFIC.

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

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

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



Nordland Boat.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

cubic feet) of hold corresponds to 1 ton (2,240 lbs.), which is rather less than the average stowage of steamers sailing to and from foreign countries in 1897 (1.2 ton). The amount of goods conveyed in home coast-traffic would thus amount to 10.3 million tons (95 per cent of this by steamer).

If we compare this figure with the transport of goods by rail for the same period, 2.2 million tons, we see that the total home transport has been more than twice as large as in transactions with foreign countries (5.5 million tons), and that in the home traffic, transport by steam and sailing vessels has been more than 4 times as great as by rail*). If we also consider that the average distance of transport in the coast-traffic is considerably greater than by rail (41 miles in 1897—98), as, according to the figures for 1885, only 39 per cent of the tonnage (vessels without certificate of nationality) was engaged in voyages within one county, we shall see how far more important the transport by sea is than that by rail in the home trade in the coast country of Norway. Hardly any other country, except possibly Greece, can present anything similar. In comparing it with other countries with respect to means of communication, where the railway is the standard of measurement, this circumstance must be taken into account. In 1885, the coast-traffic in Norway was reckoned to be 3½ times as large as that in Denmark, and more than double that in Germany.

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

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

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

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

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

On many routes the passenger and goods traffic alone would not pay. A considerable addition to the profits, however, is made by the payment made by government for the regular conveyance of mails along the coast districts. In the present budget this is put down at kr. 1,205,000. In order to improve the communication with certain out-of-the-way fjords and islands where there is little traffic, the government furthermore contributes directly to the support of private steamboat companies — at the present time, about kr. 800,000. In this connection it may be mentioned that the government also supports

two or three steamboat lines to foreign ports, particularly to obtain rapid postal communication, e.g. Kristiansand and Fredrikshavn, Jutland (daily), and Bergen and Newcastle (3 times a week). The intention of encouraging export has of course something to do with this also, and is the only object of the third government-supported route — from the north and west of Norway to the Mediterranean. At the present time, about half a million kroner is paid for the conveyance of mails, and the support of these three routes to foreign ports. The total government grant for steamboat communication thus amounts to almost 2½ million kroner, rather more than half of this being for the conveyance of mails.

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

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

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

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

BIBLIOGRAPHY.

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

POST, TELEGRAPH AND TELEPHONE

POSTAL SERVICE.

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

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

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

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

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

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

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

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

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

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

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

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

TELEGRAPH AND TELEPHONE SYSTEMS.

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

The management of the telegraph and telephone has always been a government monopoly, though in such a manner that within the boundaries of a municipality it was originally free. There was no law on this matter before 1881. While the working of the telegraph has always been undertaken by the government, that of the telephone, from the very first, was conceded to private enterprise. The development of circumstances gradually brought about a change in this, and in 1886, the first government line was laid, arranged exclusively for telephonic communication. It may now be considered a fixed principle that the government takes over the connecting lines between the various parts of the country, and between the towns; while the working of the local telephone may for the present be left to private enterprise, but in such a manner that the government reserves to itself the right of establishing or taking over local telephones to whatever extent may be deemed advisable in the interests of the public. In accordance with this, a new act appeared in 1899, giving the government the sole right of putting up telegraph and telephone lines, doing away with the former liberty to work a telephone within the boundaries of a municipality, and at the same time giving the government the

right of expropriation with regard to already completed private lines. The government has moreover already commenced the formation of a complete state telephone system, and during the last three years has voted successively, to telegraph and telephone lines, kr. 1,331,900, kr. 1,398,160 and kr. 1,425,500. Of these sums, the amounts devoted to unmixed telephone lines were kr. 966,300, kr. 869,860, and kr. 819,900. In the south and west of Norway, a connected state telephone system has already been completed: and according to a plan, worked out by the director of the telegraphic service, for the future extension of the telephone, there should be, in 1906, a fairly complete state telephone system over the whole country.

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

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

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

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

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

The revenue from the combined telegraph and telephone systems amounted in 1898 to kr. 1,945,735, which shows an increase on the preceding year of kr. 295,136. The expenses amounted to kr. 1,954,911.

The telegraph and telephone service is managed by a director, who is under the Public Works Department.

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

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

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

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

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

The value of the private telephone-lines at the close of 1898 may be put at about 7 million kroner. The number of telephone apparatuses in the same year, according to statistics published by the country telephone unions, was 25,376, the number of central

stations 505, the length of line 37,158 miles, the number of conversations 47,423,000, and the number of telegrams telephoned 179,301. The statistics, however, are incomplete, so that the actual figures will certainly be considerably higher.

BIBLIOGRAPHY.

Norges officielle Statistik.

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

F. BUGGE. *Den norske Statstelegrafs Grundlæggelse og Vækst.* Kristiania 1890.
Indstilling fra Komiteen til Udarbeidelse af en almindelig Plan for det Offentliges Forhold ligeoverfor Telefonvæsenet. Kristiania 1894. (Sth. Forh. 1895, 2 D. b, No. 104).

LANGUAGE

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

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

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

These deeds and letters, although from a literary point of view without interest, are, so far as language is concerned, of the greatest importance — in the first place, on account of the information which they give us of the splitting up of our language into dialects. While the literature of the 13th century gives only faint indications of differences in the pronunciation and vocabulary used in different parts of the country, these differences appear much more plainly

in the 14th and 15th centuries. Although the dialect form is often obscured by vacillating and negligent spelling, and by efforts to establish a standard form for the whole country, it is possible, by the assistance of the present dialectical conditions, in many cases to fix the time when the divergence commenced. The present splitting up into dialects seems to have been fully developed as early as the year 1520 A.D. The chief movement of the development illustrates the old experience that language movements may, like epidemics, spread over conterminous regions. From ancient times, and in constantly increasing numbers, we find features common to the West Norwegian and Icelandic, to the East Norwegian and Swedish (especially northern Norwegian and northern Swedish) to the South Norwegian and Danish. In the second place, these deeds and papers give us reliable information about the foreign influence on our language. They show us that, although Swedish and Danish in the 14th century, at the court and in the circles of the nobility, were considered nobler languages than the vernacular (a Norwegian queen even had French rhymed romances translated into Swedish), still these languages as yet exerted but little influence on the speech of the people. More frequent traces of Swedish influence are found only in the following century, when, by the cloister literature of St. Bridget, an attempt was made at a standard Scandinavian language; but this artificial idiom did not obtain any lasting importance. The Hanseatic towns, as in Denmark and Sweden, assumed, in the Norwegian commerce of the 14th and 15th centuries, a dominant position with their chief seat in Bergen, at that time the largest town of the kingdom. But although their power here was not less than elsewhere in Scandinavia, they had not in Norway the same opportunity of permeating the whole country. While the Danish language during this period was leavened with Low-German words, Norwegian documents show only a few examples of borrowed words. Those words which our country dialects have borrowed from Low German, have mostly slipped in at a later time and through other channels, partly through the direct commerce of the Norwegians with northern Germany, partly through the intermediary of the Danish language. Thus it may be said that the Norwegian popular language up to the 15th century, taken as a whole, had maintained itself free from foreign influence. Not even during the first period of the union of Kalmar during the reign of Queen Margaret, can we notice any tendency to neglect

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

3. From the time of the Reformation (i.e. from about 1530 A. D.) there is no longer found in written documents any form of language that can properly be called Norwegian. Simultaneously with the strengthening of the written language in Denmark by the translation of the Bible in 1550 A. D., and while the Swedes were re-establishing their language on the basis of the Upper Swedish country dialects, and even the Icelanders, who were amenable to the Danish government, were commencing to print books in their own tongue, in Norway the foreign tongue had its position strengthened by the introduction of the Danish translation of the Bible, which, as regards religious terminology, also exerted a certain influence on the speech of the country population. And when at the same time (in 1536 A. D.) Norway was forced into a close union with Denmark, then Danish was for ever established as the official language of the country. When, in the second half of the 16th century, Norwegians again appeared in the literature, there was no longer any spoken or written standard of Norwegian national language. The official circles and the immigrated nobility spoke Danish, which was also the written language of all educated Norwegians, and probably also the spoken language of educated people in the towns, though, especially as regards pronunciation, in a somewhat modified form. Thus even the necessary elements for the formation of a Norwegian book-language were wanting, and thus it happened that the Norwegian literature which now commenced to appear, and which to a large extent was produced by the re-awakened interest in the Saga period (a remote after-effect of the European renaissance), came to consist chiefly of Danish translations of the old Sagas and laws. For, although the understanding of the old Norwegian language had not quite died out, Danish had now come to be far more easily understood by the common people than the old language. In the writings which from this time appeared in our country, the language is distin-

guished from the Danish only by occasional words and expressions borrowed from the Norwegian speech. Such words and expressions are found particularly in books which deal with Norwegian nature and popular life, being especially the names of plants and animals. Special Norwegian peculiarities of syntax are also met with, for instance, in the books of PETER DASS, some peculiarities of the dialects used in northern Norway. Even the first prose writer of the Dano-Norwegian literature, HOLBERG, a native of Norway, often sins against the Danish language by using Norwegianisms; but most writers endeavoured to write as pure a Danish as possible. This condition of things lasted until the separation of Norway from Denmark (1814).

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

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

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

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

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

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

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

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

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

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

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

If we compare the new Norwegian language with the mother-tongue, we shall be able to make the observation, that although it has been under its influence the whole time, it has in many cases retained old peculiarities which the mother-tongue has afterwards given up. As far as our pronunciation is concerned, it agrees, as mentioned above, in all essential respects with the popular tongue in contra-distinction to Danish. The hard consonants contribute greatly towards giving our speech a harder sound than the Danish with its modified sounds. Our accent is more like the Swedish than the Danish; one characteristic feature is the rising accent which often makes a foreigner believe our statements to be queries. Our speech is less melodious than the Swedish; the song element does not play so prominent a part. The inflection is being continuously Norwegianised, especially the formation of the plural; we have thousands of separate Norwegian words and phrases. One characteristic feature of our language is the numerous double forms, of which one, being Danish in its sound, especially belongs to the literary style and the more select language, and regularly has a more abstract signification, while the other, being Norwegian in its form, belongs to the every-day speech. The word-formation is most closely related to Danish, although several derivatives have

been adopted from the popular language. The Dano-Norwegian syntax shows many points of similarity with the genuine Norwegian one, and the same is the case with the order of the words in the sentence. The Norwegian form of the language as written, very often lacks the grace and trimness of the Danish, the easy jest, the fine irony, the periphrastic designation. Conversationalists and artists in letter-writing are rare with us. Simplicity and strength are the qualities that we value the most. The simple architecture of the phrase is the one which comes most easy to us. The influence of the scanty and concise Saga style is noticeable from the days of PEDER CLAUSSEN (1545—1614) down to BJØRNSON. Even to the tenderest emotions we prefer to give a virile expression. There is in the voices of our best poets a strength and a ring which may sometimes become declamatory.

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

8. While the traces of the period of weakness which Norway underwent during her 400 years of union with Denmark, have, in the course of the century, been almost effaced, we have in our regular written language a lasting reminder of the price a country has to pay for the loss of its independence. By the introduction of Danish, a wall of separation was erected between town and country, from which our political life has not been the least sufferer. But even this wall is going to fall. Every day a conscious and unconscious approximation is going on between the imported language and the native one. While the dialects are being influenced through books and schools, and the «Landsmaal» is every day adopting Dano-Norwegian words and phrases, other channels are leading the treasures of the popular language into the Dano-Norwegian. The dialects have come to be the eternal and inexhaustible fountain-head from which Norwegian writing and

speech draw rejuvenescence and power of growth. The final result of this mutual influence will, we hope, be a uniform literary language with a genuine Norwegian tone. And, as is well known, we have examples showing that even in the field of language, the crossing may be something to be desired.

BIBLIOGRAPHY.

- IVAR AASEN. *Norsk Grammatik. Omarbeidet Udg. af «Det norske Folkesprogs Grammatik»*. Kristiania 1864.
- *Norsk Ordbog med dansk Forklaring. Omarbeidet Udg. af «Ordbog over det norske Folkesprog»*. Kristiania 1893.
- HJALMAR FALK og ALF TORP. *Dansk-norskens syntax i historisk fremstilling*. Kristiania 1900.
- JOHAN FRITZNER. *Ordbog over det gamle norske Sprog. Omarbeidet Udg. B. 1—3*. Kristiania 1886—96.
- P. GROTH. *A Danish and Dano-Norwegian Grammar*. Boston 1894; Kristiania 1895.
- K. KNUDSEN. *Unorsk og norsk eller fremmedords avløsning*. Kristiania 1879—81.
- AMUND LARSEN. *Oversigt over de norske bygdemål*. Kristiania 1897.
- JAKOB LØKKE. *Modersmaalets Grammatik til Skolebrug*. Kristiania 1865.
- ADOLF NOREEN. *Geschichte der nordischen Sprachen* (Grundriss der germanischen Philologie, hg. v. H. Paul, 2 Aufl. B. 1). Strassburg 1898.
- J. C. POESTION. *Lehrbuch der norwegischen Sprache*. Wien [1890].
- HANS ROSS. *Norsk Ordbog*. Kristiania 1889—95.
- JOHAN STORM. *Det nynorske Landsmaal*. Kjøbenhavn 1888.
- ALF TORP og HJALMAR FALK. *Dansk-norskens Lydhistorie*. Kristiania 1898.

LITERATURE

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

heathen mythology of the nation, the Ase faith, in imperishable metrical form. Fixed in heroic stanzas, the changing events of the age also found a sure way, through the bewildering oral traditions, down to a generation who had learnt the art of writing in the monks' schools.

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

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

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

to hold its own in the political union which, on account of dynastic complications, united Norway with Denmark from the conclusion of the 14th century, after the visitations of the plague. The Norwegian intellectual life sank into a heavy torpor.

The result of the union with Denmark and the Hanseatic mercantile power was that the upper classes gradually acquired a Danish and north German stamp of culture. When the Lutheran reformation, by dictation from Denmark, had been accomplished, and the church become a government institution, the more remunerative ecclesiastical appointments were generally filled with men who had received their theological training at the new Danish university. The language of the church, and the official language on the whole became Danish; and Danish was the Bible that Lutheranism gave to the people. Only as the language of the law did the national idiom for a time hold out against the intruding sister-language. The political unity was not able to touch the ancient form of law, which not even Roman law had been allowed to set its stamp upon. The wording adopted at the codification of the transmitted laws at the close of the 13th century, must certainly have sounded rather antiquated; but at any rate it obliged the judges to keep up their acquaintance with the language of the vanished golden age. At last, however, it became necessary to translate the Old Norwegian law-book into Danish, and a Danish revision of the code was also printed in 1604. At the same time, the lower classes obtained the appointment, by the authorities, of regular writers (*sorenskrivere*) to assist the jury-courts; within a generation, even the jurisdiction was placed in the hands of these legal writers, who even when they were not of Danish birth, wrote nothing but Danish. The appointment of authorised attorneys in all judicial proceedings completed the victory of Danish as the legal language.

In the mean time, the study of the Old Norwegian law-writings had saved the knowledge of the national literary language down to a time when humane studies made their way into the country with the Lutheran doctors from Copenhagen, Rostock and Wittenberg universities. Some codices of the royal sagas were found still in preservation, and soon became the subject of study and translation. Their account of the national power of past ages inspired the first attempt at a literature in the new language. Efforts to produce topographical descriptions and local chronicles

went hand in hand with the study of the code of laws and the sagas. In the year 1600, these efforts attained a synoptic clearness in the energetic writings of the autodidactic clergyman, PEDER CLAUSSØN FREIS. About twenty years after his death, his minute and entertaining «Norges beskrivelse» (Description of Norway) and his translation of Snorre were printed (in Copenhagen; the art of printing was not introduced into Norway until 1644). This saga opened the eyes of the Norwegian people to what they had once been, and, together with the continual, if not perhaps brilliant, victories of the new national army in the skirmishes with Sweden, the flourishing state of the timber-trade, and the increasing prosperity, helped once more to awaken and strengthen the Norwegians' national feeling.

All through the 17th century, there was steady, although slow, progress. The immigrated official and patrician families ceased to feel themselves foreigners, and became assimilated, in spite of the continual addition of new-comers, with the national elements of the two classes. At the close of the century, the country produced its first original poet, PETER DASS (died 1708). In complete emancipation from the pseudo-classicism of the age, this genial national poet wrote his «Nordlands trompet» in lively anapæsts with tuneful rhyme, in glorification of the scenery and life in his beloved native region. For the instruction of his congregation, he turned the catechism and Bible history into verse adapted to singing, in plain and simple language. Becoming widespread by innumerable copies (after his death, numerous editions of them were printed) this vocal store gained, by its genuine, popular tone, an immense popularity all over the country, and long retained it. This clergyman, whose personage lent itself so well to the formation of legends, and his younger contemporary, the gay and victorious admiral Tordenskjold, became the popular heroes.

It may be said that with Petter Dass, the hitherto anonymous *popular poetry*, though still long unnoticed by the educated, suddenly appeared in the full light of day. Right on into the century just ending, unwritten *ballads* have been preserved upon the tongues of the peasants, their epic subject-matter being sometimes traceable to the distant Edda period. The songs about the holy king, St. Olav, are also quite mediæval, as well as a number of magic and fairy songs. There are also from the same time a

number of songs, originally dance songs, about heroic exploits, chivalrous expeditions, love and treachery. For the entertainment of the guests at the peasants' drinking-parties, drinking-songs were sung about mighty feats, or the animals and birds of the forest, as well as the characteristic «stev», or half improvised alternate singing. In prose form, there existed an abundance of *legends* about the most remarkable occurrences and personages of the past or of the mythic world of superstition. More perfect in a literary sense are the numerous stories, which, besides the Indo-European world — of course entirely localised — of fairy-tale, also treats of a host of home types, — Askelad, Tyrihans, Veslefrik, etc. The Norwegian fairy-tales rank very high on account of their firm composition, their dramatic diction, their frequently racy, scurrilous humour, and their bold emphasis of expression. They stand perhaps higher than the lyric poetry, leaving out of account the musical worth of the national melodies. By great good fortune, this rich store of popular literature, whose vehicle was of course the language of the peasant, descended from the Old Norwegian, remained undiscovered until a time so late, that the national regeneration of the people had been accomplished, and the romantic understanding of the value of such tradition prevailed.

While Petter Dass, in his parsonage in the far north, was writing his popular verses, a young Bergen doctor was wandering about the old civilised countries of Europe, drinking in with heart and soul the first breaths that notified the coming change in the intellectual weather at the beginning of the new century. The doctor was the son of a Norwegian colonel of peasant birth, and his name was LUDVIG HOLBERG. He felt no call to be either parish priest or schoolmaster. The dawning genius's thirst for adventure drove him, in spite of his poverty, to take long journeys, to Amsterdam, to Oxford, to Leipzig and to Halle (1704—9). Montaigne and Bayle, Locke and Newton, Spinoza and Leibnitz, Grotius, Pufendorf and Thomasius, are the mile-stones along his route. This led him far beyond the narrow horizon of the Danish university, where his fellow-students still spent their time in Latin disputes about all kinds of scholastic trivialities. Steady and sedate in character as was this eager young seeker after knowledge, he drew back a little timidly from the daring theories of Newton, Spinoza and Leibnitz; and with his strong common sense, his mind paused half-way, before it had followed the deists in breaking

down the chief barriers of church doctrine. But he acknowledged the necessity of bold criticism; and Addison and Swift were writers after his own mind. At the age of 25, he was once more in Copenhagen, filled with a desire to brighten a little the quiet world at home. By some treatises in the style of Pufendorf, he gained a footing at the university, and by the aid of a scholarship was enabled to go to Paris, and even to Rome. Here the quiet book-worm chanced upon the modern descendants of his favourites, Plautus and Terence—Molière and the *commedia dell'arte*. When he was once more at home, and had to teach scholastic metaphysics, the situation became too ironical for the modern man; by a chance academical polemic, he discovered his slumbering talent for satire; and with explosive force, his gay Norwegian nature suddenly burst forth. One day in the year 1719, «Peder Paars» flew abroad over sedate Copenhagen, producing an outburst of laughter and displeasure by its merry Alexandrines, and their gay travesties of everthing and everybody.

It was the birth of the modern Dano-Norwegian muse, who came into the world with a smile upon her lips.

A year or two later, the first Danish theatre was opened in Denmark's capital; and in the six years during which this stage managed to sustain itself in spite of the indifference of the court, and the partiality of the common people for German farces, it succeeded in representing no less than twenty of our professor's original comedies. Having once begun, he threw off picture after picture of the follies of the time, each more mirthful than the other. To this very day these pieces are acted amid general acclamation, so vividly do they conjure up the society of those days, with all the comicalities of the rococo age, glaringly illuminated by the earnest gaiety of a far-seeing observer. A bundle of new plays lay completed when the failure of the theatre, and shortly after the triumph of pietism at the court, put a sudden stop to the prolific genius's opportunity of making use of the stage.

One would imagine that such a blow as this would paralyse the productive impulse of so pronounced a genius. But Holberg did not despond. He remained true to his beloved calling of teacher of the people, but had to turn his talent to neutral territory. In the mean time he had changed his subject at the university, and now held a historical chair; and, as he felt no

inclination for special research, he devoted himself to coining out of his rich store of knowledge, a series of popular books, principally from the history of the Dano-Norwegian monarchy. These truly popular books taught the Danish and Norwegian public to read; the sale was so brisk that it brought the author in a fortune. Holberg's lively prose created a rich and ingenious literary language out of the hitherto uncultivated Danish tongue. This too, was his fully conscious aim; he wrote in order to «polish the language».

But he also had an ethical object always in view. It was the desire of his heart to inculcate his own tolerant views of life, his own healthy common sense, upon the callous age in which he lived. He published volume after volume of essays and articles, in all not less than five hundred, upon all manner of subjects, which, with his jesting tone, he can make attractive to every sensible person. The former master in the art of dramatic dialogue, reveals himself as a brilliant conversationalist. In his advancing years, he seized, with the enjoyment of youth, the opportunity afforded by the decline of pietism at the court, to resume his long neglected dramatic authorship; but his figure-forming fancy had grown stiff, and the public taste had changed. From time to time he had whetted his ever active wit in pithy epigrams in Latin. In Latin too, — anything else he did not venture on, and moreover, it was aimed beyond the limits of his country — he wrote the principal work of his mature manhood, «*Iter subterraneum Nicolai Klimii*» (1741), a caustic satire upon the entire political and social, religious and moral condition of the Europe of that time, a work which places him on an equality with Swift and Voltaire.

Holberg's private life was that of a quiet, reserved bachelor. His health was weak. His favourite intercourse was with the literature of the period; and among modern authors, he held Montesquieu in highest esteem. He died as he had lived, in loneliness, in his 70th year (1754). But from his solitude this stay-at-home had revolutionised the whole of the little world that shared his language. Childless though he died, he had become the intellectual father of all his posterity. Ludvig Holberg incorporated Denmark and Norway with contemporary Europe, and left to the «twin nations», as an imperishable inheritance, a modern literature, a modern stage, and a modern prose.

The fact that Holberg was a Norwegian, was not the least important of the circumstances that throughout the century aroused the people of Norway to a clear consciousness of their nationality's full citizenship in the world. The latter half of the 18th century opened an ever-widening chasm between the Danish and Norwegian talents that succeeded Holberg. Through the half-German court, and the encouragement it gave to the German bard, Klopstock, who had been summoned to Copenhagen, the nationality of the Danish literature was for some time seriously menaced. At the same time the Norwegians, notwithstanding the community of written language and university, were undergoing a healthy development in the direction of national separatism. The desire for independence was concentrated in the demand for a separate Norwegian university. This did not arise merely from a desire to feel that their sons had been educated on native soil, but also from a germinating Norwegian science, which felt itself justified in gathering about a national seat of learning. For a time the nation had to content itself with a «*Videnskabernes Selskab*» (Literary and Philosophical Society) in Trondhjem (1760), presided over by the naturalist, Bishop GUNNERUS, and SCHØNING, the historian. Among Norwegian-born men of science in Denmark, the names of the botanist, MARTIN VAHL, and the mathematician CASPAR WESSEL, should be recorded. In belles-lettres, TULLIN, the young drawing-room poet in Kristiania, gained great renown, both in Norway and Denmark, by his lyrics formed on the pattern of the modern English lyrical poetry. It was a Norwegian, N. K. BREDAL, who, two or three years after Holberg's death, revived the Copenhagen taste for a Danish stage; and his example induced another young Norwegian, JOHAN NORDAL BRUN, to write tragedies in the bombastic style of the period. The subject of one of these was taken from the Norwegian saga age, and by the defiant tone it adopted towards the Danish, aroused the first public controversy between the young spokesmen of the two sister nationalities (1772). In the heat of the battle, Brun sang his afterwards so famous national song, «*For Norge, kjæmpers fødeland*» (For Norway, the birth-land of warriors), which, however, he did not venture to print. The silly bombast that flooded Bredal's stage awakened in a third young Norwegian the desire to protest in the name of good taste. This was JOHAN HERMAN WESSEL, whose immortal travesty, «*Kjærlighed uden strømper*» (Love without Stockings), drowned

the whole of the hollow theatrical system in laughter. The witty improvisator had soon gathered about him all the Norwegian youth in Copenhagen; and their «*Norwegian Company*», like its contemporary, «the Gustavians», in Sweden, cultivated French esprit and English natural lyric, but excommunicated everything German, even the young German poetry.

The result of this prejudice was that the radiant rejuvenescence of Danish poetry at the dawn of the new century, left Norwegian talent untouched. It is true the pioneer of Romanticism in Denmark was also a young Norwegian, HENRIK STEFFENS by name; but he soon returned to his beloved Germany. And his countrymen, Wessel's friends, had gone home to Norway to take up their various civil callings.

The 19th century opened upon a Norway of literary independence, albeit this independence manifested itself, for the present, in a poor epigone literature. Napoleon's war cut off all intercourse between the divided «twin kingdoms»; and Norway had to have an independent administration, and, in 1811, her own university. One day the nation awoke to find itself loosed from its 400 years' connection with the sister nation. Instantly a democratic constitution was created (17th May, 1814), the Swedes' attempts at subjugation were rejected, and the result was a pure and simple personal union, and fellowship in war. The political emancipation was accompanied by a regeneration of the religious life among the people, in a revival that was led by the peasant-apostle, HANS NIELSEN HAUGE.

In literary matters the old condition of affairs was maintained: the nation lived upon the traditions of the Norwegian Company. The people were impoverished, and the young state had more important claims to satisfy than the advancement of its intellectual life. In this way it came about that the young mathematical genius, NILS HENRIK ABEL, all through his life, had the greatest difficulties to contend with. In the two leading towns, the old trading town of Bergen, and the new capital, Kristiania, society provided for its own dramatic entertainment by private representations.

Not until a new generation had grown up under the sun of the new independence, did the literary revival take place; but then it came with unsuspected power.

In the parsonage at Eidsvold, the place not far from the capital where the May constitution was passed, a brother and

sister had grown up, whose names now shine as the radiant morning stars of the new golden age. At the age of twenty, the brother suddenly burst through the grey dawn of morning like a flaming meteor, whose rays were already extinguished, after a brief seventeen years of exuberant production, in a never-fading sea of light, when his more despondent sister, as a widow of the age of forty, threw back her veil, and revealed a literary physiognomy, whose radiance continued to shine in advanced age. These were Henrik Wergeland and his sister Camilla. And at the same time another young genius appeared as Wergeland's implacable rival, inheriting, after his death, the poet's crown. This was Johan Sebastian Welhaven.

Under this glittering constellation, poetry opened her eyes in regenerated Norway. It was in the years between Byron's and Goethe's death; but the new-born Norwegian muse was too bright and intrepid either to be infected with the passionate, torturing world-pains of the former, or to sink into the Olympian repose of the latter.

HENRIK WERGELAND rushed into life, intoxicated with ecstasy over its fullness, a youth more light of heart than the lightest-hearted, and yet of a deep and manly intellect, to whom existence revealed its seriousness and its claim to the devotion of the whole personality. A hopeless affection concentrated the feelings of this youth of eighteen upon a fertile point, and inspired a dithyrambic lyric, whose rich and splendid metaphors were a reflection of his fanatical enthusiasm for Shakespeare's poetic diction. Once emancipated, his imagination soared boldly up to the giddy heights of poetical cosmogony, whence his flashing intellect beheld life with all its strong contrasts transfigured as a radiation of the measureless love whose sparks smouldered in his own sensitive breast. At the age of twenty-two, after having taken his theological degree in 1829, he poured out, in the course of one month, the bursting fulness of his fiery soul in a gigantic improvisation covering 700 pages — «Skabelsen, Mennesket og Messias» (The Creation, Man, and the Messiah) — an epos of humanity, brought forth under intoxication in the dreams of liberty that at the time of the July Revolution, gave the enthusiastic spirits of the age wings to fly towards the gates of the millennium. But alas, how many comprehended the crowded allegory, whose bewildering profusion of images dazzled the sight like a host of sea-birds, startled from

their rocky nesting-places, and flying round in ceaseless circles with no dominant lines. And to a mind that shrank coldly from the ardent longings that throbbed in this unchecked tumult of rhythm, but grieved the more over every breach of approved taste in artistic expression — to such a mind, a shapeless production of ecstasy like this was only a monster in the world of poetry. Wergeland's fellow-poet and equal in age, Welhaven, gave expression to this narrow-minded view in a few fiery stanzas, concluding by according to the presumptuous poet «precedence among the bedlamites of Parnassus».

Out of the exchange of epigrams to which this attack gave rise, there soon ensued a regular battle all along the line between the partisans of the two irreconcilable views of life that had become personified in these two youthful poets. Echoes of the July Revolution reached to the distant shores of Norway, and the two political camps immediately engrossed the literary combatants. Wergeland was heart and soul a democrat. He glorified the struggle for liberty in dithyrambic poetic cycles, «Cæsaris» and »Spaniolen» (The Spaniard), lashed his adversaries with wild farces (under the pseudonym Siful Sifadda), blamed the authorities with tempestuous eloquence for their weak national feeling when it was a question of restraining the king's desire to limit the influence of the national assembly, and ardently incited his countrymen to free themselves entirely from the tradition that still maintained, through their civil servants, the old dependence on Danish culture. With a sense of his mission as standardbearer for the national and democratic rising, he even undertook the editorship of an organ — of hitherto bad reputation — of the extreme wing of the rising. At the same time he gave up, in the fulness of his heart, time, trouble and means, to practical plans for the instruction and moral improvement of the common people. He never dreamed of asking in return anything more than the love of the people; but that reward he reaped in abundance. Wergeland became the people's hero.

WELHAVEN felt his severe taste offended by the noisy national movement, and joined the bureaucrats — other aristocracy Norway does not possess — in their claim for an even, continuous development. Courageous and eager for battle as he was, he stepped forward and defied the wrath of the enthusiastic nationalists by a volume of teasing sonnets, «Norge's dæmring» (The Dawn of

Norway) (1834), which mercilessly laid bare all the incompleteness that was extolled as national culture. This pronounced æsthetic felt himself at home only in the intellectual life that was flourishing in Denmark. The struggle between the two chieftains and their followers culminated at last in a regular hand-to-hand fight in the newly-opened theatre, during the performance of a drama of Wergeland's (1838).

Wergeland was now 30 years of age, and by his political intrepidity, had closed the way to his appointment as clergyman. In spite of his republicanism, however, he had always been enthusiastic about King Carl Johan. The king was appreciative of this, and offered him as compensation for advancement denied, a small pension. The poet accepted on condition that in return he might edit a periodical, «For arbeidsklassen» (For the Working-classes). This step cost him the friendship of a number of misapprehending fellow-partisans; but he cheerfully continued his poetic labours. After marrying, and, not long after, being appointed keeper of the public records — in addition to all his other occupations, he also busied himself with historical investigations, principally as to the origin of the constitution —, the command of form that he had gradually acquired, came out in full perfection.

A prodigal fancy, soaring thought, and warmth of feeling, clothed in marvellously melodious verse, endows the brilliant lyric that ceaselessly flows from his pen, with a bewitching power that is only found in the most highly gifted genius. He mastered all the varieties of tone, the sublime hymn, the tempestuous dithyramb, the ringing song of liberty, the languishing love-song, the smiling idyl, the bold sea-song, and the simple nursery song. And out of this profusion of floral splendours, there arise the stately growths of his greater poems, such as, «Jan van Huysum's blomsterstykke» (Jan von Huysum's Flower-picture), «Svalen» (The Swallow), «Jøden» (The Jew), «Jødinden» (The Jewess), «Den engelske lods» (The English Pilot). The excited unrest of the youth had worked itself out into manly intensity and triumphant clearness.

But a chest-complaint now threw the strong man upon a bed of sickness, from which he was never again to rise. He lay there for a year; but instead of bemoaning his fate, he had his writing-board brought to him; he was filled with such an abundance of beautiful visions that he felt he dared not lose an hour. So splendidly did his brain work, that from his bed he sometimes kept

two printingpresses at work. As a farewell to life which was now passing away ere the cold breath of age had chilled his mind, he wrote down his recollections in the form of short, fresh, fragrant sketches. «Hasselnødder» (Hazel Nuts) was the name he gave to the little volume. He managed further to go through the great epic poem of his youth, and in transfigured form, he committed to posterity this ardent confession of faith — «Mennesket» (Man). A few more seraphic farewell hymns, and at the age of thirty-seven the poet closed his eyes, surrounded by a sorrowing nation.

Wergeland's poetry had quite thrown contemporary literature into the shade. In addition to Welhaven's well-formed, but still not self-dependent lyric, the only writings that deserve mention are MAURITZ HANSEN'S romantic novels. The newly-awakened national spirit, however, which had been incarnated in the great lyrical genius, was already in full activity in every direction in the generation that acquired its stamp from the year 1814. The painter, JOH. C. DAHL, and OLE BULL, the violonist, had already caused Norway's name to be heard far over the world. Gifted politicians now set enthusiastically to work to give form to the newly-created political life. It was here that the peasant, UELAND, and SCHWEIGAARD, the political economist and lawyer, met, each of them being chieftain in his own camp in the same generation (they both died in 1870). But historical investigation, and the study of the literature and language of the mediæval period of splendour, were of course most deeply inspired by the national regeneration. As early as 1839, a capital translation of Snorre's royal sagas was published, translated by the politician, JAKOB AALL, who also gave to the nation a classic account of the emancipation period in his «Erindringer» (Recollections) (1845). The scientific treatment of the sources of the saga-period's history, was taken up by two young philologists, RUDOLPH KEYSER and P. A. MUNCH, afterwards aided by their pupils, CARL UNGER, the philologist, and CHR. LANGE, the historian. Simultaneously with this revival of interest in the linguistic relics of the middle ages, the popular language descended from these was discovered to science by the autodidact peasant, IVAR AASEN. Munch and Unger's Old Norwegian grammar was published in 1847, Aasen's grammar and dictionary of dialects in 1848 and 1850 respectively.

The time was now ripe for the proper utilisation of the hitherto hidden treasures of national poetry. Their discovery is

due to the peasant-born theologian, JØRGEN MOE (died a bishop in 1881), and his friend P. CHR. ASBJØRNSEN (died 1885). Moe's little volume of national songs (1840), and still more the two friends' book of fairy-tales (1842—48), breathed such a fresh vital force into the romantic tendency that had hitherto suffered starvation on Norwegian soil, that they won the hearts of the whole nation.

This awakening, which occurred just at the time of Wergeland's death, had a very rejuvenating effect upon WELHAVEN'S poetry. Hitherto he had not only been pressed by his great rival, but had also been in bondage to the great German types (Schiller and Heine), and the Hegelian æstheticism expounded by the Dane, Heiberg. But now the huldre of fairy-tale held out to him a full-toned harp, and from it there flowed a number of wonderful romances, with a genuine Norwegian ring of language, and subjects taken straight from the national life. This productive period in Welhaven's life did not last very long, but by his both attractive and imperious personality, he continued up to an advanced age to act as the centre of the camp of the romanticists — the poets Jørgen Moe, P. A. JENSEN, ANDR. MUNCH, and THEOD. KJERULF. He was professor of philosophy when he died in 1873.

The style of the fairy-tale, however, led straight on to romance. Asbjørnsen was by nature a true realist. He was not content with the mere repetition of the words of the story, but also framed them in a description of the surroundings in which he had found them living upon the lips of the country people, producing freshly realistic pictures of peasant life.

To the same period belongs Wergeland's sister, CAMILLA COLLETT. At a mature age, and as the widow of one of her brother's literary opponents, she made her appearance with her society novel, «Amtmandens døtre» (The Prefect's Daughters) (1855). Besides being a rare masterpiece of literary art, this book acted as a war-cry. Fru Collett was the pioneer of the woman's question in Norway, and, with her brilliant style and bright intellect, continued until her death to bear the standard in front of the ever-growing army of her co-champions of the cause.

The wholly democratic side of realism attracted the practical sociologist, EILERT SUNDT, who published, in a series of remarkable writings, his careful investigations of life in the very lowest grades of society. At the same time, a personification of the

democratic spirit arose in the form of young JOHAN SVERDRUP, who became a master of Norwegian oratory when he entered public life at the head of a host of sons of the February revolution. It was the spirit of 1848 also, that in the early days of manhood, aroused the two poets who dominate the literature of the latter half of the century.

But what first of all carried them into art was the steadily increasing strength of the national current. In 1852, the first volume of P. A. Munch's full and exhaustive history of the Norwegian people, «Det norske folks historie», appeared. At the same time, there also appeared (in Denmark) translations of the Icelandic family sagas, whose fresh descriptions of passion and heroic deeds came as a delightful breath of air to the Norwegian mind, from the youthful days of its nationality. The desire to feel itself an independent nation, had, even in Wergeland's time, aimed at a rupture with Danish culture. The historians, Keyser and Munch, even maintained the theory that has proved to be untenable, that the original inhabitants of Norway entered the country from Finland, and not from Denmark. The repeaters of the fairy-tales separated the Norwegian prose from the Danish; and this had induced even the leader of the Dano-philes to tune his harp to the keynote of Norwegian speech. M. B. LANDSTAD, a clergyman, now revealed the wealth of poetical treasures that the country possessed, by the publication of his large collection of old national ballads (1853); and at the same time, LINDEMANN brought out several hundred national melodies. Already the stronghold of the Danish language in this country began to totter. In 1850, the world-renowned violonist, Ole Bull, encouraged his native town, Bergen, to found a national stage with Norwegian actors. The actors in the theatre in Kristiania were Danish; now the demand was made that there too, nothing should be suffered but the current Norwegian speech, in the main the same as that which the original philologist, KNUD KNUDSEN, had proved to be essentially different from Danish, though similar in its written form.

The leaders in the struggle for the Norwegian stage-language, were the two young poets, HENRIK IBSEN and BJØRNSTJERNE BJØRNSEN. Not only was Ibsen the manager of the Bergen national theatre for the first few years after its foundation, and Bjørnson, four years his junior, his successor, while at the same time striving to keep up a new Norwegian theatre in the capital, but they both

set to work to create for the young Norwegian actors an original Norwegian repertoire. Hitherto the luxuriant Danish literature had ruled the theatres, and what had been written on Norwegian soil for the stage, had been imitation. At last the saga style opened the ears of both poets to a true Norwegian ring in the speech, and the saga subjects filled their inward vision with forms whose essence was headstrong passion and bold exploit.

In the autumn of 1857 and the spring of 1858, Bjørnson published his two dramas, «Mellem slagene» (Between the Battles) and «Halte-Hulda» (Lame Hulda) and Ibsen his tragedy, «Hærmændene paa Helgeland» (The Vikings at Helgeland). And the victory was won for the Norwegian language on the Norwegian stage, all the more certainly from the fact that a number of clever young actors were standing ready to give theatrical life to Norwegian plays. Among the chief of these were JOHANNES BRUN and his wife LOUISE, SIGVARD GUNDERSEN and his wife LAURA, Frøken SOFIE PARELIUS, Fru LUCIE WOLF, and ANDREAS ISACHSEN.

Before we follow the two victorious young poets farther, it should be mentioned that simultaneously with their completion of the work begun by Asbjørnsen and Welhaven in the direction of the Norwegianising of the written language descended from the Danish, the country language, descended from the Old Norwegian, received its own literary form. After having laid the foundation of a scientific study of it, IVAR AASEN set to work to write it; and his poetry, like his prose, called forth wonder at its classic ring. In the autumn of 1858, another peasant-poet began to write in this «dialect». This was AASMUND VINJE (died 1870), a fellow-student of Ibsen and Bjørnson, a born lyric poet of Heine's type, and a brilliantly intellectual and versatile conversationalist. In his weekly paper, «Dølen», he threw himself into a whirling controversy about everything with everybody, investing his thoughts in the unpolished expressions and unconstrained tone of the dialect.

During the 40 years since Ibsen and Bjørnson, through the saga style, had begun to feel their power as dramatists, they have both continued with unflagging vigour to write for the stage. They still, for the time being, took their subject and formed their style from the sagas. Bjørnson's lyric trilogy «Sigurd Slembe» (1862), and Ibsen's character-tragedy, «Kongsemnerne» (The Pretenders) (1863), are the principal works of this dramatic renaissance.

Ibsen's nature is a severe, proud self-limitation. From the time he succeeded in drama, all other interests were put aside. Not only did he cease to occupy himself with painting, in which he might certainly have become more than a mere dilettante; but he also renounced his lyric Pegasus. One little volume of poems is all that he has published in addition to his long list of plays. And when, in 1864, at the age of 36, after a hard fight for appreciation and for pecuniary independence, he received government aid to go abroad, he went, and did not return to his country for 27 years. Before his departure, he had evinced a desire to tell his countrymen bitter truths from the stage. His witty, «Kjærlighedens Komædie» (The Comedy of Love) (1862), in rhymed verse, was considered by his generation to be too caustic to be borne. From distant Rome, he flung two fresh thunderbolts — also in rhymed verse — at the world at home. «Brand», in a voice of condemnation, «Peer Gynt», in wanton mockery, proclaimed the gloomy life-doctrine in which the study of his Danish predecessor, the philosopher Kierkegaard, had strengthened him — the claim of an unyielding idealism upon the individual to «be himself», and to «be it throughout, not piecemeal and divided». Satire had led him away from the heroes of the saga, into the unheroic present; but romance accompanied it, and compelled him to turn its words into verse. In course of time, however, he found that verse hampered him; and suddenly he was standing firmly on realism's ground. This occurred when he took upon himself to chastise the heroes of empty phrases in political discussion in the burlesque comedy, «De unges forbund» (The League of Youth) (1869).

Bjørnson was soon at his side in the domain of realism. His way thither had been by altogether different and very varied paths. With his indomitable desire for action, and his fiery eloquence, he had early made for himself a position of authority in the ranks of the liberals, who were advancing with Johan Sverdrup at their head. But he had not therefore forsaken poetry. Not only did he pour forth most beautiful lyric poems, that it was the ambition of musicians to set to music, but he had also employed the saga style with great success in modern epic prose; and simultaneously with the production of his first drama (autumn of 1857), his refreshing rustic romance, «Synnøve Solbakken», was published. And one after another, interspersed among his plays, came new romances — «Arne», «En glad gut» (A Happy Boy), «Fiskerjenten»

(The Fisher Maid), and «Brudeslaatten» (The Bridal March). These enchanting little pictures from life, and his charming songs, made Bjørnson's name dear to young readers all over the country. In his Danish predecessor, Grundtvig, Bjørnson had found the confirmation both of his bright Christian faith, and of his view of the peasant as the nucleus of the nation. He had gone abroad at an earlier age than Ibsen had done, but he did not remain there. Time after time, he too has lived for years together among strangers, but, as he himself has said, «only to bring home new warmth to Norway». He took from abroad the subject of a splendid drama on Mary Stuart. But home attracted him most, and at last he broke away from the hero world of history, and described the genesis of the home in the dramatic idyl entitled «De nygifte» (The Newly-Married Couple) (1865). For a time it looked as if the theatre would engross him entirely. Twice, with an interval of a few years, he was instructor of the young staff of actors that gave stage-life to his own and Ibsen's plays. It was not a little owing to his bold participation in public life that at the age of 40 he had worked himself out of romance. To be the people's teacher became the vocation of his manhood. And this he accomplished first of all by weaving the thoughts he wished to disseminate into realistic plays. He began in the spring of 1875, and in «En fallit» (A Bankrupt) proved himself to be a master in this style of drama.

With its first appearance, this play won high favour on the German stage also, and thus opened the way both for its author and for Ibsen to their gradual recognition as dramatic poets outside Scandinavia.

Ibsen too, as realist, appeared as a popular teacher. Even in his great historical play on the subject of Julian — «Keiser og Galilæer», 1873 — he is a preacher. The advent of a «third kingdom» is prophesied, in which the life-bearing fundamental truths of Christendom and heathendom shall revive one another. No such profound doctrine is preached in the satirical present-day drama, «Samfundets Støtter» (The Pillars of Society) (1877), whereby Ibsen obtained a firm footing in Germany.

But there is a difference in the character of the purposeful dramas that, after the middle of the seventies, issue in a twofold series from the pens of the twin poets. Ibsen is a pessimist and satirist, Bjørnson an optimist and reformer. Ibsen wishes to chas-

tise, Bjørnson to convert. Ibsen wishes to «harden souls», Bjørnson exhorts to «abide in truth». While Ibsen in his exile, obstinately refrained from raising his voice in the debates of the hour, Bjørnson continued to take part in the public exchange of opinion on all the serious questions that from time to time occupied the minds of his countrymen. In politics he was a fearless leader, and where his plume waved, the fight was thickest. When, at the end of the seventies, after a severe crisis, he broke with orthodoxy, it was the signal for a long religious contest.

But even around Ibsen's name, the battle has raged. The tendency of his satires has irritated sober minds. In «Et dukkehjem» (A Doll's House) (1879), the heroine, Nora, maintains the human rights of woman in marriage; and her stirring speeches aroused a sharp controversy all over Scandinavia. The public stood aghast at the revolting illustration of the doctrine of heredity in «Gengangere» (Ghosts) (1881). The construction of these two plays is masterly, and their interesting characters have tempted modern actors in all lands. Nora is one of the triumphs of theatrical stars, and «Gengangere» has served as an attraction to the independent theatres. In his indignation at the poor thanks he received for the grave moral of the last-named play, the author represented himself as «En folkefiende» (An Enemy of the People), who is left standing alone in his struggle to repair the flaws in society. The irony in this perpetual presentation of the ideal claims, he then portrays in the pessimistical allegory, «Vildanden» (The Wild Duck) (1884), and turns aside from writing with a direct purpose. Henceforth he occupies himself generally with deep psychological problems, wherein, with the wisdom of advancing years, he sees long vistas. This gives to his later pieces — «Rosmersholm», «Fruen fra havet» (The Lady from the Sea), «Hedda Gabler», «Bygmester Solness» (The Master Builder), «Lille Eyolf» (Little Eyolf), «John Gabriel Borkman», and «Naar vi døde vaagner» (When we Dead Awaken) (1886—99) — an often highly symbolical, twofold motive.

The productions of the last 20 years represent for Ibsen a steady perfecting of the original style upon which he has fashioned his dramatic form. By an ingenious arrangement of the substance of a human life, he is able in one exciting catastrophe, to unveil even the most secret recesses of its being, as it has developed through all the stages of life. This he succeeds in accomplishing

while keeping strictly to the dialogue form, without having recourse to situations that are outside the domain of plain reality, and without retarding the real action by digressions. This certainty in the planning of the outline of the play, is backed by an increasing dexterity in so forming the speeches, as to render them as perfect in epigrammatic conciseness as in pleasing naturalness. But the great attraction in Ibsen's plays is the severe consistency with which his serious intellect pursues the life-interpreting idea that inspired him. Ibsen's stage is always the stage of ideas.

As might be expected, Bjørnson has not swerved from his course as the warrior-poet and popular teacher. But so unerring are his psychological intuition and his deep poetical instinct, that the instructive pictures that his drama displays, nevertheless enchant the beholder with their genuine humanity. «En fallit» denounces the lax relations of the trade-spirit to truth. In «Kongen» (The King) (1877), the heredity of the monarchy is attacked, so to speak, from within, the humanity of the hero being represented as suffering under the institution he is compelled to represent. «Det nye system» (The New System) (1879) portrays the ruin that is worked by the sacrifice of individuality to the narrow-mindedness of relatives and to personal ambition. «En hanske» (A Gauntlet) (1883) requires the same purity in the bridegroom as in the bride. «Over ævne I» (Beyond Human Power, Pt. I) (1883) represents the deep human need of supernatural aid in the struggle with death and suffering, as an, in the end, hopeless longing, and will thereby undermine the belief in miracles. «Over ævne II» (1895) represents, as a parallel to this, the anarchistic fanaticism, even when wedded to a noble martyr spirit, as an equally fruitless attempt to eradicate popular despair. Both these masterly pieces of composition, however, notwithstanding all their open problem-debate, proved that they possessed a great power of impression from a purely artistic point of view, when they were acted in 1899 in the newly-opened National Theatre in Kristiania, where the poet's eldest son is manager. Like «Kongen», the tragedy of «Paul Lange and Tora Parsberg» (1898) is for the present excluded from the theatrical repertoire, as the subject is too closely connected with circumstances of a delicate nature, that are still fresh in men's minds. Both plays, however, through their wealth of genuine poetry, belong to the literature that can never become antiquated.

In looking back along this long double line of dramatic works, we also see the Norwegian theatre growing into an art-institution, with its own traditions and with a constant supply of high-class talent. In the foremost ranks of the company of actors who have carried Ibsen and Bjørnson's realistic repertoire on from victory to victory, may be mentioned ARNOLDUS REIMERS, HJALMAR HAMMER, FREDRIK GARMANN, BJØRN BJØENSON, SEVERIN ROALD, Fru JOHANNE REIMERS and her daughter, Fru JOHANNE DYBWAD, Frøken CONSTANCE BRUUN and Fru DIDI HEIBERG.

In addition to his plays — among them also being the merry comedy, «Geografi og kjærlighed» (Geography and Love) (1885) — Bjørnson has also, notwithstanding the active part he has taken in politics, succeeded in narrative in which, as elsewhere, he is faithful to his calling as teacher of the people. His novellettes, «Magnhild» (1877), «Støv» (Dust) (1882), «Mors hænder» (Mother's Hands) (1892) and «Absalons haar» (Absalom's Hair) (1894), and his longer novels, «Det flager i byen og paa havnen» (The Heritage of the Kurts) (1884) and «Paa Guds veie» (In God's Way) (1889), all prove his great talent as a sympathetic narrator and an intuitive discerner of souls. Every attempt at obtaining a perfect impression of Bjørnson's literary physiognomy would be in vain, without paying due attention to his innumerable contributions to the discussion of subjects of the day, both in speeches and newspaper articles. His style is extremely personal, broad and racy, fresh and to the point, but always elevated by warmth of feeling into the busy picture-world of a powerful imagination.

The awakening of realism in the sixties gradually called forth a fresh series of talented authors. Bjørnson's peasant romances had already found successors in Fru MAGDALENA THORESEN and the eloquent «landsmaal» author, KRISTOFER JANSON. The latter, however, soon devoted himself to the preaching of Unitarianism, and was for ten years a preacher among his countrymen in North America.

While this awakening exclusively, as far as Ibsen was concerned, and in Bjørnson's case, at any rate mainly, benefited the drama, it reached the field of romance through their contemporary in age and art, JONAS LIE, at about the same time. With his somewhat tardy début as an author in 1870, he at once won the Norwegian literary world by his delightful novel, «Den Frem-

synte» (The Visionary) and followed up his victory with a series of fresh, every-day descriptions, some from Nordland — «Tremasteren Fremtiden» (the Three-master Future) — some from sea-life — «Lodsen og hans hustru» (the Pilot and His Wife), «Rutland», «Gaa paa» (Go Ahead). The intuitive sense for the psychological which was apparent even here, attained its full development when he at length discovered the happy knack of converting into an artistic form the manifold experiences he had acquired before his début, by personal participation in the speculations of a promoter period, right up to the crash. In a long series of impressionistically life-like pictures, he paints his careful observations of the vital processes of family and society — «Livsslaven» (One of Life's Slaves) «Familjen paa Gilje» (the Gilje Family), «En malstrøm» (A Whirlpool), «Kommandørens døtre» (the Commodore's Daughters), «Et Samliv» (A Conjugal Union), «Maisa Jons», «Onde magter» (Evil Powers), «Niobe», «Naar sol gaar ned» (When the Sun Goes Down), «Dyre Rein» and «Faste Forland» (1883—99). Calmly and without delusion, he looks upon the ways of mankind; but in Jonas Lie we find, instead of the frigidity of contemporary naturalism, the intelligent sympathy of a warm nature, and the humour of a cheerful mind, that speaks to the heart. Emancipated by his strongly original imagination, this humour revels expansively in the fairy-tales published in two volumes under the title of «Troid» (1888—89). In these he reveals an abundant store of that poetry which elevates the mind to higher and freer spheres.

Clear and temperate sketches of every-day life constituted the themes also with which the somewhat younger ALEXANDER KIELLAND enriched our literature throughout the eighties. Here too, warm sympathy and cheerful humour dispelled the gray tinge that so often veils the representations of the destinies of average people. The great charm, however, of Kielland's description lies in the masterly way in which he handles his language, with the well-balanced *verve* of a man of the world. One after another, this author, whose maturity was evident from the very first, sent out a series of enchanting novellettes, and excellent novels — «Garmann og Worse», «Arbeidsfolk» (Work-people), «Else», «Skipper Worse», «Fortuna», «Gift» (Poison) are among the best. In the midst of this rapid production, however, the fêted novellist seems to have detected a falling-off in his fresh vigour; and to the

surprise of every one, he laid aside his pen with proud resignation, and retired to the life of a government officer in a provincial town (1891).

The early deceased KRISTIAN ELSTER (died 1881) belonged to the same generation. In two psychological novels, «Tora Trondal» and «Farlige folk» (Dangerous People), and a book of short stories, «Solskyer» (Sunny Clouds), he revealed a refined talent for describing the deeper moods and feelings. After a hard struggle to emancipate his personality and talent in the change of current that took place about 1870 in the young intellectual life of Scandinavia — it was Kristian Elster himself who introduced Turgenjev's novels in translations —, he joined the side that in the eighties was victorious. But although he considered his artistical mission to be that of a fighting pioneer, there is an under-current of poetic feeling traceable in his sketches, which, if he had lived to see the awakening in the nineties, would certainly have carried him beyond the domains of moralising fiction. Two more prolific authors of a nature akin to Elster's are KRISTIAN GLØERSEN and JOHN PAULSEN. Fru MARIE COLBAN (died 1884) also developed into a favourite novelist, though of an older school, after gaining great esteem during the second empire by her interesting and well-informed letters from Paris, where she had been a *protégée* of the princess Mathilde.

Fru AMALIE SKRAM on the other hand is a thoroughly naturalistic writer, lacking in sensitiveness and softening humour. A long series of her romances paint the anything but cheerful legends of several generations of «Hellemyr People» in forcible colours; while two others give affecting scenes from a lunatic asylum.

HANS JÆGER's writings are naturalistic in the extreme. His wholly undisguised pictures in «Fra Kristiania-bohêmen» (the Kristiania Bohême) in 1885, caused a tremendous stir by its direct inculcation of the principle of free love. When the law pounced upon the daring book, and its author had to pay the penalty of the law for his doctrines, a sharp contention ensued on the subject of the liberty of art. His novel «Syg kjærlighed» (Diseased Affection) was also suppressed for its inconsiderate unveiling of the closest relations between man and woman.

Of all the authors that came under the influence of naturalism, ARNE GARBORG has gone through the most peculiar personal development. With his deep necessity of experiencing every

idea, this strong mind has had to participate in the movements of the whole of the last generation; and every stage of his often painful mental struggle has left its impress in the highly original works that are the fruit of his unwearied productive energy. Sprung from the peasant-class, he found in Aasen's, Vinje's and Janson's «landsmaal» his most natural form of expression; but he has an equal command over the ordinary literary language, to which he often turns when addressing the entire public of Scandinavia in his essays and papers. Like Bjørnson, Garborg feels himself driven to throw himself with all his personal energy into debates on the grave questions of the day. As a young journalist, he had to take up a position in the free-thinking movement that spread rapidly all over Scandinavia, especially, perhaps, after the appearance of Dr. Georg Brandes in Denmark at the beginning of the seventies. Garborg manifests his break with orthodoxy in a religiously revolutionary novel — «Ein fritenkjar» (A Free-thinker). It was not until a few years later, however, that he made a name with his excellent novel, «Bondestudentar» (Peasant Students) (1882), which opened up from below, as it were, the comprehension of a new social element, that brigade in the academic army that originates from the peasant home. By his tribute to the inconsiderate naturalism — the novel «Mannfolk» (Men) — he came into warlike relations with the ruling caste in society, but retaliated sharply in the bitter play «De uforsonlige» (The Irreconcilables). He attempted descriptive naturalism in the detailed analysis of a joyless feminine life, — the story «Hjaa ho mor» (With Mother). He could not, however, deny expression to his personal inward life, and with his aphoristical self-diagnosis, «Trætte mænd» (Weary Men) (1891), he began the settlement with the objectively analytic tendency. His desire since then has been to effect a reconciliation with the belief of his childhood. In his splendid story, «Fred» (Peace), he first gives a striking description of the gloomy and melancholy pietism that had laid waste his father's home. He then describes the enlightening power of the true, self-sacrificing religion, in his powerful drama «Læraren» (The Lay-preacher) (1896); and ends with the glorious monologue «Den burtkomne faderen» (The Lost Father) (1899), where he depicts both intellectually and touchingly the victorious longing of a despairing doubter, for rest in a new faith in the all-wise Ruler of the world. Garborg has also shown his power of making correct verse in the

melodious «landsmaal», by his verse-cycle «Haugtussa» (Hill-folk) (1895), which is considered one of the pearls of Norwegian lyric art.

IVAR MORTENSON, the born lyric poet and dreamer, has contributed splendid «landsmaal» poetry in his two cycles «Paa ymse gjerdom» (In Different Ways) (1890) und «Or duldo» (Out of the Unknown). PER SIVLE also sings in «landsmaal» his songs in praise of national liberty. On the other hand, KRISTOFER RANDERS and THEODOR CASPARI have kept up the Welhaven tradition in lyric poetry. The former sings in praise of love, the latter in praise of nature, and both of them lash the «spirit of the age». As an epic poet in the style of the Finlander, Runeberg, J. B. BULL has attempted to depict episodes from the history of our nation's wars.

Side by side with Sivle and Bull, in the field of prose, the three «landsmaal» writers, JENS TVEDT, VETLE VISLIE and RASMUS LØLAND vie with one another as reliable painters of rustic life.

The drama has been, so to speak, monopolised by Ibsen and Bjørnson for themselves. Both Lie and Kielland have written plays, but without attaining the success worthy of their prestige as novellists; and Garborg's two powerful plays have hitherto been excluded from performance on the stage. GUNNAR HEIBERG, however, an energetic dramatist, still in his prime, has achieved real scenic triumphs. His bold choice of subject, and perhaps still more his bold rebellion against the ordinary dramatic technique, have, it is true, often caused the mass of the public to recoil before his imperious talent. «Kong Midas», «Kunstnere» (Artists), «Gerts have» (Gert's Garden), «Balkonen» (The Balcony), and «Det store Lod» (The Great Lottery Prize) (1888—1895) testify, each in its peculiar way, to the dramatist's clear knowledge of man's innermost being, and to his quickness to catch the under-tone in the various subjects, and to adopt his language to it. A cuttingly keen intelligence sparkles out everywhere, and a merciless comprehension of every detail that raises dissension among people with nerves. Of late years he has experimented with a revival of Aristophanic comedy, and has tried, in broad caricature, to pour a stream of laughter from the stage over such mighty social powers as the party-politicians — «Folkeraadet» (The National Assembly) and the press: «Harald Svans mor» (Harald Svan's Mother).

This rare master of style, who is also a first-rate writer of society articles in the daily press, stands, from an artistic point

of view, near the youngest literary generation that made its appearance in the last ten years of the century, and who, together with him, seem to be determining the tone of the new century's overture. The foremost of these was **KNUT HAMSUN**, an autodidact of peasant birth, whose strength lies in his power to dazzle with startling paradoxes, no less than with a sparkling *verve* in his style. One after another he brought even the most particular of his readers to his feet with his lyrically elevated descriptions of a strange mental life, in the stories «Sult» (Hunger), «Mysterier» and «Pan» (1890—94), in which the ego-centric passion and hallucinating mysticism vie with one another in dominating the spirit of the story. After one or two attempts at satire, he entered the theatre with a dramatic trilogy, of which the central link, «Livets spil» (The Play of Life) produced an extremely bizarre effect by the extravagant figure of the heroine, and the flickering changes of its moods. On the other hand, his latest book, «Victoria» reads like an adagio from beginning to end.

We also meet with a mystical spirit in the sombre stories both of the decadence psychologist, **ARNE DYBFEST** (died 1892), and the broadly epic writer, **THOMAS KRAG**. They have each created their own poetic prose. Thomas Krag has gradually won a place in the foremost ranks of the favourite authors of the public by his novel-cycle, «Mulm» (Gloom) and «Kobberslangen» (The Brazen Serpent), «Ada Wilde», «Ulf Ran», «Beates hus» and «Enken» (The Widow). — The mystical is a conspicuous element in **SIGBJØRN OBSTFELDER**'s quiet novellettes, «Liv» (Life), «Sletten» (The Plain) and «Korset» (The Cross); but the action here evaporates in the poetic fire that glows in the description. Obstfelder is a pronounced lyric poet; in melancholy musing he gazes into the quivering life of the soul, and sings his sudden visions in strangely rhythmical cadences. **NILS COLLETT VOGT**, on the other hand, possesses the jubilant gift of song; and his silvery clear verse swells with Hellenic joy in a rushing life. Vogt has also, in a story, shown himself to be touched by the undaunted naturalism that marks **THEODOR MADSEN**'s and **GABRIEL FINNE**'s (died 1899) descriptions of sad young life. **VILHELM KRAG** sings to his softly-tuned lyre white grief in melodious strophes. He has also, in a number of novels — «Hjemve» (Home-sickness), «Den glade løjtnant» (the Gay Lieutenant), «Rakel Strømme» — and a play — «Den sidste dag» (The Last Day) — affected a deep inquiry into rare

psychological phenomena. Novels of a somewhat similar nature were also written by Fru ANNA MUNCH, Frøken ALVILDE PRYDZ, BERNT LIE and PETER EGGE. The gently vibrating humour with which the last named has also drawn little pictures of the life of unimportant people, has appeared in HANS AANRUD in full maturity. This author's short and clearly drawn studies of the people of his native district, constitute a series of incomparable works; while his exuberant comedy, «Storken» (The Stork), denotes the entry of hearty laughter into our usually so solemn theatre. HANS KINCK, with more exciting and deeper fancy, but without that inborn assurance in his sensitiveness for style, has painted his richly-coloured pictures of the cultural awakening going on in remote country districts. His lyrical inspirations when describing the terror of the lonely waste, the outbreak of the devil in the human nature, the rush of longing, the intoxicating song of the summer air, no less than his undaunted courage in sounding the depths of disordered souls, have given him a prominent place among those young artists who will give its character to the first literary phase of the new century.

The stern epic writer TRYGGVE ANDERSEN occupies a special position in the large group whose most important representatives have already been briefly described. In his youthful lyrical writings he revealed indeed a closer relationship with the dominating tendency of the artistic views of this group; but in his great historical romance: «Fra Kancelliraadens dage» (From the Chancery Counsellor's Days) (1897) he also shows a natural disposition for objective description in plain narrative.

In concluding this short survey, we enter upon a field of literature which has nothing to do with passing moods and feelings, but consists either of a statement of facts, or of argumentative criticism. We may then remark that at the very beginning of the present generation, ERNST SÆRS, in his intellectual «Udsigt over det norske folks historie» (A Survey of the History of the Norwegian People) and JOH. P. WEISSE (died 1886) in his fascinating lives of the Roman Cæsars, began to apply an artistic treatment of accounts based upon detailed scientific research. The same course was followed by the literature and art historian, LORENTZ DIETRICHSON, by SOPHUS BUGGE in his original interpretation of the «Edda», by Wergeland's biographer, HÆRTVIG LASSEN (died 1897), by OLAF SKAVLAN (died 1891) in his commentaries on Holberg and Werge-

land, and by Welhaven's biographer, ARNE LØCHEN. A flexible prose has been the weapon with which the editors, CHRISTIAN FRIELE (died 1899), ERIK VULLUM and O. THOMMESSEN have attracted attention in the arena of politics. The painter CHRISTIAN KROHG has also won a name among contemporary prose writers as a piquant writer of society articles. The young art historians, ANDREAS AUBERT and JENS THUIS, and the literary critics, CHR. COLLIN, JUST BING, GERHARD GRAN, HJALMAR CHRISTENSEN, SIGURD BØDTKER, CARL NÆRUP and NILS KJÆR, naturally demand a wholly artistic form.

Among the scientific men whose prose reveals a marked feeling for a pure and correct handling of language, we may finally mention FRIDTJOF NANSEN, whose accounts of the two famous polar expeditions have justly become favourite books with all classes.

BIBLIOGRAPHY.

- PAUL BOTTEN-HANSEN. *La Norvège littéraire*. Kristiania 1868.
 EDMUND GOSSE. *Norwegian Literature* (in the *Encyclopædia Britannica*).
 HENRIK JÆGER. *Illustreret norsk literaturhistorie*. Vol. I—II. Kristiania 1892—1896.
 J. B. HALVORSEN. *Norsk Forfatter-Lexikon 1814—1880*. Vol. I—V. Kristiania 1883—1900.

The last mentioned work, as regards accuracy and exhaustiveness, is an unrivalled alphabetical record of modern Norwegian writers and their writings. By its author's deeply regretted death, the work has recently been interrupted before conclusion.

THE PRESS

JUST as Norway was the last European country but one, into which the art of printing found its way — Turkey alone being behind us in this respect — so the beginning of a printed periodical literature was much later in Norway than in most other countries. Here, as elsewhere, the newspapers had their forerunners, partly in the shape of pamphlets containing accounts of single remarkable events (battles, natural phenomena, etc.), or critical reflections upon such events, partly in the form of periodical writings of an instructive and moralising nature, such as the «Short Weekly Treatises on Various, and in Their Several Ways, Useful and Edifying Matters», published anonymously by Bishop FR. NANNESTAD (1760—61), and the «Monthly Treatises» appearing in 1762. The first newspaper proper, however, was the still-existing *Norske Intelligenz-Seddel*, which began to be published in Kristiania in 1763. It was originally published once a week in small quarto, and contained for the most part only advertisements; and it was altogether free from political or other tendencies. Not long after, Bergen and Trondhjem each had its own newspaper, namely *Efterretninger fra Adresse-Contoirtet i Bergen* (1765), and *Trondhjems Adresse-Contoirts Efterretninger* (1767), of about the same size and contents as the *Intelligenz-Seddel*. These newspapers had acquired from the government the sole right to all the advertisements in the diocese in which they were published, a monopoly which they held until 1864 and 1876 respectively. In 1780, Kristiansand also obtained its privileged newspaper entitled *Christiansandske Uge-Blade*. In addition to these papers, several weekly periodicals appeared during the succeeding period in Kristiania,

Bergen and Trondhjem; but they had more the character of reviews, and were for the most part of short duration.

Throughout the period of the union with Denmark, all political discussion was well-nigh impossible, on account of the censorship. By an edict of the 10th October, 1738, newspapers had already been subjected to a pre-censorship, and in Kristiania, the bishop was appointed as censor of all printed matter. The total alteration in these conditions brought about by the minister Struensee's famous ordinance in 1770, which did away with all censorship, was of only brief duration. No later than 1773, it was forbidden, by a new ordinance, to publish in the papers anything that referred to «the State, the government and public institutions»; and by other decrees towards the conclusion of the century, the freedom of the press was still further restricted.

The disturbed times at the beginning of the 19th century loosened in some measure the firmly-knitted bands that hindered the free development of the press, and gave occasion to the publication of such papers as N. WULFSBERG'S *Tiden* (1808—14) and *Budstikken* (1808—34, with a few interruptions), established by the poet E. DE FALSEN, and after his death edited by L. S. PLATOU and others, as the organ of the «Society for the Welfare of Norway». In this paper, which is of the greatest importance for a knowledge of Norwegian affairs in early and modern times, and in «*Tiden*», the events of the day, including political items, were mentioned and in a measure discussed.

It was not, however, until after the Norwegian people, by the constitution of 1814, had been given the opportunity of taking part in political life, and after entire freedom of the press was granted them by § 100 of the fundamental law, that the press was able to find the rich sphere which alone can ensure its vigorous development. The need for free discussion, however, did not assert itself very strongly at first, and was felt by only a small circle of men. In the time immediately following 1814, therefore, the dawning political interest found expression less in the establishment of new papers, than in the youthful zeal with which the questions of the day were discussed by those politically interested. Among the new papers dating from this time, however, must be mentioned *Den norske Rigstidende* (1815—82), which obtained the sole right to all public advertisements, and was on the whole an organ for the views of the government. It gradually, however,

lost all political significance, and became solely a paper for official notifications. The first organ with the programme, «free criticism», that the Norwegian press obtained was *Det norske Nationalblad* (1815—21). In this paper, the awakening consciousness of the peasant found expression partly in impetuous, often narrow-minded attacks on government servants, partly in loud praise of the peasant and his importance to the community.

The year 1819 marks an important point in the history of the Norwegian press, as, on the 1st January of that year, the first Norwegian daily paper, containing 4 small, double-columned quarto pages, first saw the light. This paper was the still-existing *Morgenbladet*, which has subsequently played such an important part in politics. It began its career as a paper for light literature and items of news, without any marked political shade, and made a special feature of its literary contents, which were for a time edited by the author, MAURITZ HANSEN. It was not until after the year 1831 that the paper became an organ for an oppositional, half democratic policy, the editorship being undertaken by ADOLF B. STABELL, a man who, from his extensive acquaintance with the conditions of the country, especially the financial conditions, and with his productive initiative, came to exert a great influence both as journalist and as active politician.

At the same time, the awakening general political interest began to have a practical issue. The Storthing elections of 1832 brought a surprisingly large number of peasants into the assembly at the cost of the government officials; and the attack on the latter's strong position from that time became continually more and more persistent. *Statsborgeren* (1831—37) was especially renowned for its want of consideration. It deserves mention from the fact that the poet, HENRIK WERGELAND, was for some time its editor, and wrote a number of articles in it.

In 1836, *Den Constitutionelle* (1836—47) was started as an organ of the so-called «intelligence party», and edited for the first few years by, among others, the eminent lawyer and politician, A. M. SCHWEIGAARD, and subsequently by the poet, A. MUNCH. This paper, around which were gathered the best forces of the bureaucratic intelligence party, among them the poet, J. S. WELHAVEN, and his adherents, indicates, by its competent treatment of the questions of the hour, and its multifarious contents, a great advance in the history of the Norwegian press. In politics it was

Conservative, and in the face of the frequently immature and narrow-minded patriotism of opposition papers, maintained the importance of a free intellectual association with the old sister-country, Denmark. While its chief opponent, «Morgenbladet», found its readers for the most part among the burger-class and the peasants of the East Country, «Den Constitutionelle» was circulated almost exclusively among the Civil Service. This field, however, was too confined to ensure the paper a long existence; and after a brilliant period of 5 or 6 years, it gradually drooped, and in 1847, was incorporated with «Den norske Rigstidende».

The Conservative party, however, were not long to be without an organ. No later than the following year, *Christiania-Posten* (1848—63) began to be published, with very much the same programme as «Den Constitutionelle». Most of its editors, however, were far removed from active politics, a fact which gave their journalistic work an academic character. By its detailed treatises, and enlightening accounts of the events of the day at home and abroad, the paper did indeed become a much-read newspaper in the capital and in the Civil Service; but its influence was never especially great. Added to this, its position was rendered very uncertain by the frequent change of editor, and the consequent changes in its political views. The best known of its editors is the original journalist, L. KR. DAA, who some years previously had edited the paper *Granskeren* (1840—43), in which he boldly and keenly advocated Liberal reforms according to the English type. As the editor of «Christiania-Posten», he was an especially zealous defender of the so-called «Scandinavianism», or the union of the nations of Scandinavia in defence against common enemies.

In 1855 the capital acquired a new political journal in *Aftenbladet* (1855—81), a continuation of a satirically humorous weekly paper, *Krydseren*, and at first edited by O. RICHTER and D. MEIDELL, and subsequently by the last-named, either alone or in union with others, among whom we would especially mention two names that are well known in the Norwegian press, namely, BJØRNSTJERNE BJØRNSEN and F. BÆTZMANN. What especially distinguished this new paper was its news of the day, local information, rapidity in the communication of intelligence from at home and abroad, and also the talented treatment of artistic and literary questions. During the first few years, it retained some-

thing of the freshness it had inherited from its satirical predecessor, while at the same time it enjoyed esteem for its urbanity and thoroughness in discussion. Politically, it was at first an advocate of the programme of the Reform party; but by degrees its want of a firm political attitude became more apparent, as the struggle between the governing powers became keener, until there became gradually less room for its mediatory interposition.

While «Morgenbladet's» Conservative rivals, «Den Constitutive» and «Christiania-Posten», did not succeed in winning a sufficiently large circle of readers to ensure their existence, *Morgenbladet* always came out of the battle stronger. During the long series of years in which Stabell was responsible for its editorship, he worked it up from an advertisement-paper and a neutral organ for contributors of all shades, to become the most widely circulated and influential newspaper in Norway. And the different political attitude which the paper gradually assumed in the fifties, far from impairing its influence, only strengthened its position. The rupture which at this time took place in the old opposition, and which led to the formation of a new political party with a more advanced democratic programme, forced «Morgenbladet» into a more and more Conservative policy, so that it was often on the side of the government. This was still more the case after CHR. FRIELE, in 1857, had succeeded Stabell as editor of the paper. With his sharp eye for the weaknesses in the phenomena and men in political life, and by his uncompromising, often personal criticism, he caused «Morgenbladet» to become a universally dreaded castigator. Through his connection with men in the most prominent positions, and by his fearless persistence, he raised his paper into the leading organ of the Conservative policy; and as such, it took up, in the seventies, an altogether dominant position in the journalistic world. The development of circumstances, and the triumphant progress of the Reform party, have made a change in this; but the paper has kept its place in the foremost ranks of Norwegian newspapers. Its editor, since Friele's resignation at the end of 1893, has been NILS VOGT.

Whereas the journals of the capital hitherto had been calculated for the upper classes, and were comparatively expensive, the two still-existing newspapers, *Aftenposten* (1860) and *Christiania Nyheds- og Avertissementsblad* (1861) were founded with an eye to the less wealthy part of the population. They were both at first

quite unpolitical, and this is still the case with the last-named paper, which can boast of a larger circulation than any other Norwegian paper. «Aftenposten», on the other hand, from the end of the sixties, began to take part in political discussion, and gradually worked itself up to a prominent position among the organs of Conservatism. At the same time, it paid special attention to the news column, and distinguished itself by its rapid reporting. Since 1879, its editor has been A. SCHIBSTED, who has succeeded in attaching a number of names of note to his paper, among them that of the already-mentioned F. BÆTZMANN.

The growing democratic movement and «Morgenbladet's» conversion into the organ of the government, was the means of calling forth at the conclusion of the sixties, two pronounced opposition papers, the still-existing *Verdens Gang* (1868) and *Dagbladet* (1869). The first-named paper began as the advocate of a narrow economy in the administration, but soon went over to take the side of the programme of the parliamentary opposition, and was even conducted for a time by the leader of the Opposition himself, JOHAN SVERDRUP. Since 1878, its editor has been O. THOMMESSEN, whose caustic pen, especially in times of political agitation, has an exceptional power of hitting his opponents through epigrammatically formed paragraphs. His paper has been the rendezvous of a number of prominent names in literature and art. BJØRNSTJERNE BJØRNSEN especially, has sent the greater part of his journalistic productions to this paper. «Verdens Gang» was before any of its competitors in procuring, by means of its own correspondents, copious telegraphic dispatches from abroad; and it was the first Norwegian daily paper to add illustrations, often by our best artists, to the accounts of passing events. The paper has been on the whole the spokesman for the policy of the Liberal party, which, in the years of sharp contest about 1880, it defended with great talent and boldness. It has, however, always maintained an independent attitude, and, especially of late, has attacked the leaders of its party.

Dagbladet began to be published in 1869, under the editorship of the well-known politician, H. E. BERNER, who, during the ten years in which he occupied the post of editor, succeeded in overcoming the manifold difficulties that a liberal opposition paper had to fight with in those days, in the capital. Among the most distinguished contributors may be named the authors, JONAS LIE

and ARNE GARBERG, and the journalists, F. BETZMANN and E. VULLUM. In spite of the frequent change of editor, the paper has always been a staunch defender of the policy of the Storting majority, and is actually considered to be the closest ally of the Government. It was conducted by L. HOLST from 1883 to 1898, and is at present edited by A. T. OMHOLT.

During the nineties, a number of smaller papers have been started in Kristiania, which have chiefly aimed at a greater cheapness than their older brethren. Of these we will mention the Conservative papers, *Ørebladet* (1891) and *Landsbladet* (1893, as a continuation of the older papers, «Fædrelandet» and «Almuevennen»), the Liberal *Eidsvold* (1894), and *Kristiania Dagsavis* (1897) without any settled political party-standpoint. *Social-Demokraten* (1884) and *Arbeideren* (1895) are organs for the special interests of the working-classes. *Den 17de Mai*, established in the beginning of 1894, is issued in «landsmaal», and is the organ of the «language-strugglers». It was first edited by ARNE GARBERG.

Simultaneously a rejuvenation took place of the venerable Nestor of the Norwegian press, the already-mentioned *Norske Intelligenssedler*, which had long been leading a languishing existence, dedicated almost exclusively to advertisements. When, in 1890, the editorship of the paper was undertaken by HJALMAR LØKEN, it took up arms, with all the freshness and dauntlessness of youth, in defence of political and social reforms, while it has distinguished itself by its independence and fairness in discussion.

The Norwegian *provincial press*, in its development, has followed to the best of its ability the impulse given by its pioneers in the capital. It must here be remembered, however, what great difficulties our country's provincial press has to contend with, on account of the small population of the towns, and the scattered population of the country. In former times, there were many papers that had scarcely 100 subscribers; and printer, salesman and editor were, and still are, in a few cases, united in one person. If the newspapers in the smaller Norwegian towns are very modest as regards their contents and get-up, their number, on the other hand, is considerable. In almost every Norwegian town there now appear, two or three times a week, at least two papers, organs of the two great political parties. Even the world's most northerly town, little Hammerfest, has its two papers, and there

are towns of 9 and 10 thousand inhabitants, where as many as 5 newspapers are published.

We here confine ourselves to giving a list of the chief existing organs among the provincial papers of the west, north, south and east parts of Norway respectively, with the year of their foundation and their political shade. In Bergen — *Bergens Aftenblad og Bergens Adressecontoirs Efterretninger* (1880 [1765]; Conserv.); *Bergens Tidende* (1868; Lib.). In Trondhjem — *Dagsposten* (1877; Lib.); *Trondhjems Adresseavis* (1767; Conserv.). In Kristiansand — *Christiansands Tidende* (1883; Conserv.); *Fædrelandsvennen* (1875; Lib.). In Hamar — *Hamar Stiftstidende* (1847; Conserv.); *Oplandenes Avis* (1872; Lib.).

Magazines have always led a miserable existence in Norway. There has been no lack of men with talent and energy, who have tried to start periodicals of a scientific or popularly scientific nature, but the attempt has seldom been crowned with lasting success. Magazines of miscellaneous contents, intended for the educated class of readers, have only in exceptional cases enjoyed a longer life-time than from 5 to 10 years. The state of affairs is naturally even worse in the case of the purely scientific periodicals and professional papers, and the State has frequently had to step in with its aid in order to ensure their existence. We give below the names of the most important periodicals of miscellaneous matter, that are now being published, some of them with illustrations: *Folkebladet*, *Folkevennen*, *For Kirke og Kultur*, *Kringsjaa*, and *Samtiden*.

In Norway the press has been more occupied with political discussion than in most other countries. This is a natural consequence of our historic development, especially in the latter half of the 19th century. Although events have exercised a subduing influence upon the tendency towards political discussion, much labour and space is still bestowed upon this section of the operations of the press, in some measure at the expense of others.

The endeavours, however, made by the Norwegian press to keep the public *au courant* with intellectual and material movements, are the more deserving of commendation from the fact that the economic conditions of the Norwegian press generally are very unfavourable. We venture to assert that it is scarcely possible to point to any land where newspapers and advertising are so cheap as here, while at the same time the circulation is

so small. English papers, such as the «Daily Chronicle» and «Standard», and French papers like the «Journal des Débats» and «Le Temps» cost about 4 times as much per annum as our most expensive papers, that have two editions a day; and even in comparison with our nearest neighbours, our papers are not a little cheaper. With regard to advertisements the case is the same. While the large foreign papers take as much as 4 kr. and upwards per brevier line, the highest advertisement price here is from 30 to 40 øre, i.e. $\frac{1}{10}$ of what is taken abroad. Lastly it must be considered that whereas papers abroad can reckon on a circulation of hundreds of thousands, the newspapers of this capital have only in exceptional cases more than about 15,000 subscribers, and the provincial papers not more than 5000.

From this it will easily be seen that it is not brilliant financial prospects that tempt Norwegian men — and of late women too — on to the path of journalism. Due appreciation will be paid to the unselfishness and rectitude which has characterised the Norwegian press, and — with very few exceptions — has kept it from speculating in the delight taken by the public in scandal. Those men, therefore, who have devoted themselves to journalism have done so from a desire to spread knowledge, or to carry on propagandas for their ideas. It is owing to their self-sacrificing work that there is now not a valley to be found into which, in addition to school-books and religious publications, a newspaper has not penetrated, which nourishes the national feeling of the people, and gives them a peep into the great world beyond.

Associations of journalists. The only society embracing all Norwegian journalists is «De norske Journalisters Pensions- og Hjælpeforening» (the Norwegian Journalists' Pension and Aid Society) (founded in 1897). The funds of the society at present amount to about 115,000 kroner. On the other hand, there are several special associations, of which the most important are «Den Conservative Presses Forening», »Venstres Presseforening», and «Kristiania Journalistklub» (consisting of Kristiania journalists, editors excepted). All these associations are affiliated with the «Bureau central des associations de presse».

Since 1896, the Storting has annually voted 2000 kr. for travelling studentships (2 of 1000 kr. each) to enable Norwegian journalists to visit foreign countries.

Legislation. The legal provisions that especially concern the press are § 100 of the fundamental law; the ordinance of the 27th September, 1799, which «determines and explains more fully the limits to the liberty of the press»; Cap. 25 of the penal law. «concerning crimes by printed writings and the like», compared with provisions in Cap. 8, 9, 10 and 17; law concerning copyright in literature and art of the 4th July, 1893.

Statistics. A few figures will give an idea of the development which the press has gone through in Norway in the course of this century.

Year	Political and Advertisement Papers	Popular Papers of Varied Contents	Reviews and Professional Periodicals	Total
1814	7		1	8
1832	17		3	20
1848	40	2	17	59
1865	62	14	30	106
1875	94	31	41	166
1885	133	38	91	262
1895	174	45	137	356
1900	196	88	145	429

According to the postal statistics, the total number of papers and periodicals dispatched regularly by the post in 1876, was 8,005,212; in 1885: 17,308,000; in 1895: 36,040,800; in 1898: 45,647,300.

The telegraphic press communications come chiefly through the «Norsk Telegraphbureau» (founded in 1867), which receives its foreign telegraphic matter through Ritzau's Bureau in Copenhagen.

BIBLIOGRAPHY.

- P. BOTTEN-HANSEN. *La Norvège littéraire.* Kristiania 1868.
 J. B. HALVORSEN. *Norsk Forfatter-Lexikon 1814—1880.* Kristiania 1885—1900.
Fortegnelse over tidender og tidsskrifter, der udkommer i Norge og kan bestilles paa norske postanstalter. (Yearly).

PAINTING

THE Norwegian school of painting is the youngest in Europe. It belongs to the 19th century, and has no true roots in earlier ages. There have, it is true, been painters of Norwegian nationality before that time, such as the peasant sculptor and painter, Magnus Berg (died 1739), and pictorial works of ancient date exist, which may be said with certainty or probability to have been executed in Norway. But these scattered, for the most part church, pictures from former times, are so few in number, and so varied in style, that it is impossible to form from them any conception of an independent Norwegian school of painting, or of artistic tradition in Norway.

It was only after the dissolution of the union with Denmark that in the domain of art also, the nation awoke to consciousness, and began to assert its independence, and in less than twenty years from that time, a little flock of painters might be named, who, in popular opinion, stood out clearly as a true Norwegian school of painting.

At that time there was no advanced school for artists in Norway, and for that matter, it may be said that there is still none, as a public special school for artists is a dream of the future, awaiting realisation. Nearly all the Norwegian painters, therefore, were obliged to go for their training to the art academy in Copenhagen; and circumstances also compelled them to work principally for a foreign public. But they painted their own country, and most of them kept up a fruitful connection with it by frequent journeys thither.

The founder and leader of this school of painting was himself a pronounced *Norwegian* artist-personality, and was keenly conscious of this.

No name is more deserving of prominence in an account of Norwegian art in the 19th century, than that of JOHAN CHRISTIAN DAHL (born in Bergen, 1788, died a professor in the Dresden academy in 1857). Dahl's years of apprenticeship fell during a period when a new view of nature was setting in in literature and art; and he himself became one of those who, in the struggle with the older, abstractly conventional, classic view of art, aided the triumph of a deeper and more personal conception of nature.

In 1811, Dahl became a student at the academy in Copenhagen, but his real teachers were the old Dutch landscape-painters in Danish galleries, especially Ruysdael and Everdingen. Under their influence, his eyes were also opened to the characteristic and, in an artistic sense, unutilised natural beauty of his native land.

In 1818, Dahl went to Dresden, where, after 1824, he continued to reside as a professor at the academy, until his death. It was not long before the fame, which his fertile and superior order of genius gained in Dresden, had spread far beyond the borders of Saxony. Dahl has often been called the creator of the romantic landscape. But in spite of his close relations with the group of Dresden romanticists, and more especially with the pronounced romantic landscape-painter, Friedrichs, the dreamy view of life, and visionary conception of art of the German romanticism was always foreign to Dahl's lively and positive temperament. Both as a man and as an artist, he was originally of a thoroughly healthy nature, a cheerful disposition that met reality with an undaunted gaze. In common with the German romanticists, Dahl had a contempt for a decayed academic tradition, and an enthusiastic confidence in the right and might of individualism in art; but in reality he was a wide-awake realist. There is more true genius in the stroke of his brush, than in that of any other Norwegian artist. There is a fulness and richness of observation, and a directness and force of conception in him, that is found in no other of his German or Norwegian contemporaries in art. Although he lived at a distance from his native land, he never ceased to glorify its picturesque beauty. Again and again he returned in the summer to Norway, and took thence with him a rich harvest of studies and impressions, which he afterwards turned into a stately series of Norwegian landscapes.

At the same time Dahl was also producing a number of pictures and studies of Danish and Italian scenery, as well as a great many



Phot. by Værling.

Dahi: Waterfall.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.



Dahl: Birch in a Storm.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS

studies made in the neighbourhood of Dresden. His pictures are found in innumerable galleries and private collections, especially in Germany, Denmark and Norway. Of his earlier work, the beautiful picture, «Den store kro» (The Large Inn) ought to be mentioned, the subject of which is taken from the Fredensborg district in Denmark. He has painted a series of pictures of the scenery of western Norway, among them the «Prospect fra Stedje» (View from Stedje), with its summer luxuriance and brilliant sunshine. Pictures like his sober, autumnally cold «Jostedalsbræ» (Jostedal Glacier) are more wild and romantic; and among his numerous and often masterly moonlight pictures, «Kjøbenhavn i maaneskin» (Copenhagen in Moonlight) is highly characteristic. But no picture can better serve as a type of Dahl's lyrically touched and patriotic art than his beautiful «Birk i storm» (Birch in a Storm).

Not only by his art, but in various other ways, did Dahl labour to awaken a lasting art in Norway. He took the initiative of founding a national gallery, was active in the establishment of art unions in the larger towns of Norway, and laboured for the preservation or restoration of our old monuments; and he even published a work — the earliest in existence — on the Norwegian timber churches of the middle ages.

During the latter part of Dahl's life, new schools of painting, differing widely from his naturalism, took the lead in the German artistic world in Düsseldorf and Munich; and unfortunately for Norwegian artistic development, it was these newer schools that attracted most of the young painters that came from Scandinavia to study in Germany. Among the few Norwegian painters who came to Dresden in Dahl's earlier years, there were only three, Fearnley, Baade and Frich, who became his pupils. Of these three, Fearnley is by far the most talented, and the only one who can be said to have carried on in any degree Dahl's artistic tradition, although his subsequent development led him away from the simple naturalism of his master.

THOMAS FEARNLEY (1802—1842), after having studied at the academies in Copenhagen and Stockholm, went in 1828 to Dresden, and sympathetic relations were soon established between him and Dahl. Fearnley, however, who all his life was consumed with a passion for travel, continued under Dahl's guidance for barely two years. In Munich he did not escape being influenced by Rottmann's

effective, decoratively idealistic landscape; and the impression left by the gigantic lines of the Alps, and the clear Italian landscape, together with the enlightening effect of ancient art, must have strengthened his tendency to overleap the bounds of Dahl's naturalism, and give his art a higher flight. As a creative and poetic artist, he was at any rate Dahl's equal, and his best pictures are composed with great artistic talent, and a masterly command of tone. His large, imposing «Labrofos» (Labro Waterfall) is most characteristic in this respect, and is without comparison the grandest composition ever produced by Norwegian painter. A number of his compositions are almost equally grand. He loved Nature in her majesty — the wide plains and the precipitous peaks, the glacier and the broad ocean. He is one of the few Norwegian painters who has depicted Italian scenery; but his subjects were taken by preference from Norway and the Swiss Alps.

One of Dahl's two other Norwegian pupils, KNUD BAADE (1808—1879), made a specialty of moonlight pictures. Baade lived for the greater part of his life at Munich, whereas J. C. G. FRICH (1810—1858) was the first Norwegian painter who ventured to make his permanent abode in Norway. Among the latter's most famous works are the decorative landscapes from beautiful parts of Norway, that he executed for the summer palace of Oscarshal, near Kristiania.

Among the other contemporary artists, we would name JOHAN GØRBITZ (1782—1853), who lived abroad for many years, but after his return to his native country displayed considerable talent as a portrait-painter of artistic and technical ability.

The next generation of painters who appeared in the forties, and whose art during the next twenty years became the prevailing kind among Norwegian artists, rather indicates a break than a natural continuation in the path entered upon by Dahl. These young Norwegian artists also went to Germany to learn, and most of them continued their labours on German soil. In the studios in Düsseldorf, a new school was now gaining ground, and had made large conquests among the public. This, as is well-known, laid great stress upon colouring and picturesque technique combined with a more realistic choice of subject. The historical genre picture and representation of national life became the field *par excellence* of the Düsseldorf painters' endeavours. But the



Fearnley: The Labro Waterfall.

Phot. by Yering.

THE NEW YORK
PUBLIC LIBRARY
ASTOR LENOX AND
TILDEN FOUNDATIONS

school had not been in existence many years before a heavy atmosphere weighed upon its productions, and after losing its distinguished pioneers, it shrank into a narrow-minded reaction against the high-flying idealistic endeavours in the art of the earlier generation. At the same time, it degenerated into a colouring that was chiefly a *réchauffé* of old gallery art, and as insipid in its lukewarm sweetness as in its motley magnificence. In its healthier days, the school had dived into the world of reality to replenish its stock of subjects, but not nearly deep enough to result in historical paintings or representations of country life in which the figures moved freely and naturally. Sentimentality and artificial humour occupies a large place in the Düsseldorf art, in which the coarse-grained distinctness of the story was of more importance than all the other qualities of a picture.

It cannot therefore be denied that the choice of Düsseldorf by the young painters of this time, was a fateful one as regards the development of Norwegian art. The talented productions of the English painter, Constable, in modern landscape, were unknown to the artistic development of Norway; and no reflection of the brilliant colouring and imaginative glow that romance at this time was throwing over French art, was visible in the Norwegian. But nevertheless, Norwegian art was approaching a happier period, which, in the general opinion, is the golden age of Norwegian art. The reason of this must be chiefly sought in the development through which the Norwegian public had passed, and the harmony between the new art and corresponding movements in other departments of intellectual life. In Norway, as in most other countries, a strong intellectual movement was fermenting during the forties, which found its warmest expression in the homage paid by national feeling to its own scenery and the life of its own people. In this national self-discovery, all kinds of art took part; and a delight and reliance in themselves awoke in the people, which acted encouragingly upon the artists living abroad. And the romantic tendency of the Düsseldorf school towards effective scenery, and its attempt to include pictures of country life in their stock of picturesque subjects, only had the effect of making the Norwegian painters hasten to go with the national current, and seek for subjects for their art in their native scenery and the characteristic peasant life of their native land. When the year of the Revolution, 1848, temporarily drove the flock of Norwegian artists home, the meeting between

them and the public there was of the nature of a fête, which also strengthened the future relations between the nation and its artists.

The most prominent personality among the painters who were under the influence of the Düsseldorf school, is ADOLF TIDEMAND (1814—1876). This is not so much on account of his artistic talent, as because he was the first Norwegian figure-painter worthy of mention, and because his art became an outlet for the expression of the national movement in his native land. After Tidemand had studied for five years at the academy in Copenhagen, he went to Düsseldorf with the distinct purpose of becoming a historical painter. A journey through Norwegian mountain districts, however, decided the direction which Tidemand's art was subsequently to take. On this journey, as on subsequent journeys in Norway, he collected exceedingly abundant material for his pictures of country life — characteristic types, dresses, interiors and fittings, from various parts of the country. He also tried to make himself familiar with the ideas, manners and customs of the peasant population. In 1844, he exhibited his first picture of country life — «Eventyrfortællersken» (Story-teller), which was soon followed by a number of others. When the scene of the picture was laid in the open air, Tidemand availed himself of the services of his friend Gude, who painted the landscape for him. This was the case in the famous picture «Brudefærden i Hardanger» (Bridal Party in Hardanger). «Haugianere», which is considered to be Tidemand's principal work, appeared in 1848. It represents a service being held in a peasant's cottage by a lay-preacher of the Haugian sect, a religious sect that was at that time exerting a deep and lasting influence upon the Norwegian peasant population. Of all Tidemand's works, however, the best known are his series of pictures of Norwegian peasant-life, «Norsk bondeliv» — 10 circular, decorative paintings, executed for the dining-hall in the palace of Oscarsholm, near Kristiania. His little picture «Sognebud» (Visitation of the Sick), however, gives a more favourable impression of Tidemand's art than anything else.

In his later years, Tidemand forsook idyl and elegy, and tried to create an art over which the storms of life raged, and where the waves of passion ran high. To this time belong the two great compositions, «Efter tvekampen i et norsk bondebryllup» (After the Single Combat at a Norwegian Peasant Wedding), and «Fanatikere»



Tidemand: Hauglanere.

Phot. by Varing.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

(The Fanatics). The latter of these is certainly among Tidemand's best, and on the whole indicates the height to which the Düsseldorf school has attained.

Tidemand's art has exercised considerable influence upon Norwegian development in culture, as also on poetry and music; while abroad too, his name became famous, and turned the gaze of strangers upon the people to whom he belonged.

The name of HANS GUDE (born in Kristiania, 1825) is closely associated with that of Tidemand. A lasting friendship and frequent collaboration united the two artists until Tidemand's death. Gude's is the second central figure in Norwegian art development from the middle of the century. By his exceedingly abundant and varied production, and his important work as a teacher, he has exerted a great influence upon art, not only in his own country, but also in Germany.

In 1841, Gude went to Düsseldorf, where Oswald Achenbach and J. W. Schirmer were his principal teachers. But the independence of his nature, and his dread of all extremes, kept his art from a mere imitation of Schirmer's cold classicism, or Achenbach's fiery colouring; and under changing circumstances of life and various influences, his pliable talent has worked its way out of the weaknesses of the Düsseldorf school, and found fresher and more personal forms of expression. But his productions have never been influenced either by the ancient art of Italy, or the modern art of France.

In 1854, Gude became professor of landscape-painting at the academy in Düsseldorf. In 1862, after residing in Wales for the purpose of study, he went in the same capacity to Carlsruhe, and since 1880, Berlin has been the scene of his labours. In all three places he has been surrounded by a crowd of pupils, Scandinavian and German, who have learnt to appreciate not only his ability, but also his noble disposition and sincere amiability.

In spite of his versatility as regards motives, Gude's art is for the most part a representation of Norwegian mountain and fjord. In natural self-development, it has passed from romance to realism, and from a subjective display of feeling to an objective depicting of nature. The subjects of Gude's earlier pictures are generally taken from the desolate mountain region, and from the majestic scenery of western Norway. In later years, on the other hand, it has been the gentler fjords and less pretentious landscapes

of the east country that have attracted him most. From other countries, Gude has also taken subjects for a number of his pictures — from the Rhine and from Austrian mountain lakes, from the Welsh mountains and from Scotland's rocky coast, from Denmark and from the shores of Rügen Island.

In water-colour also, which he handles with a master's hand, Gude has often given delightful proof that his sense of beauty and constant pleasure in Nature does not forsake him in his old age, when he stands face to face with her.

Among the numerous Norwegian pupils that Gude has had, none has possessed a richer and more personal order of talent than HERMAN AUGUST CAPPELEN (1827—1852). He is the most decidedly lyric of all Norwegian painters. His larger pictures are majestic, free colour-poems on nature, rather than artistic representations of its realities. His «Uddøende urskov» (Dying-out of a Primeval Forest) is the most emphatically romantic picture in Norwegian art. But in addition to this fictional scenery, Cappelen has left behind him a large collection of capital open-air studies from Norway, and in these we find as intimate and devoted an acquaintance with nature as in any old hunter and forester. Here Cappelen is a painter that has forgotten the art of composition, and disdained the gorgeous colours of the studio palette, only to make himself thoroughly acquainted with nature. Almost all these sketches represent detached fragments of scenery, single natural objects as they happened to occur. They are freely and broadly painted, with the same ready talent as the pictures, but in a dark and unassuming colouring that has nothing in common with the Düsseldorf school's display of colour.

JOHAN FREDERIK ECKERSBERG (1822—1870) was a marked contrast to Cappelen, and the first true realist among Norwegian painters. With the exception of three years of study in Düsseldorf, and a couple of years spent in Madeira to get rid of a dangerous chest-affection, Eckersberg lived in Norway. In 1859 he established an art-school in Kristiania, which was soon well attended and supported by government. His 11 years' work here has had a decided significance for the younger generation of Norwegian painters, most of whom have been his pupils. The foundation of their respect for nature and sober vision was no doubt laid under the guidance of this teacher, whose greatest qualities as an artist were honesty and faithfulness to nature.



Phot. by Væring.

Gude: From the Norwegian Coast.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

Eckersberg's productions, which are both abundant and valuable, are almost exclusively of Norwegian subjects. He was especially happy in his representation of bare mountain scenery; and «Høifjeld» (Highland), in the National Gallery in Kristiania is one of his most important pictures.

Among other Norwegian painters of this generation may be mentioned MORTEN MÜLLER (born 1828) — whose favourite subjects are Norwegian coast-scenes, and above all Norwegian pine-woods —, ERIK BODOM (1829—1879) — whose partiality was for deep, silent mountain-tarns overshadowed by mountain-ridges —, and G. A. MORDT (1826—1856).

Three of the artists of this generation studied and worked elsewhere than in Düsseldorf, namely, the clever animal and portrait painter, SIGVALD DAHL (born in Dresden, 1827, and still living there), a son of Professor J. C. Dahl, FRANZ BØE (1820—1891), the Bergen flower, fruit and still-life painter, and JOHAN JAKOB BENNETER (born 1822), a marine painter who studied in Paris.

In figure-painting, the tradition begun by Tidemand was continued by KNUD BERGSLIEN (born 1827), a peasant lad from Voss. He has painted several historical pictures, among which his «Birkebeinske skiløbere flygter over fjeldet med Haakon Haakonssøn som barn» (Birkebeiners Crossing the Mountains on Ski with the Child Haakon Haakonssøn) is the best known. He has also painted portraits, and undertook the management of the art-school in Kristiania after Eckersberg's death.

PETER NICOLAI ARBO (1831—1892) is an artist who has often set great aims for his art, and is one of the few Norwegian historical painters. He belongs to the Düsseldorf school, but has also been influenced by French art. His best known works are on subjects from Scandinavian mythology and legend, especially «Valkyrien» and «Aasgaardsreien». He has also painted historical pictures, scenes from military life, hunting scenes, and portraits.

V. ST. LERCHE (1837—1892) also belongs to this set of Düsseldorf painters. In his numerous pictures of every-day life of the Rococo period and the peruke age, and still more of cloister life, he has displayed a talent for epic art, and a genial humour that have made his pictures popular. To the same period belong also AASTA HANSTEEN (born 1824) — who soon gave up her portrait-painting for literature —, the genre-painter, MATHILDE DIETRICHSON (born

1837), the clever animal-painter, ANDREAS ASKEVOLD (born 1834) — who has kept almost exclusively to representations of Norwegian sæter-life —, the practised landscape-painter, SOPHUS JACOBSEN (born 1833), the honest and amiable depicter of Norwegian east-country life, C. D. WEXELSEN (1830—1883), the landscape-painter SCHANKE, the marine painter BOLL, and others.

In the course of the sixties, Düsseldorf gradually ceased to be the art-centre of Norwegian painters. An external cause of this was Gude's removal to Carlsruhe in 1862. But in reality Düsseldorf had played itself out; and even an artist like Ludvig Munthe, who lived in Düsseldorf until his death, clearly marks the break, and forms the transition to a new view of the aim of art.

CARL SUNDT-HANSEN (born 1841) studied indeed, after three years in the Copenhagen academy, for a time in Düsseldorf under the realistic genre-painter, Vautier; but since that time he has spent three years in Paris, nine in Stockholm, and the last twenty in Copenhagen; so that in reality only a short period of his artistic career has been passed on German soil. He is the only worthy follower of Tidemand as a painter of peasant-life, and is perhaps that artist's only superior rival in Norwegian art. His drawing is remarkably sure, with expression in every detail. His art bears throughout the stamp of quiet, repressed melancholy, without pathos and without sentimentality. The betrayed and forsaken peasant-girl from the folk-song, «Ifjor gjætt' e gjeitin»; a fisherman patiently waiting for a haul; «Hjemsøgelsen» (the Visitation) that has fallen upon a young couple who are standing by the coffin of their child; the condemned man's confession in «Lensmandsarresten»; the sombre gathering around the flag-covered corpse in «En begravelse ombord» (Burial at Sea), are the subjects of his most important pictures.

The Norwegian landscape-painter, LUDVIG MUNTHE (1841—1896), contemporary with Gude and following Dahl, also won a name in Europe. He is one of the most refined colourists among Norwegian artists, and soon made for himself a personal range of subjects and a marked technique which he developed to a high degree of virtuosity. In France, Corot, Rousseau and Daubigny had contributed, each in his own way, to free the art of landscape-painting from antiquated conventionalism, and, in opposition to the plastically constructed composition-landscape, had formed a landscape-art with



Cappelen: Dying-out of a Forest.

Phot. by Væring.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

a simpler choice of subjects, a more whole, more refined tone of colour, and a more personal feeling — *le paysage intime*. Munthe, who after the sixties only left Düsseldorf to visit Norway, or to take his frequently repeated journeys in Holland and France, can hardly be said to be directly influenced by these French artists; but French landscape-painting has certainly exposed the subject-trickery of the Düsseldorf school to him. He apparently contents himself with the simplest subjects; but these afford him the amplest opportunity of revelling in soft, insinuating, delicately harmonised tones. He delights particularly in snow landscapes, more especially the rainy, gray aspect of a thaw, or the dusk of a winter evening with the fading glow of the sun, or the faint glimmer of the moon across the snowy plain; but he has also an affection for the autumn landscape with its sweet, melancholy colour harmonies. And a picture like his «Vinteraften ved den norske kyst» (Winter Evening off the Norwegian Coast), which he presented to the Norwegian National Gallery, is the work of a master.

With Ludvig Munthe, the Düsseldorf tradition in Norwegian art was broken, and the way prepared for the naturalistic view. And while Gude, in Karlsruhe, was aiming at a direct reproduction of nature, elements were moving in the new school of colourists in Munich, that only needed an impulse from without to carry them on to naturalism. The impulse came in the shape of a breeze from the light-flooded landscape of the French open-air painters. We now find the greater number of the Norwegian artists gathered at Munich; and the most advanced of them afterwards came to stand under the influence of the Paris school, and the badge of naturalism. But before passing on to these artists, we must mention a few who began their artistic career in Düsseldorf, but who, sooner or later, allowed themselves to be influenced by the new tendency. This was not the case with the conventional RASMUSSEN (born 1842) and the figure-painter HANS DAHL (born 1849).

AMALDUS NIELSEN (born 1838) went in 1860 to Düsseldorf, and then became Gude's pupil in Karlsruhe, but since 1869 has lived in Norway. His talent as a Norwegian landscape painter is of the most solid and genuine order. His province is the fjord scenery of southern Norway — «Morgen ved havet efter storm» (Morning by the Sea after a Storm), «Aftenstemning fra Hvaløerne» (Evening on the Hvaler Islands), «Morgen ved en

lodshavn» (Morning at a Pilot-haven), «Frembrydende uveir over Hardangerfjorden» (Storm Breaking over Hardangerfjord), etc.

JOHAN NIELSEN (born 1836), akin in style to Amaldus Nielsen, and of about the same age, is a painter of south-country coast scenery.

FREDEK COLLETT (born 1839) also began as Gude's pupil, afterwards studied in Munich, and finally was strongly influenced by the French open-air tendency. Whereas he at first chiefly sought his subjects in the south-country fjord scenery, he afterwards made the east-country winter, with its masses of snow and half frozen rivers, his special study.

ADELSTEN NORMANN (born 1848) has also made Norwegian, and especially the north-country fjord, scenery his special study. Since leaving Düsseldorf in 1887, and settling in Berlin, where he has joined the opposition, Normann has always tried to get rid of the sensationalism that marks his earlier pictures. The landscape-painter, LUDVIG SKRAMSTAD (born 1855), also studied in Düsseldorf and Munich. His province has been the fir forest in autumn mist and winter.

Of the painters that have studied in Munich, the older generation is far less important and interesting than the succeeding one, which afterwards came under the influence of the French open-air painting. We will mention the figure-painter OSCAR WERGELAND (born 1844), the genre-painter MARKUS GRØNVOLD (born 1845), the figure-painters WILHELM PETERS (born 1851), and AXEL ENDER (born 1853). The last-named has recently shown sufficient energy to depart from a long pursued course of conventional painting, and with fresh vigour devote himself to sculpture. To this generation also belong ANDREAS DIESEN (born 1844), a painter of mountain scenery, FRIDTJOF SMITH-HALD (born 1846), a painter of coast scenery, JOHANNES MARTIN GRIMELUND (born 1842), whose subjects are sea and shipping, the figure-painter CHRISTIAN ROSS (born 1843), and especially the versatile OTTO SINDING (born 1842), a brother of the sculptor, Stephan Sinding, and the composer, Christian Sinding. Sinding had already made his début in literature before he began his artistic studies under Eckersberg, continued under Gude's guidance, and lastly in Munich. His restless and ambitious artistic temperament has incessantly tried to find satisfaction in a variety of tasks. Not only has he divided his great working-powers between painting and literary or scenic interests, but even in painting



Petersen: Summer Night.

Phot. by Varing.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

his course has been a feverish quest, with sharp turns and leaps — marine pictures and genre, historical scenes, panoramas (Battle on the Plains of Leipzig) and stage scenery, representations of fishing-life on the Norwegian coast, and of landscapes and peasant-life from Lofoten, Finmarken and the arctic regions. His Protean nature has incessantly changed its manner of manipulation, and satisfied itself with new experiments; but in all this versatility it is difficult to recognise other features than those marked by will and energy.

In the fighting generation of painters that now follows, EILIF PETERSEN (born 1852) and HANS HEYERDAHL (born 1857) occupy a somewhat special place. Both are to some extent transition figures, receptive geniuses that have been exposed to the influence of two widely-differing views of art. At the time when open-air painting and impressionism took art by storm, and drove the Norwegian painters in Munich first to Paris to look and learn, and then home to fight and act, EILIF PETERSEN was already a mature artist. It was no easy matter for him to break completely with his German tradition, change his ideals, and alter his method; but he did all this. As a high-principled artist, he followed the banner whose motto was, Forward and home; as a good soldier he took a manly and honest part in the struggle. Eilif Peterssen was first a pupil of Eckersberg, then went to the Copenhagen Academy, and thence to Karlsruhe and Munich. In the picture-galleries he became greatly influenced by old art, and then went to Italy to see more of those old colourists who were his real teachers. He then went with the stream to Paris, and in 1883 joined his fellow-students when they went home to make a conquest of their country. His very first pictures attracted great attention, and his «Christian II underskriver Torben Oxes dødsdom» (Chr. II Signing Torben Oxe's Death-warrant) was an astonishing performance for a young man of 23, a masterly work in the perfection of its composition, its strength and fulness of colour, and especially its psychological character. The study «Judaskysset» (Kiss of Judas) with its evidences of Venetian influence, opens the series of Peterssen's Biblical pictures, of which we will mention the 4 large altar-pieces «Korsfæstelsen» (Crucifixion), «Hyrdernes tilbedelse» (Adoration of the Shepherds), «Kristus i Emmaus» and «Kristus i Gethsemane». His endeavour here has been to unite his new naturalism with the grandeur such art demands. His large street scene, «Fra Piazza

Montanara», with its effective colouring, and his capital «Siesta i et osteri i Sora» are perhaps the best-drawn figure pictures in Norwegian art. The scenery in his large «Nocturne» is taken from the neighbourhood of Kristiania, the soft beauty of a northern summer night being symbolised in the naked figure of a girl. Lastly, Eilif Peterssen has also painted portraits of a high order of excellence, the best among them being a fine portrait of his wife, and the melancholy one of the author Arne Garborg.

Easily influenced and yet highly original, experimenter and dreamer, of a paradoxical and obscure nature, but at bottom a true genius in art, HANS HEYERDAHL is perhaps the most interesting of all the artists of the eighties. There is none so unequal as he, none have taken such sharp turns and made such strange oscillations between genius and triviality; but with all his eccentricities and momentary fits of weakness, he is and will continue to be the favoured colourist of Norwegian art. In 1874 he went to Munich, and in 1878, when only 21 years of age, the young artist received a prize for his «Uddrivelsen af Paradis» (Expulsion from Paradise) from the French government, who also purchased the picture. Heyerdahl now became a pupil of Bonnat, and at the same time studied in the Louvre. It is from this period that his capital copies of Bellini, Raphael, Ribera and Rembrandt date. By «Det yngste barns død» (Death of the Youngest Child) he won the prize offered by the art periodical «*L'Art*», a three years scholarship for the purpose of studying in Florence. From the Paris period dates also his conscientious and refined portrait of the actress, Laura Gundersen. The beautiful picture of «Two Sisters», which Heyerdahl painted after his return to Norway, perhaps the most pleasing picture in the Norwegian National Gallery, is the ripe fruit of the twofold influence of open-air painting and free Italian, especially Venetian, art. In his pictures of «Badende gutter» (Boys Bathing) and «Havfruer» (Mermaids), as also in other later pictures, Böcklin's influence is easily traceable. One of Heyerdahl's most beautiful pictures is the solemn «En arbeiders død» (A Workman's Death). In addition to these figure pictures, he has produced a considerable number of landscapes and portraits. Of late years, in opposition to the French naturalism, and in obscure enthusiasm for a pan-Germanic historical art, Heyerdahl has produced several great works on subjects taken from Scandinavian mythology. These, however, principally betray the fact



Meyerdahl: Two Sisters.

Phot. by Varing.

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS.

that he is not a profoundly thoughtful painter: his talent lies in a sense, and voluptuous enjoyment, of beauty, a love of delicate form, and an intoxication in the sweetness of colour.

In striking contrast to an artist nature of this kind are the two artists who were the actual leaders in the hard fight that led, in the eighties, to the victory of naturalism in Norway, namely, **ERIK WERENSKIOLD** and **CHRISTIAN KROHG**. The battle was not only to win an uncomprehending public, but was directed against a whole tendency, the German traditions of Norwegian art, its cast-off idealism, its false romanticism. That the battle was comparatively short was due in the first place to the fact that the contending band of artists were not only possessed of courage, but also of a fair amount of talent. Moreover, they had for their background the realistic current which was at that time so strong in all departments.

ERIK WERENSKIOLD (born 1855) studied in Munich from 1875 to 1880, but early began to emancipate himself from the artistic views of his teachers. At the same time, he avoided picture galleries, and acknowledged no other source of instruction in his art than the immediate study of nature. It was the numerous exhibits of French naturalistic painters in the Munich exhibition of 1879, that opened his eyes to the road he was to follow in the future. He then went to Paris, where he studied for three years, and became a thorough convert to naturalism and open-air painting, with subsequently a leaning towards impressionism. In 1883 he settled in Norway, where he became the artist who most clearly formulated the programme of the new tendency, and planned the strategic tactics.

Werenskiold's art production is not really very wide-ranging, and his choice of subjects is chiefly limited to the scenery of his native country, and ordinary every-day life, and to portraits. Everything that he has done bears the stamp of solidity; but with all its solidity, his work is by no means lacking in charm. Even his early picture, «*Et Møde*» (A Meeting), is altogether realistic in character; but it was not until he had returned to his native country, that he produced his two excellent pictures, «*Telemarksjenter*» (Telemarken Peasant-girls) (1883) and «*Bondebegravelse*» (A Country Funeral) (1885), both in the National Gallery. In both pictures the landscape is as important a part of the picture as the figures themselves. For the first time in Norwegian art, we have pictures that are

seen entirely in the open air. One of Werenskiold's most beautiful landscapes, with most feeling in it, is «Sommeraften» (Summer Evening) (1893). As a portrait-painter, Werenskiold is unsurpassed in Norwegian art with regard to thorough work, striking likeness and forcible characterisation; and although he is no born colourist, his portraits are of high artistic excellence. We will here mention his portraits of Bjørnstjerne Bjørnson, Erika Nissen, Frederik Collett, Fridtjof Nansen, and above all, Henrik Ibsen. Werenskiold has gained still greater renown as a draughtsman. The highest achievement of his art is the illustrations to Norwegian fairy-tales. Of late years, he and one or two other Norwegian artists have been engaged in illustrating Snorre Sturlason's Norwegian Royal Sagas.

CHRISTIAN KROHG (born 1852) had passed his law examinations before he went to Carlsruhe, where, and at Berlin, he studied under the earnest realist and figure-painter, Gussow. In Berlin, his friendly intercourse with Max Klinger, who was at that time in the middle of his realistic period, was of special significance for Krohg whose subsequent theories of art were probably influenced by his friend's pessimistic social philosophy. Later on, in Paris, he was forcibly attracted by the realistic current of the eighties, and, at about the same time as the other artists, returned to Norway. Impressionism for him was not merely a new view of art, but an actual new artistic form resting on new social, ethical and religious theories. Art was to have a social aim in the struggle with poverty and injustice, with hypocritical social laws and a morality that was at enmity with happiness. The portraying of reality came therefore to some extent to be placed at the service of the tendency, e.g. in «Daggry» (Dawn), «Besøget hos doktoren» (Visit to the Doctor), «Kampen for tilværelsen» (Struggle for Existence) and «Albertine». This theory of art was defended by Krohg and his companions-in-arms with an uncompromising scorn of existing conditions, and an impulse to manifest it in acts, that aroused the wrath of the good citizens and a fierce mental fermentation among the youthful members of the community. This was especially the case when Krohg, in a large picture and a little book, both bearing the name of «Albertine», had set himself the task of giving an unvarnished account of the seduction of a poor Kristiania girl, and the brutality of police-protected prostitution. After this, Krohg devoted himself entirely to art. Only during the last few years has he resumed his literary



Werenskiold: Portrait of Henrik Ibsen. Phot. by Væring.

THE NEW YORK
PUBLIC LIBRARY

AETOR, LENOX AND
TILDEN FOUNDATIONS.

labours in altogether different fields, and especially as a witty and humorous writer of newspaper articles. Among these the interview combined with portrait, is his peculiar province. A series of them has been published under the title of «Dagens mænd» (Men of the Day).

Kroh's work has reached its highest artistic perfection in his pictures from Skagen, which are free from every purpose but that of delighting the eye — «Gammel kone» (Old Woman), «Sovende fiskerfamilie» (Sleeping Fisher-Family). Kroh has produced a true and characteristic type from the east-country pilots and sailors. Among his pilot pictures, we will mention «Nordenvind» (North Wind), «Det tunge budskab» (Heavy Tidings), and «Hart læ» (Hard a-lee). Closely allied to these is his one attempt at historical painting — «Leiv Eriksson som opdager Amerika» (Leiv Eriksson Discovering America), now in the Chicago Museum. Kroh has also executed capital portraits of Johan Sverdrup, and of Gerhard Munthe and other Norwegian artists. On the other hand, his illustrations to Henrik Ibsen's «Terje Viken» and Snorre Sturlason's Royal Sagas are of less importance.

FRITZ THAULOW (born 1847) may be named as a third leader in the cause of naturalism. He first studied in Copenhagen, and then in Carlsruhe under Gude; but most importance attaches to the three years he studied in Paris. His young and enthusiastic artist's soul found a new ideal in open-air painting. When he came home, he founded an open-air academy at Modum, where his example, his enthusiasm, and his persuasive personality, exercised a great influence upon the younger generation of landscape-painters. He was truly made to gather young men about him. Enthusiastic and amiable, rich and independent, active and handsome, full of good humour and bold confidence, he was one of the central figures in the young generation of artists. Thaulow is very sensitive to enjoyment in art, and his aim in painting is to give an impression of beauty. In his earlier winter pictures, he has represented the clear Norwegian winter's day with great freshness. But his art is always insinuating, whether he paints sunny pictures or nature veiled, which is really his element, whether he reproduces Norwegian or French scenery. Of late years, he has returned to the studio, and it is especially by his later productions that he has won warm admirers in Paris, London and America, and an international renown. But it would be of little use to instance a few examples of his extraordinarily facile and multitudinous pro-

duction. To obtain a complete idea of his style, it would be necessary not only to go through the various public galleries at home and abroad, but also seek out pictures in private collections on both sides of the Atlantic.

GERHARD MUNTHE (born 1849) also studied in Munich, together with Peterssen, Werenskiold and Heyerdahl, but was afterwards strongly impressed by modern French landscape. His landscapes from the time he was in Germany reveal a decided gift of colour, and proficiency of artistic manipulation. When he came home, however, with his eyes opened, through French art, to open-air painting, it was not to see Norwegian scenery with French eyes. His art early acquired a strongly national character, and he became especially an east-country painter. Munthe has always been fond of a country life, and in the recollections from his childhood, his impressions of nature were always interwoven with those of the old peasant art and circumscribed imagination. But the peasant's former sense of colour seemed to be dying out. In 1893, Munthe exhibited 11 fanciful illustrations of Norwegian fairy-tales, in which he attempted to break through the narrow range of naturalistic subjects, and, on the basis of our old peasant fancy as shown in its pictorial representations, to raise a new, personal imaginative art, with harmonious colours in primitive combinations. From the very first, these fancies seemed to be intended as patterns for some kind of art needlework; and since then a number of cloths woven after the old national style have appeared, that in choice of colour and technical execution are in close imitation of Munthe's designs. In this decorative art of his, Munthe is not only an artist, but also a missionary; and he appears to have set himself the task of healing the eye for colour, weakened by an international fashionable art. And his colour propaganda in the field of cloth-weaving has not been in vain; for his style of cloth is now the prevailing one in the flourishing Norwegian art of weaving. We find similar tendencies in the «Eventyrværelse» (Fairy-tale Room), a room in the Holmenkollen Hotel, near Kristiania, decorated by Munthe in grotesque polychrome fairy scenes, cut out in wood, and fantastically ornamented; and also in his archaistic and strongly national, coloured illustrations to Snorre Sturlason's Norwegian Royal Sagas, that are evidently influenced by the buried art of the bronze age.

All the artists of the naturalistic school hitherto named, are the outcome of town culture. With the exception of Thaulow,



Krohg: Norwegian Pilot.

Phot. by Verring.

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS.

who has always been a downright internationalist, they have all, among other things, worked with full consciousness for the nationalising of Norwegian art, have tried to free themselves from foreign influences, whose transitory usefulness they acknowledged, but in whose lasting dominion they saw the greatest danger for artistic originality and depth. All the stranger is it that the most strongly influenced by French art is the peasant-born CHRISTIAN SKREDSVIG (born 1854). In his earlier productions, he actually stands out from the Norwegian naturalistic artists as the least Norwegian of them all. On returning home, however, after his years of apprenticeship in France, it was not long before the peasant, lyric instinct in him obtained the mastery over the artistic, and in his later work, he has returned with full consciousness to the country districts and the recollections of his childhood. But all through there runs an undertone of something foreign and highly cultured in his manipulation and colouring. After 1874 he studied in Paris, where his «Ferme à Vernois» was purchased by the French State, while his «Landskab fra Corsica» was purchased for the Luxembourg Gallery. We will also mention his large picture of the plains of Grez, his «Ballade», «Paa vildstraa» (On the Wrong Scent), «St. Hansfest» (Midsummer Eve), «Valdrisvisa» (a series of water-colour drawings), «Menneskens søn» (the Son of Man), which recalls Uhde's style, and especially «Vinje's barndomshjem» (Home of Vinje's Childhood).

NICOLAI ULFSTEN (1853—1885), the talented painter of Lister's stony shores, and the sea-washed sands of Jæderen, was a discoverer in Norwegian landscape-painting. He was a clever painter, a distinguished colourist, and a sure draughtsman. His sketches and studies have an almost impressionistic freshness, and his pictures an altogether superior character.

JACOB GLØERSEN (born 1852) takes his subjects from the thick forest and the snowclad ridges, as in «Paa rudgepost» (On the Look-out for Woodcock), «Snefok» (Snow-storm).

KITTY KIELLAND (born 1844) also takes most of her subjects from Jæderen, but it is the marshes and sand-hills farther inland, not the coast.

The most able and talented Norwegian lady-artist is HARRIET BACKER (born 1845). Interiors are her special province, and there is no Norwegian artist who has seen indoor colours more delicately, richly and characteristically harmonised than she, or who has

painted in all its breadth and shades, the light streaming in through the low window in a brightly-coloured peasant's cottage, flooding the surface of a table, glancing on a face, lighting up a red shirt, or sinking into richly-coloured shadows. As a colourist, she surpasses most of her naturalistic fellow-artists; she is stronger than Thaulow, more refined than Krohg.

All these artists have stood close together round the banner of naturalism. THEODOR KITTELSEN (born 1857), on the other hand, has gone his own strange way. As early as the seventies, he had painted in Munich the clever picture «Streiken» (the Strike), and since that time he has now and then painted a picture; but he has never really felt at home in oil-painting. He is of a twofold nature; he is a humorist and a lyric poet, a visionary and a poetic genius. His series of drawings of the Homeric «Batrachomyomachia» is a masterpiece of satirical animal humour. Racy humour characterises his illustrations of Wessel's «Hundemordet», and his drawings «Fra livet i de smaa forhold» (From Life in Small Circumstances). But it is in the illustrations of Norwegian fairy-tales that we first learn to know Kittelsen's imaginative art to the full — «Nøkken» (Water-sprite), «Heksen» (Witch), etc. During a couple of years' stay on a barren Lofoten island, his highly-tuned natural fancies, «Fra Lofoten», came into existence; and the most mature fruit of Kittelsen's talent originates from his native place — «Jomfrulandsserien», a series of landscape effects whose charm lies in their original feeling, and the simple grace of their execution.

Among the painters who began in Munich must further be named the clever draughtsman and cultivated artist, BERNT GRØNVOLD (born 1859); the animal-painters, CARL UCHERMANN (born 1855) — of whose pictures we will mention «Flamsk hundeforspand» (A Flemish Dog-Team) — and ELISABETH SINDING (born 1846); OLAV RUSTEN (born 1850), influenced by the old German portrait-painting; the figure-painters, JAHN EKENÆS (born 1847) and C. FRITHJOF SMITH (born 1859), professor in Weimar; ASTA NØRREGAARD (born 1853), portrait-painter; WILHELM HOLTER (born 1842), portrait and genre painter, who has been director of the art and handicrafts school in Kristiania since 1884; NILS BERGLIEN (born 1853), who has painted scenes from Norwegian peasant-life; the landscape painters, PHILIP BARLAG (born 1840) and CARL NIELSEN (born 1848), GEORG STRØMDAHL (born 1856); and the marine painter, CARL WILHELM BARTH (born 1847).



Thaulow: Ravensborg.

Phot. by Vering.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

While all these artists have been far from the naturalistic opposition this is not the case with the landscape-painters, EDVARD DIRIKS (born 1855), FREDRIK BORGES (born 1852, see page 323), the figure-painter, FREDRIK KOLSTØ (born 1860), NILS HANSTEEN (born 1855), the fine and noble painter of Norwegian scenery, wood and valley, coast and sea, and the marine painter, HJALMAR JOHNSEN (born 1852). Kolstø especially has produced very interesting things as regards impressionistic technique. In his sunny pictures of Capri's white loggie, he has also obtained peculiar effects. As the caricaturist of the period, and the most generally employed illustrator, ANDREAS BLOCH (born 1859) has evinced untiring activity. This branch of art has subsequently had talented followers in O. KROHN, G. LÆRUM and O. GULBRANDSEN.

The younger artists, whose dedication to art took place during the contest about the open-air painting, are all colourists more or less. They all have their weak point in drawing, and their limitation in a poorly developed power of composition. For all of them the necessary requirement of good art was that it should be done «correctly», that it should be soberly observed and reproduced with unflinching «correctness», which again was as much as saying that it was to be correct in colour, and produce an illusory effect. There is an earnest intention to be true in their contemplation of nature; and their courageous colouristic efforts and bold manipulation can sometimes even throw their masters' pictures into the shade. Several of these artists have also undergone considerable changes with the passing years, have sought out a path of their own, and have attained to greater maturity and clearness in their art.

GUSTAV WENTZEL (born 1859) is one of the most eminent of this generation. He made his début with an interior — «Billedhuggeratelieret» (the Sculptor's Studio) — which showed an extraordinary power of imitation of the external reality. In his «Konfirmationsselskab» (Confirmation Party), and that master-piece of colouring, «Frokost» (Breakfast), he depicts the less well-to-do classes in the capital, and has also succeeded in giving a truthful impression of the social surroundings of the people represented. In «Dugurd» (Midday Meal), he represents a cotter's family round the table; while in «Føderaadfolk» the figures are secondary to the interior in which they appear. In «Bondedans» (Peasants Dancing), too, the several figures are rather secondary. Of late years, Wentzel has painted a number of fresh snow-scenes.

EVOLF SOOT (born 1858) is the greatest colourist of this company. His restless imagination, which is always kept down by his will to sober observation, flashes out in warm, glowing colour. The subjects of his pictures are never fantastic. His dramatic «Barnemordersken» (Infanticide) stands alone in his art. With this exception, his pictures are always of every-day subjects — an open door, with two peasants shaking hands, while the artist employs the moment in seeing the sunshine outside sparkling through the crack of the door, in «Et besøg» (A Visit); a couple of children standing gazing at the «Brudefølge som drager forbi» (Bridal Procession Passing), etc. We will further mention his portraits of Jonas Lie and his wife, with its iridescent colour-effect, and of Bjørnstjerne Bjørnson and his wife. The first-named is especially characteristic in the decomposition of the colours, in which Soot's talent for colour has found its means of expression. The light falls in gently and sunlessly; but the colours are seen with an eye that perceives the burning and trembling of the elementary colours in every shade. The colours lie there in little sharp touches side by side, each sparkling by itself, until the picture is looked at from the distance which it is intended to have, when the antagonistic points of colour melt into form, and acquire one tone in which the light ripples and dwells.

HALFDAN STRØM (born 1863) began by practising the picturesque principles of naturalism upon his nearest surroundings, and represented in cold, pessimistic pictures — «Dugurdshvil» (Midday Rest), etc. — small circumstances and daily toil. But later on, when he had been abroad, his art changed its character. It became a glorification of the home, of the wife and mother, of the children, of the house and the nearest spot of earth. At the same time his pictures became bold and cheerful in colour, dashing in execution, and more vigorous in form. We will mention his refined «Dameportræt» (Portrait of a Lady), and the characteristic portrait of the art-historian, Emil Hannover. With this last picture, which is slightly conventionalised in the spirit of antique art, Strøm's naturalistic development is interrupted, and he has gone over to the camp of the youngest generation.

SVEND JØRGENSEN (born 1861) is a true-hearted portrayer of the simple feelings of simple people. His best picture is «Enken» (the Widow) and «Sønnen» (the Son). EIVIND NIELSEN, HELGA



Munthe: The Suitors.

Phot. by Yering.

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS.

REUSCH, SIGNE SCHEEL and INGERID DAHL must also be mentioned among figure-painters.

The number of landscape-painters in this generation is very great. Besides Wentzel, Soot, Strøm and Jørgensen, who have all also painted landscapes, we may mention MARIE TANNÆS, HJERLOW, JENSEN-HJEL, KALLE LØCHEN, TORGERSEN, SINGDAHLSEN, KONGSRUD, KONOW, GEELMUYDEN and the early deceased JØRGEN SØRENSEN. The last-named artist's «Vestre Aker. Februar. 2° kulde» is the most typical landscape that the Norwegian open-air school has produced. Another characteristic picture is AUGUST EIERBAKKE'S «Opdækning for de fremmede» (Preparing for the Strangers) — a typically naturalistic interior.

We will further mention GUNNAR BERG (1863—93), who in his characteristic paintings glorified his native district Nordland, and especially Lofoten.

It is an altogether different spirit that we meet with in the pictures of EDVARD MUNCH (born 1863). He is a peculiar personality, much of a muser, something of a poet. As a painter he is a strong and feeling colourist, in whose art the colours come out with their original strength and with a stirring depth of expression as in no other Norwegian artist. He is also a true line-artist; but the expression of the thought and subject is so much more important to him than the form, that he has always disdained the perfecting of the artistic media. From the very first he met with the most rancorous opposition, but the opposition was always accompanied by admiration, and his art has more and more gained ground.

Even «Det syge barn» (the Sick Child) aroused considerable attention, but was also severely censured for the indifference to detail, and the neglect of naturalistic study. But as a colourist, Munch has reached a height that none but Heyerdahl in a few of his pictures approaches. Of pictures painted in his youth, we will further mention «Vaar» (Spring), and of his later works, «Sommer-nat» (Summer Night) and «Angst» (Terror). Munch's other pictures may be grouped about these. They treat of the same subjects — sickness, sexual desire, and night; and the cry of terror lies behind them all, behind all the varying feelings and sensations of life, like the fundamental feeling that marks the limits of joys and sorrows — terror. In the glaring light of terror, even every-day life has a different appearance. Everything turns to irony, caricature, illusion, as in the visions of a fever patient. They are not

new and surprising thoughts that Munch has interpreted in his art, but he presents them with a personal devotion, a poetic fancy, and a courage that raises his productions above ephemeral art.

Munch is also an excellent portrait-painter, and of late years his ideas have sought in etching and lithography a more appropriate means of expression than painting.

The only painter who has been influenced by Munch's art among his contemporaries, is the talented, but not very productive colourist, FRU ODA KROHG. The others show no trace of his peculiar tendency.

Mention has still to be made of certain artists who, in the course of their artistic development, have become more or less removed from naturalism. This can least be said of the clever figure-painter, JACOB BRATLAND, who only in his later pictures, has sought expression for lyrical feelings that have broken through the form of naturalism. JACOB SØMME is still hesitating between the naturalistic and the conventional forms of expression. FRU LILLY SØMME has revealed a colouristic talent that is distantly related to that of Munch. What direction GUDMUND STENERSEN'S somewhat Protean talent will take, it is difficult to say. In a series of harmonious but somewhat monotonous and weak landscapes, JOHANNES MÜLLER shows a marked lyrical, gently elegiac sensitiveness in his view of nature. TORLEIF STADSKLEIV also, highly talented and rich in possibilities, seems to be approaching the more conventional and formal style. LAARS JORDET is following the same path; like the other young artists he feels himself closely associated with efforts in modern Danish art. THOROLF HOLMBOE is a prominent transition-figure. He began as Gude's pupil, and chose the sea as his special field; but he has always felt himself more and more drawn to the decorative conventional treatment of lines that from England has spread to all lands. Holmboe has done much towards the elevation of our illustrating art. His best works are the illustrations to «Nordlands trompet», and the conventional drawings published under the title of «Sjøfugl» (Sea-birds).

In the nineties we meet with a new generation of Norwegian painters, each with individual talent, but meeting in a reaction against the forms that naturalism has gradually assumed. In the case of most of them, contemporary art has not sufficed as their teacher, and they have felt driven to a thorough study of older art. The old Italian art and the finished Italian landscape have exerted a



Munch: The Sick Child.

Phot. by Vøring.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

special attraction. A number of these artists have followed the Danish school, and have there learnt enthusiasm for old art. The claims of the young artists upon their art are no less considerable than those of the open-air painters. A more harmonious and severe treatment of lines, a more cautious and restrained colouring, and a fuller study of details are requirements that indicate maturity.

The most productive and harmonious of these young artists, HALFDAN EGEDIUS, died at the age of twenty; but he had already, in a number of pictures and in his excellent drawings for Snorre's Royal Sagas, shown that his talent was of the first order. Among his slightly older contemporaries we may mention SEVERIN SEGELCKE, AUGUST JACOBSEN and KARL JOHAN HOLTER. HARALD SOHLBERG made his *début* together with Egedius. We will further mention TH. ERIKSEN, WILH. WETLESEN, OTTO HENNIG, OSCAR GRØNMYRA, SIGMUND SINDING, GABRIEL KIELLAND, W. THORNE, KRISTINE LAACHE THORNE, KRISTOFFER SINDING-LARSEN, SIG. MOE, KAVLI, HINNA, ALFR. HAUGE, JOHANNE BUGGE and EMANUEL VIGELAND.

Most of these artists are still quite young; but when we consider what they and their slightly older fellow-artists have already produced in the way of art that bears evidence of feeling, delight in beauty, and the stamp of personality, we have every reason to hope for a bright future for Norwegian art.

BIBLIOGRAPHY.

- A. AUBERT. *Maleren Professor Dahl*. Kristiania 1893.
 — *Den nordiske Naturfølelse og Professor Dahl*. Kristiania 1894.
 L. DIETRICHSON. *Adolf Tidemand*. Vol. I. II. Kristiania 1878—79.
 — *Af Hans Gudes Liv og Verker*. Kristiania 1899.
 — *Det norske Nationalgaleri, dets tilblivelse og udvikling*. Kristiania 1887.

INDUSTRIAL ARTS AND SCULPTURE

At an early period, the Norwegian people had begun to exercise their in-born artistic sense upon the articles employed in daily life. Even the prehistoric age has bequeathed to us interesting wood-carving, such as the heads of animals upon the viking ship from Gokstad, as well as metal work which is partly, at any rate, of native origin; and the oldest sagas speak of woven pictures. It is indeed chiefly these branches, textile work, metal work, and wood-carving, besides decorative painting that have produced really national forms and types as the foundation for the purely artistic labours of the people.

Textile work is divided naturally into embroideries and woven materials. *Embroidery*, both white and coloured, was long ago executed with much artistic skill. Gorgeous chasubles from later mediæval times exhibit work of a highly artistic character. The national embroidery is still preserved in many parts of the country. The ancient coloured embroidery in wool and silk is most effective.

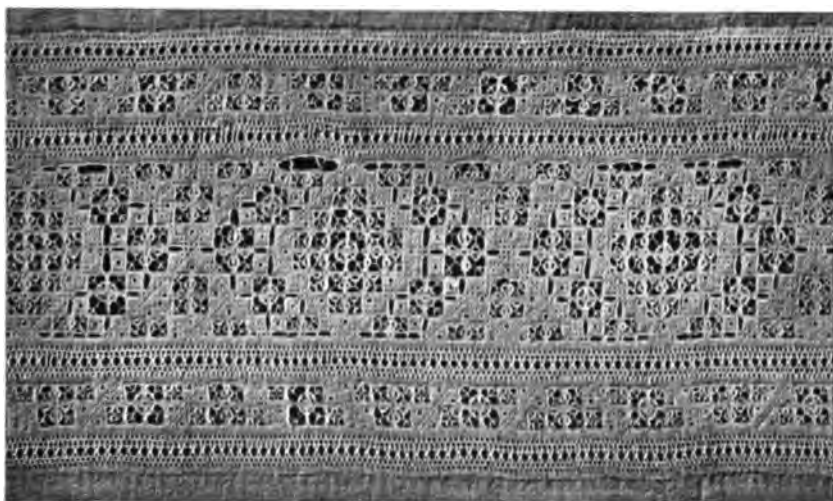
Among our national *woven* articles, the cloths with figures woven upon them occupy an especially prominent position. One cloth (from Baldeshol Church) dates apparently from the 12th century. It represents two of the months in allegorical figures, and is thus a fragment. The figures are woven into romanesque arches, and the entire composition, the dresses and the border consisting of plants and birds, recalls the Bayeux tapestry. With this, probably foreign, exception, our wealth of picture-weavings



Norwegian Woven Cloth.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

begins with the commencement of the 17th century. They generally represent biblical subjects, e.g. Herod's feast with the execution of John the Baptist, the Magi, or the wise and the foolish virgins. The figures are extremely conventional, simple and stiff; the ornament, on the other hand, is excellent, but it is above all the full effect of colouring, and the skill in the execution that make these cloths so valuable. In addition to these, there are other cloths showing greater evidence of foreign influence, less conventional, more resembling Gobelin tapestry, with better executed figures and paler colours.



Norwegian National Embroidery.

Besides the picture cloths, the purely ornamental cloths must be specially mentioned, some with geometrical figures, some with ornament consisting of animals and plants, some in the so-called «flemsvævnad» (Flemish weaving).

The upright loom (opstadgogn) was used for the production of these articles. There is also the so-called «flosvævnad», a kind of knotted work that was formerly done all over the world, but has now been relegated to the more remote districts.

The textile art-industry is carried on in Telemarken, Valdres, Hardanger, Sogn and Gudbrandsdalen. Hardly anything but «aaklæder» (ornamental hangings) are now woven by our peasants, but a great effort is being made to arouse the slumbering faculties.

Work in silver forms the other side of our national art-handicraft. It is more especially the very simple, but effective filigree work that has been done by our peasants — brooches with low-relief ornaments in the form of leaves, or saucers hanging by fine chains from the body of the brooch, and glittering with every movement; double buckles or heart-shaped clasps, intended for fastening the bodice in front; buttons with fine chains; rings, and belts composed of silver plates embossed with ornaments of leaves, etc. The numerous silver-gilt bridal crowns, on the other hand, have been, to some extent at least, made in the towns. Bergen, in particular, early possessed a highly-developed goldsmith's art. Even in our century magnificent brooches, etc. are made in diffe-



Norwegian Buckle.

rent parts of the country, especially in Telemarken; but of late most silver work in national forms is done in the towns.

Our *wood-carving* can show the longest connected development. And the heads of animals on the Gokstad ship exhibit the same sure and bold hand that we admire in our mediæval carvings. Among these, the doorways in our wooden churches (stav churches) occupy the first place. In the earliest ages, these doorways, like the prehistoric productions in wood, stone and metal, gave evidences of Irish influence, the ornament being composed of ribbon festoons and fantastic figures, snakes and four-footed animals. But in the course of the 12th century, the Irish subjects disappear to give place to Anglo-Saxon and Anglo-Norman ornament — festoons of plants, vines twining in rhythmical spirals up the sides of the doorways, and winged dragons. The period of the most characteristic stav churches was about the year 1200. In the course of the 13th century, when Gothic architecture began to exert its influence in Norway, the animal ornaments disappear, and plant orna-



Doorway from Tuft Church.

ment becomes more and more prevalent. A distinct decline commences in the 14th century, and a final flickering up in totally different, southern forms is perceptible about 1400, in the graceful, purely plant ornament on the doorway of Hof Church in Solør.

The figure-designs form a special group among the wooden-church doorways. Combined with the usual ornaments, they sometimes represent Bible scenes, sometimes — and principally — take their subjects from Volsung and Niflung sagas. The figures are always clumsy, and stand on an incomparably lower level than the ornament; but the representation is vigorous, and worked exceedingly well into the ornament. Upon the church doorways followed the carved door-posts in the peasants' houses, continually deteriorating in point of execution, during the 13th, 14th and 15th centuries.

A new source for our peasant decorative art was opened up at the beginning of the 17th century, by the connection with North Germany, in the so-called «Kerbschnitt». From this time dates the beginning of the production — after Frisian patterns — of the numerous mangling-boards, whose ornamentation consists exclusively of circles and arcs of circles, executed with a wedge-shaped tool, and adorned with small, toothed, wedge-shaped ornaments, put together in the most varied forms.

The national wood-carving continues its course onward from the mediæval forms in which the Romanesque style with its strictly conventional lines prevailed. These forms continue through all our later wood-carving, even when it is transformed by the entirely changed feeling for form of modern times, especially the Rococo. This Romanesque influence is not only apparent in the chairs from Setesdalen and Telemarken, in beer-jugs and tankards, but may also be traced in the so-called «krølleskurd», the flourishes with which especially the peasants about the Dovre district in the 18th century adorned their household goods, buildings and altar frames, in the twining shell-like shapes of the Rococo, combined with a superficial treatment of leaves.

At the same time the representation of figures as early as the middle of the 17th century, had its numerous and not untalented votaries among our peasants. Their earliest productions in figure-sculpture in wood and ivory found their way into the art-museum of the Danish kings, and are now in the collection at Rosenborg, and in the museum of Scandinavian antiquities in Copenhagen.



Doorway from Hyllestad Church.

The series commences with HALVOR FANDEN's (about 1650) two representations of Norwegian peasants, and several drinking-mugs adorned with mythological and allegorical reliefs, all rather roughly executed, and possibly to some extent copied from Netherland prints. MAGNUS ELISEN BERG (1666—1739), a carver in ivory, stands far above his contemporaries in this species of art, with his excellent reliefs, representing scenes from sacred history, mythology and allegory (Rosenborg Palace, the historical art museum in Vienna, and the royal collections in England). He stands at the summit of the art of his time, and together with his age, has a leaning towards Rococo. His goblets with ivory reliefs are among the most beautiful ivory work of all ages. JAKOB KLUKSTAD (d. 1773)



Modern Wood-carving.

seems to have been more influenced by the old national wood-carving art. He carved the pulpit and altar-piece in Lesje Church with rich and beautiful «krølleskurd». In Valdres, EYSTEIN GUTORMSEN KJØBEN (circ. 1800) carved the remarkable altar-piece in Hegge Church, representing the Crucifixion, in numerous detached figures. The series of wood-carvers is continued down to our own time with men such as OLE MOENE from Opdal, LARS KINSERVIK from Hardanger, LINSØ from the Dovre district, and HYLLAND from Telemarken, who have all confined themselves to the carving of ornament in the traditional style, in which they have attained a high degree of perfection.

It is this same inborn, traditionally-confirmed genius for the artistic treatment of wood that has also been the starting-point for the Norwegian sculptural art of our day. In this has lain both

its strength and its limitation, its strength, because this certainty in the ornamental treatment of wood forms a good, firm starting-point for further artistic training; its limitation, because it is a long time before the artists trained upon this basis can entirely shake off tradition, and turn from the ornamental which is their strong point, to the free representation of the human figure, which is the chief domain of sculpture. All our earlier, peasant-born sculptors have been far more talented as ornament-carvers than as sculptors, and have therefore often had a hard fight to assert themselves in the foreign domain, and in strange conditions.



Magnus Berg: The Shepherds Worshipping Christ.

The series of our century's Norwegian sculptors begins with HANS MICHELSEN (1789—1859), who struggled all his life with hard circumstances. As a soldier, he attracted the attention of his superiors by his wood-carving, and from 1819 to 1826, he received annual aid which enabled him to study in Rome under Thorvaldsen. After his return in 1826 to Norway, his circumstances became continually more straitened, so that he at last thought of giving up his artistic career, and returning to his native parish, when warm-hearted men, though too late, helped the old sculptor to obtain some orders. His chief works are the figures of the 12 apostles in Trondhjem Cathedral, executed by order of King Carl Johan.

The second generation is represented by sculptors such as CHRISTOPHER BORCH (1817—1896), JULIUS OLAVUS MIDDELTHUN (1820—1886), HANS HANSEN (1821—1858) and OLAF OLAFSEN GLOSIMODT (born 1821, living in Copenhagen). Borch has executed, among other things, a statue of Christie, president of the first Storting, which



Middelthun: Bust of Welhaven. Phot. by Væring.

stands in the Bergen market-place. He was more successful, however, in the execution of genre figures. — Middelthun was the most refined, though not the most powerful genius among Norwegian sculptors. An extraordinarily severe self-criticism hindered, to some extent, his power of production, but on the other hand, gave to his work a rare finish. His busts, especially those of Welhaven and Fritzner,



Sinding: Barbarian Mother.

Phot. by Væring.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS

are remarkable for their refined and striking characterisation. Among the busts and statues in public squares, he has executed those of Halfdan Kjerulf in Kristiania, and Schweigaard in Kragerø, and also Schweigaard's statue in front of the University in Kristiania. The last-mentioned is remarkable for its noble bearing,



Bergslien: The Boy's Dream. Phot by Væring.

and is a striking image of the rare personality it represents, although modern requirements with regard to the naturalistic treatment of the material, may not be altogether satisfied. Middelthun's Baptism Angel in Trefoldigheds Church in Kristiania may also be mentioned. — Hansen's circumstances were so wretched that his productions were very few — a few busts and statuettes. He stands like a broken torso in the history of our art.

— Glosimodt has executed a number of busts of famous Norwegians, a *statue* (the «Sæter-girl»), etc.; but it is more especially his excellent work in box-wood and ivory, and perhaps above all his ornamental work, that entitle him to one of the foremost places in the ranks of our wood-carvers.

In the third generation of our sculptors, we class BREYNJULF BERGSLIEN (1830—1898), HANS BUDAL (1830—1879), OLE HENRIKSEN FLADAGER (1831—1871) and CARL LUDVIG JACOBSEN (born 1835). Bergslien belonged to a peasant-family famous for its artistic abilities. In 1853 he went to Copenhagen, and there executed in marble several of Thorvaldsen's works for the museum. In 1868 he was victorious in the competition for the sketch for the equestrian statue of Carl Johan in front of the palace in Kristiania. The excellent manner in which this statue was executed, led to his being entrusted with the execution of Henrik Wergeland's statue in Kristiania, which, however, was not quite so satisfactory. Bergslien has also executed several busts of famous Norwegians, as well as a number of important decorative works. A bold and vigorous vitality distinguishes his productions, and indicates an undivided personality of natural growth, combined with some of the fire and ardour of an improvisatore, and with some of his lack of ability to go on developing by reflection during execution. — Budal and Fladager both lived in very poor circumstances. Budal, as far as independent work goes, has only produced a few genre works, while Fladager, who was highly gifted as a designer of ornament and a wood-carver, executed an angel font for Vor Frelser's Church in Kristiania, a «Theseus Finding his Father's Sword», and a number of good busts. — Jacobsen's *chef-d'œuvre* is a bronze monument of Christian IV upon the market-place in Kristiania. Although the attitude of this statue to some extent recalls Fogelberg's Gustaf Adolf at Göteborg, yet, like Jacobsen's other works, it shows evidence throughout of a care and affection, which give expressiveness and confidence.

In the next generation of Norwegian sculptors, interest mainly attaches to the two names, Stephan Sinding (born 1846) and Matthias Skeibrok (1851—1896).

SINDING must certainly be characterised as the most productive and gifted of all Norwegian sculptors. In Berlin he executed his «Vaulundr», and at the Paris Exhibition of 1878, his «Captif» made a considerable impression by the grandeur of its conception.



Skelbrok: Tired.

Phot. by Vøring.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATION



Vigeland: Inferno.

Phot. by Væring.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.

At the same time, he executed a bas-relief for the Kristiania Palace, «Carl Johan Laying the Foundation Stone of the Palace». Towards the close of the seventies, he went to Rome, and there executed his splendid »Barbarian Mother», a woman carrying her dead son out of the battle (in marble in the Glyptotheca Ny-Carlsberg in Copenhagen, and in the Sculptural Museum in Kristiania). About 1883, the sculptor settled in Copenhagen, and there executed, among other things, an equestrian frieze for Jacobsen's Glyptotheca. He then set to work upon his «Captive Mother», and soon after applied himself to a larger composition: «Two Human Beings», a fervent and expressive love-poem in bronze. In the Glyptotheca Ny-Carlsberg, there is also an interesting sculpture in wood — the «Eldest of the Family» — a peculiar mixture of conventional archaism in the drapery, and clear naturalism in the naked portions. Finally, Sinding has executed statues of Bjørnson and Ibsen, and Laura Gundersen, the actress, for the National Theatre in Kristiania. In Sinding's works, there is a breath of fresh energy and natural vigour, that give a sense of freedom.

SKEIBROK began in 1871 as a wood-carver, but soon aroused well-merited attention by his busts of Michael Sars, Edvard Grieg, and the Icelandic thinker, Magnus Eirikson. In 1878, he exhibited in Paris his «Ragnar Lodbrok in the Snake-pit», now in the Sculptural Museum in Kristiania. He executed for the Kristiania Palace «Oscar II Unveiling the Statue of Carl Johan». His «Mother Waking», in the National Gallery, shows delicate feeling. He then executed his «Snorre Sturlason», as a silver-wedding present for the King and Queen. In Paris he executed «Tired», a servant-maid, fallen asleep from weariness, a figure full of feeling and truth. After having executed «An Outlaw», and a number of busts, he received an order in 1886 for a group for the tympanum on the façade of the centre building of the University — «Athene endowing the Man that Prometheus has made with a Soul» — a work in true classic spirit and style.

Among the contemporaries of Sinding and Skeibrok may be mentioned SØREN LEXOW-HANSEN, whose effective «Vala» in bronze is the property of the National Gallery; OSCAR CASTBERG, whose bust of Heltberg, principal of a renowned School in Kristiania, is also in the same collection; JOHANNA SINDING, sister of the sculptor, and CHRISTIAN DAAE MAGELSEN.

To these must be added a number of younger sculptors, whose career has either been so early interrupted that the buds so rich in promise have had no opportunity of unfolding (JAKOB FJELDE, HALFDAN HEERTZBERG, SKEPTE), or they are still developing so rapidly that their history cannot yet be written, e.g. the imaginative GUSTAV VIGELAND, whose bronze relief, the «Inferno», belongs to the Sculptural Museum in Kristiania; VISDAL, UTNE, SVOR, AMBROSIA TØNNESEN, UTSOND, and ENDER, whose statue of Tordenskjold is to adorn the square that bears that hero's name in the capital of Norway.

BIBLIOGRAPHY.

- L. DIETRICHSON. *Norsk Træskjærerkunst*. Kristiania 1878.
H. GROSCHE. *Kunstindustrimuseum. Kristiania. En Fører gennem dets Samlinger*. Kristiania 1892.
— *Gamle norske Tæpper*. Berlin 1889.
-

ARCHITECTURE

THE oldest buildings now in existence in Norway, are to be found among the *churches*, as these took the place of the heathen «hov» *) on the introduction of Christianity in the 10th and 11th centuries. These hov appear without exception to have been burnt to make room for churches. They were of wood, and the same material seems also to some extent to have been employed in the oldest churches. The characteristic form was the Irish-Scandinavian from the later iron age, and richly ornamented.

It is not easy to determine which of the extremely simple churches of rough-hewn stone, churches without side-aisles, with narrow sanctuaries, of which many are still to be found, date from the early part of the 11th century.

As soon as the Norman Romanesque architecture in the middle of the 11th century had assumed permanent forms in Northern France and England, it appears at a corresponding stage in Norway. The stone churches erected in Trondhjem by the kings Harald Haardraade and Olav Kyrre, and which each in turn sheltered the shrine of the national saint, St. Olav, appear especially to have belonged to this first Norman group. This close association with England and Northern France is evident in all our mediæval architecture, while Sweden, and still more Denmark, were more closely associated with Germany.

Two different types of stone architecture were soon developed on Norwegian soil, that of the south country, and that of the north and west country. At the same time, the ecclesiastical

*) «Hov» was the common name of the heathen temples in Scandinavia.

wooden architecture underwent a more independent national development, although its forms, in the main, are based upon the Norman forms.

The larger east-country stone churches generally have the basilica form, with arches supported by great circular columns with simple square or bell-shaped capitals. The aisles are very narrow, the chancel rectangular and of about the same width as the nave. The east end generally terminates in a projecting apse. A central tower, often of considerable height, is raised above the centre bay, while as a rule there is no west tower or transepts. There are small semicircular-headed windows in the side walls. The chief source of light is the comparatively large window in the west gable, its position in most cases indicating that the church has had an open roof. There is no triforium. The chancel arch, as in all the Norman Romanesque churches in Norway, is very narrow. The eaves project beyond both the gables and the walls, a construction well suited to the climatic conditions; and the strong and often richly ornamented barge-boards satisfy the æsthetic sense.

The smaller churches consisted simply of a nave, sometimes with, sometimes without an apse, and as a rule without a tower.

What chiefly distinguishes the west and north country group from the south and east, is, in the first place, the richer and more varied treatment of detail. The general arrangement is further distinguished from the other group in the fact that even large churches with a breadth of as much as 40 ft., are built without aisles, and roofed with a bold and beautifully constructed timber roof. A west tower frequently takes the place of the centre tower, but generally there is neither. Vaulting seldom occurs. Before 1150, the basilica form seems to have been employed only in the cathedrals. Of these the only one remaining is St. Swithin's Church at Stavanger.

In the treatment of interior detail, this church presents a striking resemblance to the Knights' Hall in Rochester Castle, built at about the same time. The work of building has probably been superintended by the first bishop of Stavanger, Reinald, who had been a canon in Winchester Cathedral. The church has no transepts, triforium or central tower, but had a tower at the west end. The arches are supported by great circular columns. The older portion of the nave has a timber roof.



St. Swithin's Church.



Interior of St. Swithin's Church.

Here, as almost everywhere else in Europe, from the middle of the 12th to the end of the 13th century, architecture passed through a period of rapid development, which culminated with the completion of Nidaros Cathedral's lofty vaultings.

The first great steps in the new direction are apparent in Hamar Cathedral, founded in 1152 by Nicholas Breakspeare. Its original plan was partially altered in the Gothic period by the enlargement of the choir. But from the ruins and old descrip-



St. Mary's Church.

tions, it is possible to reconstruct the plan of a regular basilica with transepts, centre tower, two large west towers, and probably originally with a quadrangular termination to the choir. The arches of the nave are of semicircular form with square recesses and supported by comparatively slender round columns. In spite of the fuller development, the east-country tendency still makes itself felt here in a certain poorness and simplicity in the treatment of detail.

The scanty ruins of St. Olav's abbey church at Tønsberg are the only remains in Norway of the round churches of the

12th century that are so common in Denmark and southern Sweden.

In the buildings of the west and north country, the chancel generally terminates squarely, and apses become less and less frequent the farther north we go.

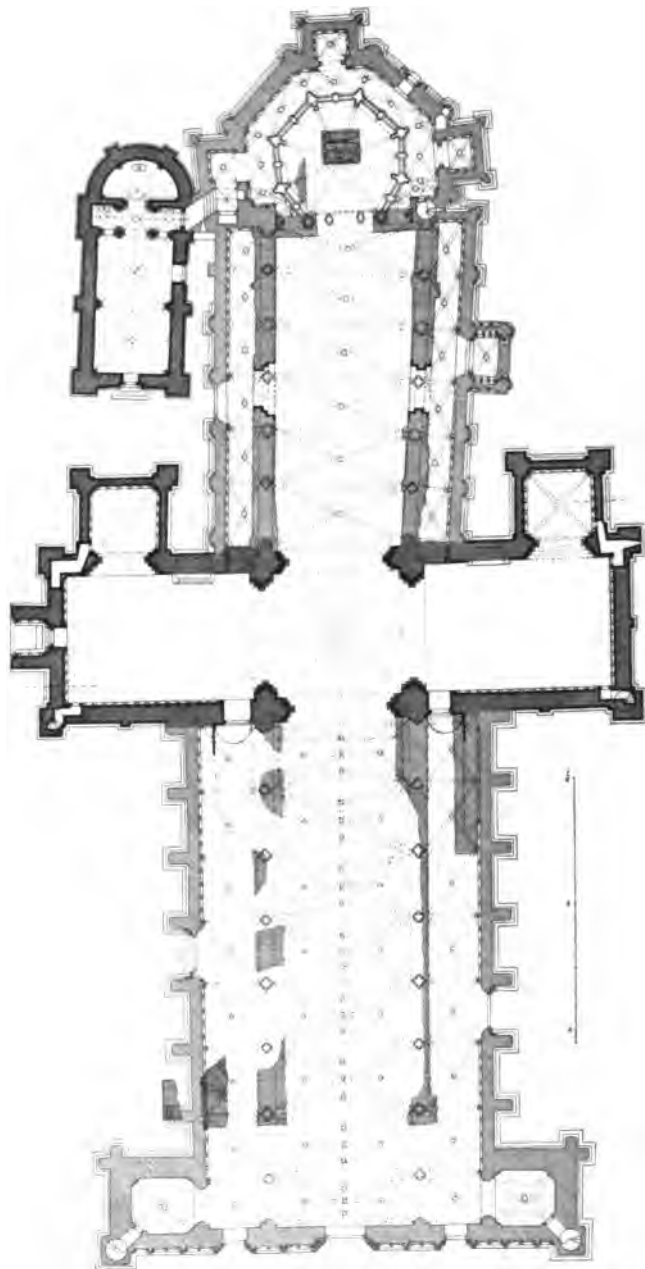
Of all the churches that were built at this time in Bergen, only the nave, towers and westernmost bay of the choir of St. Mary's Church are left. This is the only basilica existing in



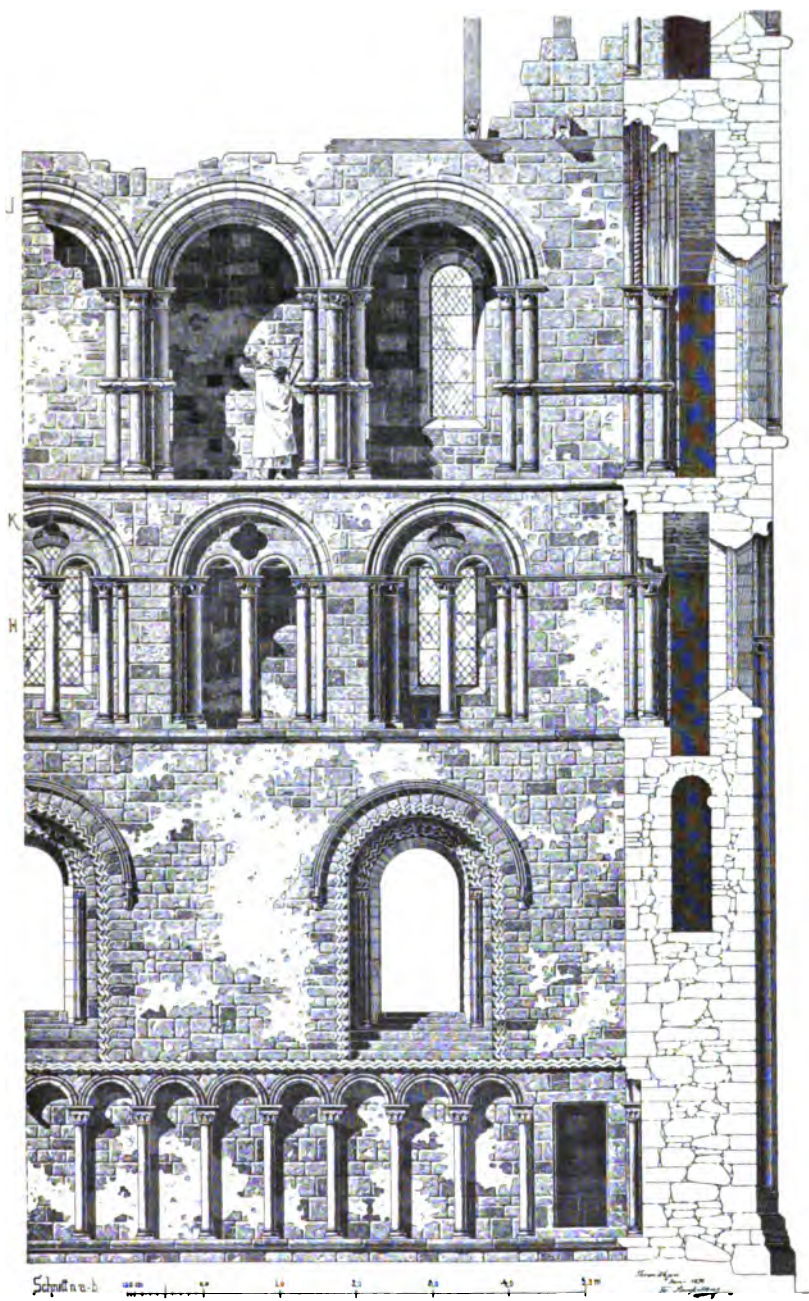
Trondhjem Cathedral.

Norway with nave and aisles, that has square pillars; it has two west towers, and gives evidence throughout rather of northern French, than of English influence. The choir was enlarged in the first half of the 13th century by two eastern bays in fine Gothic with lancet lights. Among other west-country churches belonging to this period, may be named the beautiful aisleless buildings at Talgø in Ryfylke, and Hove in Sogn.

The late Norman style represented in Trondhjem and the Trondhjem district is without doubt the richest.



Groundplan of Trondhjem Cathedral.



Trondhjem Cathedral. Interior of the transept.

Here, at the establishment of the archbishopric in 1152, stood Olav Kyrre's Christ Church, which was not calculated to satisfy the special requirements of a metropolitan church, and therefore underwent thorough alterations.

Archbishop Eystein (1160—1188) was especially active in this work. In 1180, for political reasons, he was obliged to flee to England. Just at that time, the choir of Canterbury Cathedral was being rebuilt by William of Sens and William the Englishman, with the pointed arch and an exceedingly beautiful expression of form, which was the introduction of the Early English style. The east end of the cathedral terminates in the horse-shoe-formed St. Thomas's corona, which was probably the model for the octagon in Trondhjem.

Evidently with fresh impressions from England, Eystein determined, on his return in 1183, to rebuild the choir of Christ Church. Only the lower part of it, and of the octagon at the east end with its aisle and chapels, show Eystein's transition style. The upper parts are fully developed early Gothic, and the arch in front of the octagon has traceries characteristic of the 14th century. The roof of the aisleless transept is open, while the choir was covered with richly ornamented cross-vaulting. The chapter-house, north of the choir, must have been erected before 1179. The material used throughout the church is soapstone, the beautiful green shade in its colour being brought out by the employment everywhere of white marble pillars.

The extreme readiness with which soapstone lends itself to the carver's art, has called forth the luxuriance of detail of which the illustrations give examples.

As will be seen from the ground-plan, the cathedral is a central-towered cruciform church. In size it equals those of medium size in England, although the breadth and height are comparatively greater, and the length comparatively less than is usual in England. (Length 325 ft., greatest span, 32 ft. [west nave].)

Both in this and in our other stone buildings, there are many peculiarities in detail, that point to a native development of style in the 12th, and still more the 13th century.

Closely connected with the late Norman tendency in Trondhjem, there are a number of interesting aisleless parish churches in the district round, all of the customary shape, with square-

ending chancel, and generally resembling Vernes Church in Størdalen, though this is a little older.

During the period from Sverre's death in 1202, until Haakon IV's absolute sovereignty in 1240, artistic energies appear to have flagged. But from 1240 to about 1320 is the flourishing period of Gothic architecture in Norway as in England. The treatment of form became lavish and lighter. The pointed arch, bell-shaped capitals with round abacus, and beautifully and firmly modelled foliage and deep mouldings appeared. The windows are either lancet-shaped or traceried. The east end, with some few exceptions, is square. Cross-vaulting is employed in churches of more elaborate design, the open roof in those of simpler style.



From Trondhjem Cathedral.

In the east country, comparatively little was built in the Gothic period, and only a few churches have been to some extent preserved, for instance, Stange Church.

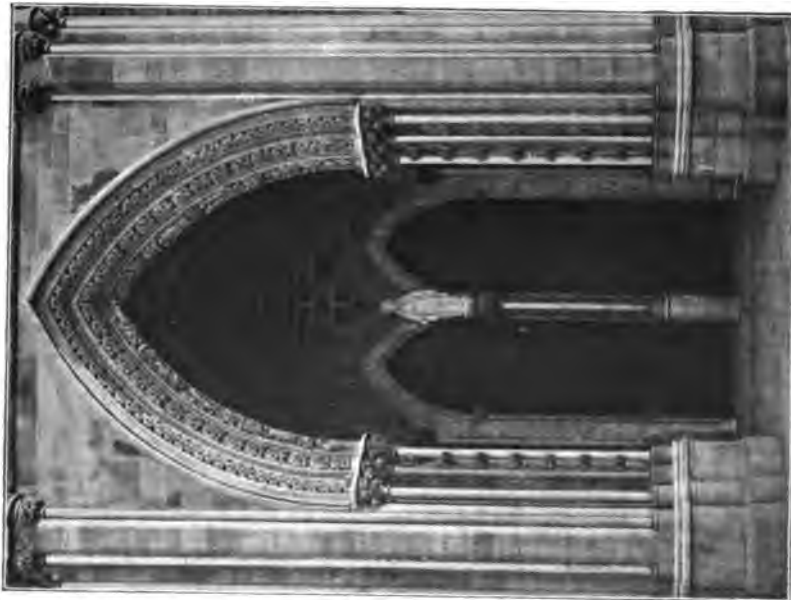
After 1272, the splendid choir in Stavanger Cathedral was erected, and the bishop's chapel; and in the neighbourhood, Utstein Abbey.

Bergen was at this time Norway's principal town, and here a number of important buildings arose under the direct supervision of Haakon IV and Magnus Lagabøter. All that is now left of



From Trondhjem Cathedral.





From Trondhjem Cathedral.

these, however, is the choir of St. Mary's Church, and St. Olav's Church in Vaagsbunden (the cathedral). In Magnus Lagabøter's time, several important parish churches without aisles were erected in the Bergen diocese, among them being Vossevangen Church with its interesting tower.

From 1248, the building of the nave of Trondhjem Cathedral (Christ Church) was carried on by Archbishop Sigurd Eindrison, and was probably completed at about the close of the century. Of this, after the numerous fires that have taken place, there now remain only the walls of the aisles, and a part of the west front and of the west towers, of the same height.

After 1320, few stone churches were built in Norway, and late Gothic buildings with architectural decoration are not to be found here.

From the 16th century, after the Reformation, national art, on the whole, remains at a primitive standpoint, although with a certain amount of movement, and in touch with the outside world. Many of our churches show interesting interior work and paintings from that period, and in the towns large brick churches were erected here and there of simple, but good style.

In addition to the stone architecture, belonging principally to the towns, or originating in them, and, as already pointed out, keeping pace in its development, step by step, with the architecture of Western Europe, the *wooden church architecture* goes its own way. The construction of the small churches is in the Romanesque style, both as regards the main lines, and in all ornamental embellishment. The oldest of all still show the Irish-Scandinavian ornament as it is usually found in the later iron age. It would thus appear that our wooden churches may to some extent be referred to the Irish or Anglo-Saxon period of architecture.

The constructive principle, of the «stav» building, namely the vertical position of the timbers, is essentially the same in all these wooden churches, but probably the oldest designs were all without side-aisles, with a lower, square sanctuary, and without towers. Not until the 12th century was the basilica form adapted to wood, and buildings raised that are remarkable both from an artistic and a constructive point of view.

Immediately above the semicircular arcade in the older churches (e.g. Urnes), rises the plank wall of the clerestory, with its



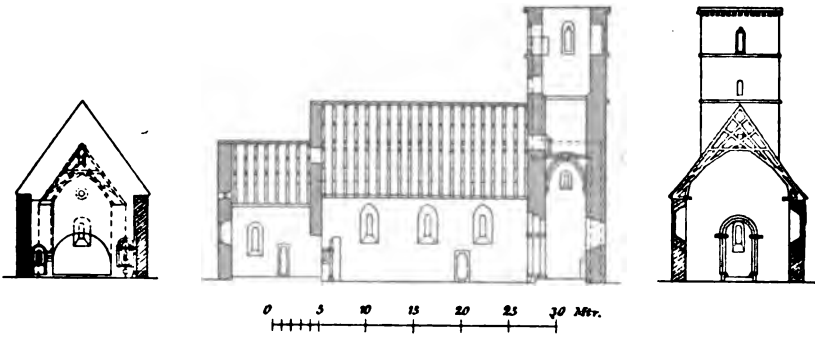
Vossevangen Church. 34



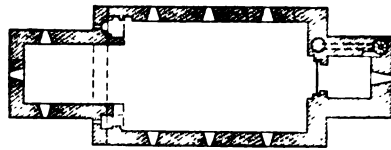
Stange Church. 35

Vossevangen Church.

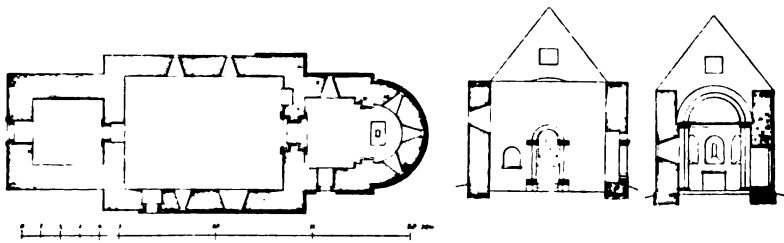
Stange Church.



0 5 10 15 20 25 30 Mtr.



Vernes Church.



Hove Church.

circular, or later, triangular lights. In the later churches, a floorless triforium makes its appearance, consisting of horizontal beams, St. Andrew's crosses, and semicircular arches.

The doorways of the nave are richly ornamented. The jamb is covered with a deeply carved, though as surface decoration correctly conceived, ornamentation of Romanesque dragons and vine tendrils. Occasionally they represent scenes from Germanic legends (Sigurd Favnesbane) or Scripture.



Borgund Church.

Whereas the elaborate plan of construction in all essentials remained unchanged throughout the latter part of the 12th, and the 13th century, the ornament exhibits a regularly progressive development.

The chief qualifications for the durability of these buildings were that the foundation timbers, and the more important structural points should be most carefully protected from damp. The roof was therefore very steep and projected over the low walls, and for the same reason, not only the roof surfaces, but often all the external corner timbers were covered with shingles or tiles, and

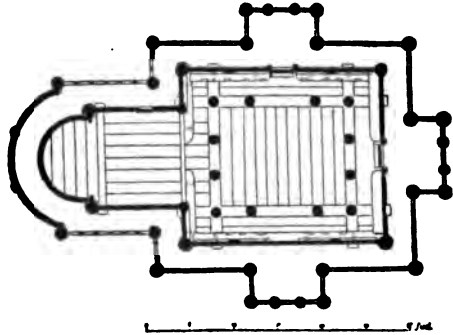
even the walls themselves were sometimes covered with thick deal shingles, beautifully cut out, and carefully laid on.

The main purpose of the outside covered passage was to protect the lower part of the walls, and it generally runs round the entire building. With its porches and miniature galleries, it greatly increases the æsthetic effect of the «stav» church.

The carved ridge-piece of the church generally terminates in fantastic dragons' heads, projecting far beyond the gables; and the bargecourses of the roof are protected by barge-boards that are often highly ornamental.

The bells were generally placed in detached steeples (Borgund, Hiterdal).

The Norman Romanesque style remained predominant in the Norwegian wooden architecture of the middle ages. The pointed arch and the pointed trefoil arches are only met with here and there from the end of the 13th century. A new mode of construction, on the other hand, appears at this time, the superstructure of comparatively large churches without aisles being supported, and their walls strengthened, by a central column.



Plan of Borgund Church.

More than twenty of these stav churches from the 11th to the 14th century are still standing, the greater number in the mountain districts and in Sogn.

A decline in church architecture, as also in the closely-allied art of wood-carving, is already visible in the latter half of the 13th century, and «stav» was not employed in the construction of the principal parts of churches after the Reformation. These were now constructed of timber laid horizontally, the larger ones as cruciform churches without side-aisles, and with a central tower. By their good proportions and solid work, and often also by their interior decoration, beautifully executed in the form and colour harmony characteristic of the age, these buildings of the 17th and 18th centuries are subjects of considerable interest.

The Norwegian *non-ecclesiastical architecture* has partly employed stone, partly wood for its buildings. Masonry was used chiefly for bishops' palaces and convents and for royal castles, while only wood was used for houses in the country, and generally in the towns also. The only monastery that has been to some extent preserved is that of St. Laurence at Utstein, north of Stavanger. The design here, as well as that evident in ruins elsewhere, is on the ordinary European plan.

Interesting and fairly well preserved portions of the archbishop's palace in Trondhjem, and some remains of the bishop's palaces in Stavanger, Oslo and Hamar still exist.

Among remains of royal castles, some from the 13th century must be especially mentioned.



Rosenkranz Tower.

Castle of Bergen.

Haakons Hall.

The parts of the castle of Bergen (now Bergenhus) still remaining are Haakon's Hall, the Rosenkranz Tower, and parts of the circular wall. Haakon's Hall has recently been restored. It was built between 1247 and 1261, of quarry stone with quoins and beautiful details of soapstone. The lowest story is a low, dark basement with a ceiling supported by a succession of beams, above this a cross-vaulted undercroft, with 3 rooms, and above these again, the great hall which occupies the entire area of the building, and measures inside 107 feet by 42 feet, the height of the walls being 23 feet. The roof was an open rafter-roof. Only the lower part of the great tower to the south of the hall belongs to this period; the other stories were built by Erik Rosenkrantz, 1560 to 1565.

While Bergenhus was designed principally for a royal palace, Akershus (at Kristiania) was at first (Haakon V, circ. 1290) a

fortress. It has been added to and altered time after time, and acquired its present general appearance in the time of Christian IV.

The ruins of Magnus Lagabøter's castle on Slotsbjerget, near Tønsberg, are of special interest. The castle was built entirely of brick, and richly ornamented with moulded and glazed tiles, and with a highly plastic ornament. As it is quite evident that the brick was produced at the brick-fields to the north of Slotsbjerget, it shows that by the close of the 13th century, brick-making had developed in Norway as in the rest of Europe.

But the remarkable decline in the economic condition of the country in the 14th century, also resulted in the cessation of activity in this department. There is, however, a large castle on Stenviksholm, near Trondhjem, built by Olav Engelbrektsen (1523—36), the last Catholic archbishop. Its ruins have lately been uncovered.

In the 17th and 18th centuries, especially in the newly-founded Kristiania, a considerable number of brick buildings were erected of imported brick, and give evidence of mechanical skill, and to some extent also, especially in their interior decoration, of artistic feeling.

The ordinary *country houses* were originally designed in the form of a number of small buildings surrounding a yard, almost every one of the rooms necessary for the working of the farm being an independent, and often separate, building (cf. page 326). The buildings are always of wood, and the roofs are still frequently covered with turf. Where a more ornamental style is employed, the form, in the case of the older buildings, corresponds with that of the stav churches. The round and trefoil arches, etc. of the Norman Romanesque style appear, while Gothic forms are seldom met with.

The later buildings, on the other hand, especially from the 17th and 18th centuries display the Renaissance and Rococo styles, often in an intelligent and original adaptation according to the material and nature of the building.

The dwelling-room had an open roof, in the middle of which was the smoke-hole. This could be closed from below with a close-fitting shutter. There were originally no windows.

Immediately below the smoke-hole was the hearth (aren). Legend relates that Olav Kyrre had the hearth-stone replaced by stoves, undoubtedly the so-called smoke-stoves, that are still to

be found here and there in the west country — a kind of primitive open fire-place without a chimney, placed in a corner. The smoke poured out of the upper part of the stove into the room, and found its way out through the smoke-hole. Not until after the Reformation does the open hearth with chimney appear to have been general in the country districts. In connection with the last-named kind of fire-place, windows were introduced, and the ceiling which, on account of the smoke-hole, had hitherto been a raftered roof, was now, at any rate in the east country, built of horizontal beams.

The oldest houses in preservation, among them Raulandsstuen from Numedal (probably from the 13th century, now standing on the Folkemuseet's property on Bygdø), contain one large room and two smaller ones. Not until much later have there been any signs of an endeavour to make a more convenient combination of the rooms, the dwelling-houses, however, being always kept separate from the outhouses.

The older dwelling-rooms were all arranged on one plan (to some extent with local peculiarities), with the high-seat, table, corner cupboard, etc. always in the same place. Frequently it is all worked together in form and treatment of colour into a harmonious whole, enclosed within richly-coloured walls and ceilings: and the national art-industry unfolded in the ornamentation of the houses, has borne fruit, especially of late years, in art and craft. Both inside and outside, the massive timbers of the walls are visible, with their cross-joints at the corners, and the projecting ends of the logs, cut in a bold curvature from the foundation to the eaves. Upon this corbel, the roof juts far out over the gables.

These one-storied dwelling-houses, with their low, verdant, turf roof above the nut-brown, log walls, are often remarkable for their good proportions; and the comparatively highly decorated verandah, still existing here and there, heightens the picturesque effect. The outlines of the gables are thrown into relief and protected by broad barge-boards, often richly carved.

Entirely developed, two-storied houses with chimneys and iron stoves make their appearance in the country in the 18th century.

The store-houses (cf. page 328), on the other hand, were built in two floors as early as the 11th century, generally with one room on each floor. The lower floor is the store-room for provisions, and to protect these from damp and vermin, the house is

generally raised upon blocks, sometimes of stone, but generally of great pine-trunks. The second story serves as a wardrobe, and also often affords sleeping accommodation. There is no fireplace in the store-houses.

The upper floor is generally surrounded by a covered passage which is supported on the boldly-cut ends of the projecting logs at the corners, and on the projecting beams of the floor. It



Old Norwegian House.

is almost always built of vertical timbers, with massive corner pillars.

While in the dwelling-houses the decoration is principally inside, the store-house is apparently intended to testify to the pecuniary ability of the owner outside, and its exterior is therefore often most richly decorated.

Some of these store-houses seem to be of the same age as the stav churches.

The stables and cow-sheds of the farm are always of logs, while the granaries and hay-lofts are generally constructed in the form of a framework of beams with a boarding of battens.

The Norwegian architecture of the present day is principally of a cosmopolitan nature. The taste for solid materials has lately gained ground in the larger towns, and especially in the central districts of Kristiania, the beautiful Norwegian stones such as granite, labradorite, soapstone and marble being largely employed, and sometimes in good forms.

In wooden architecture, a national style has developed from the study of our old buildings. It is principally seen in the villas in the suburbs of the towns, and in several of our country hotels and sanatoriums.

BIBLIOGRAPHY.

- Aarsberetning fra Foreningen til norske Fortidsmindemerkens Bevaring.* Kristiania. (Yearly).
- L. DIETRICHSON. *De norske Stavkirker.* Kristiania 1891—92.
- und H. MUNTHE. *Die Holzbaukunst Norwegens.* Kristiania 1893.
- O. KREFTING. *Om Throndhjems Domkirke.* Trondhjem 1899.
- P. A. MUNCH. *Throndhjems Domkirke.* Kristiania 1859.
- N. NICOLAYSEN. *Norske Bygninger fra Fortiden.* Kristiania 1860—80.
- *Norske fornlevninger.* Kristiania 1862—1866.
- H. SCHIRMER. *Kristkirken i Nidaros.* Kristiania 1885.
- E. SUNDT. *Om Bygningskikkiken paa Landet i Norge.* Kristiania 1862.
-

MUSIC

THE Norwegian people are not perhaps a singing people to the same extent as many other European nations.

The mighty ocean that beats upon the shore, the dark fjords with their overhanging cliffs, the noisy waterfalls, the miles of blue-green pine and fir, the endless wastes of mountain and ice with the crackling flames of the northern lights, the long night of winter — all the Titanic force with which Nature has endowed the country, casts a shadow of sadness and melancholy over the people. Their lips do not open so readily for song as in a land where the southern sun creates an eternal spring.

But the people nevertheless possess greater musical feeling and lyric power than perhaps the majority of the other nations in Europe. Their national music is admirable for its original force and ever-varying moods, which reflect, as in a kaleidoscope, their warm, deep feeling.

And the strongly national character of this music is all the fresher and purer from the fact that the ordinary general European culture, which is the foe of all national peculiarities, has only succeeded very slowly in finding its way into the many remote valleys and mountain districts, and breaking their special traditions.

But for this reason the nation began all too late to collect the wealth of poetry and music that had lain hidden for centuries among the people. The work was only begun after great treasures had been washed away by the ephemeral culture of the towns.

The credit of having contributed most towards the preservation of the Norwegian national music, is due first of all to the organist, L. M. LINDEMAN (1812—1887), who, with all his modesty,

was one of the most eminent representatives of Norwegian musical art, the greatest theorist and contrapuntist in the land, and a highly esteemed composer of church music. Beginning in 1848, he collected many hundred national ballads, songs, dances and hymns, and by his works has raised himself a *monumentum ære perennius*. During the last few years, C. ELLING has continued Lindeman's work in collecting Norwegian national music.

There is in this music an infinity of varying moods, rhythms and colours. Every one of the harp-strings is tuned. They sing of heroic exploits in heathen ages, of the kings and warriors of the middle ages, of the beautiful *huldre*, of the *draug* who presages the destruction of the fishermen, of the brownie and the water-sprite. There are also love-songs so deep and ardent that they have few equals, sarcastic comic songs, and children's songs as pure and innocent as the sleeping child itself.

The most famous of the old mythical songs is the visionary legend, «*Draumkvædi*» (Dream-song).

One very characteristic and impressive kind of popular poetry and music is the so-called *stev*, a little four-lined stanza of most varied substance, now coarse ridicule and grotesque humour, now warm, intense feeling. Among the *stevs* are many of the pearls of Norwegian music. The *stev* is frequently used in the mountain districts for social entertainment at the drinking-table, in the form of alternate singing — a duel in song.

All through the Norwegian music, there runs a strong undercurrent of affecting, sad melancholy. The scenery and the feeling of the people have struck this chord, which rings out even in songs where one would expect a joyous flourish of trumpets.

The Norwegian *national dances*, in their melodies and rhythm, have a natural and bold character, which gives them considerable musical worth. The principal are the *halling*, a solo dance with wild evolutions and vigorous kicks at the rafters of the room, and the *springar*, a dance for two, with no less vigorous evolutions and gyrations.

A large proportion of the Norwegian national music has arisen from the use of, or under the impression obtained from the national instruments, especially the *langeleik* (an old kind of zither) and the *Hardanger violin*, both of which have played an important part in the musical life of the country-people.

The langleik has a long, flat body with sound-holes and 7 or more strings, which are struck with a plectrum. The tone is weak, and as the possibility of developing modulations is almost entirely excluded, the effect is somewhat monotonous.

The Hardanger violin is higher and more arched in its build than the ordinary violin. The scroll is generally a dragon's head, and the body is richly ornamented with ivory, mother-of-pearl and carvings. Beneath the four upper strings, which are tuned very variously, and under the finger-board, there are four, sometimes more, sympathetic strings of fine steel wire.

By the aid of this instrument, the country-people make their improvised musical impressions of nature, interspersed with descriptive sketches of midsummer with the dawn of morning and the glow of evening, *huldre's* song, thrush's trill, or the ringing of marriage-bells.

The development of the Norwegian *art-music* has been slow. The first institution of any importance in this development was that of the publicly-appointed *town musicians*, who probably from the beginning of the 17th century, had the sole right to the performance of music, beyond that of the organists and singers in the churches. As a rule, of course, the town musicians were very indifferent performers; but several of them, in the poorly developed musical condition of that time, have exercised quite a beneficial influence, especially after it had been decided in 1780 that these posts should by preference be filled with members of the royal orchestra in Denmark, which was then united with Norway.

A few organists from this time were also very eminent men, and of late years, several of the first musicians in the country have shed a lustre upon the humble position of organist.

This applies, above all, to the already-mentioned L. M. LINDEMAN, who also founded in Kristiania the only *Academy of Music and Organ School* in the country. This school has been gradually extended to include all branches of musical instruction. The Lindeman family has also produced several other able organists and composers.

Lindeman's successor, CHRISTIAN CAPPELEN (born 1845), is a first-rate organ virtuoso, and a clever and graceful lyrical composer; while in the organist, O. WINTER-HJELM (born 1837), the country has a very eminent and accomplished musician of the

old school, who has gained great esteem both as composer and as musical author and critic. His chief work is the great university cantata «*Lyset*» (The Light), with words by Bjørnstjerne Bjørnson.

In the ranks of organists stands also JOHANNES HAARSKLOU (born 1847), one of the most prominent representatives of modern Norwegian music. In his symphonies, opera, oratorio, romances, etc. he has displayed considerable talent, an independent, energetic mind, an earnest, artistic endeavour.

M. A. UDBYE of Trondhjem (1820—1889) was also a famous organist, and has composed a considerable number of works of various kinds, among them the first Norwegian opera «*Fredkulla*».

Fru ERIKA NISSEN (born 1845), who shares with Fru AGATHE BACKER GRØNDAHL the first place among lady pianists, has an appointment as organist in Kristiania. She is greatly esteemed, and by her talented interpretation of the great classic masters, such as Bach and Beethoven, of modern romanticists such as Schumann and Chopin, and of the latest Norwegian composers, such as Nordraak, Grieg and Sinding, has had a marked influence upon the development of Norwegian musical art. In her professional tours, she has also gained a name abroad; and a life annuity has been voted her by the Storting, in recognition of her talent, similar to that voted to the poets Ibsen and Bjørnson, and some others.

The first regular musical institutions in the country were private companies.

In 1809, the *Musical Lyceum* was founded in Kristiania, and among its first leaders was the highly-gifted composer and violinist, WALDEMAR THRENE (1790—1828). His principal work is the music to the operetta «*Fjeldeventyret*», the first dramatic work of which the music bears a really genuine national stamp. One of the songs in it is one of the pearls of Norwegian national music.

After the dissolution of the Lyceum, the *Philharmonic Society* was formed in 1847. One of its first leaders was the clever pianist and thorough theorist and composer, CARL ARNOLD (1794—1873), who, on the whole, has done much towards the advancement of Norwegian music. The society existed for 20 years, and was succeeded by the *Musical Union* (Musikforeningen), which is

still the only permanent concert company in Kristiania. The so-called *Chambermusic Soirées*, which were held for many years under the management of the highly-respected firm of HALS BROTHERS, the owners of the first (1847) and largest piano-factory in the country, have been discontinued.

The Musical Union, whose object it is to perform concert-music of all kinds, was founded in 1871 by the co-operation of the famous Norwegian musician, EDVARD GRIEG, who was afterwards joined by his friend JOHAN SVENDSEN. These two talented men, with their strong, warm interest in the musical art of their country, obtained, during the time that they conducted, quite brilliant results, in spite of the very insufficient material upon which they had to work. After them, the Musical Union has been conducted by OLE OLSEN, JOHAN SELMER, and IVER HOLTER.

Of these five conductors of the principal musical institution in the country, GRIEG, now that SVENDSEN has become permanently attached to Denmark, occupies the undisputed place of standard-bearer of Norwegian music, the foremost in the ranks of Norwegian musicians, and one of the most talented of living composers. He is the highest representative of the Norse element in music, the great beating heart of Norwegian musical art. He was born in 1843 in Bergen, the capital of the west country, with its lyric temperament, and keen artistic interests. He has seldom stayed long in one place, and has travelled much in Scandinavia, Germany, Holland and Italy. In the latter half of the sixties, and the first half of the seventies, he lived in Kristiania, where his labours as teacher, conductor and composer formed an epoch in musical life there. His work as a composer, in which he still shows the same youthful freshness and wealth, extends over a very wide domain — long and short choral works, the music to Ibsen's dramatic poem, «*Per Gynt*», and to Bjørnson's «*Sigurd Jorsalfar*», a number of different compositions for the piano and for strings, and above all his large collection of romances and songs in which his deep national feeling, his fine poetic spirit, his talented melodious and rhythmic sense, have found their fullest expression.

Grieg's history cannot be written without mentioning two earlier pioneers in the domain of national art, namely, KJERULF and NORDBAAK.

HALFDAN KJERULF (1815—1868) was the first great pioneer of the national music. His youth and time of development were passed during a period of fermentation that began between 1830 and 1840. His musical feeling found chief expression in romances, of which he has composed about 100. In his Norwegian songs we find in bud the national feeling which has burst into full bloom in Grieg. This vein of feeling is also in close harmony with the literature and art of that period in Norway, especially as it is presented in WELHAVEN, ASBJØRSEN, MOE, and the first period of BJØRNSON'S writing, and in TIDEMAND'S and GUDE'S pictures.

Yet more clearly does the national tone ring out in Kjerulf's nearest inheritor, RIKARD NORDRAAK (1842—1866). In the all too few years of his life, he had not, indeed, the opportunity of creating any really great work, only the music to his cousin Bjørnson's dramas, «*Maria Stuart*», and «*Sigurd Jorsalfar*», and a few volumes of pianoforte pieces and songs, among the latter our national song, «*Ja vi elsker dette Landet*» (Yes, we love this country), — but he was nevertheless one of the most gifted personalities that Norwegian art has ever fostered. He was a man with a bold, fresh way of looking at things, strong artistic interests, an untiring love of work, and deep national feeling. He has had a decided influence upon his friend Grieg's artistic views, and is the connecting link between Kjerulf and Grieg, in the chain of Norwegian musical art.

On returning, after this digression, to the Musical Union conductors, we first meet with JOHAN SVENDSEN (born 1840). He left the country more than 15 years ago, and took an appointment at the Royal Theatre and Opera in Copenhagen. His share in Norwegian music is thus no longer what it once was, but he is nevertheless one of its greatest masters. His co-operation with Grieg in Kristiania in the sixties and seventies, and his subsequent wide-ranging activity as conductor and composer, have left their inefaceable traces in the Norwegian musical world. His works, apart from his employment and arrangement of national airs, have not the same strongly national character as those of Grieg, but rather display a clear lively artistic personality which combines a very marked personal independence with a respectful recognition of historic development. He possesses sense of form and the art of instrumentation to a remarkable degree, and is also a born sym-

phonist and a born orchestral conductor. His symphonies, rhapsodies for orchestra, fantasias, «Carnival», transcriptions for string orchestra, chamber-music, romances and male choruses are all of the greatest artistic worth.

Next to him in the ranks of Musical Union conductors stands JOHAN SELMER (born 1844). It is true his productions — a number of great symphonic works of various kinds, male choruses and full choruses *alla capella*, and a number of vocal compositions — often bear too strong an impress of heaven-storming longing, with grotesque forms, and forced modulations and expression; but he possesses an unusually rich imagination, an indomitable independence, and a strong, captivating, richly-coloured instrumentation. Selmer, who is continually travelling, appeared in Paris in 1870, just before the war, was there during the siege, and was elected by the Commune to be a member of a musical commission. Upon the entrance of the Versailles troops, he was obliged to flee, and came home to Norway in disguise. His great symphonic work, «*L'année terrible*», dates from that time.

Selmer's predecessor in the Musical Union, OLE OLSEN (born 1850), is from the regions of the midnight sun. He has displayed great activity as composer, conductor and leader of choral societies, and serves as leader of the band of the 2nd Brigade in Kristiania, with the rank of captain. His numerous compositions, which all show considerable talent, and a fresh and vigorous artistic temperament, are a symphony, two operas to librettos of his own, symphonic poems, dramatic music of various kinds, cantatas, vocal music and pianoforte pieces.

Of late years the Musical Union has been conducted by IVER HOLTER (born 1850), who was formerly conductor in the Bergen musical union, «*Harmonien*». He has also conducted at several large national choral festivals, and conducts several choral societies in Kristiania. A newly-formed *town orchestra* is mainly due to his initiative. His compositions — symphony, suite for orchestra, orchestral poem, chamber-music, chorus for male voices, songs — have also greatly increased his reputation as a thorough and earnest musician.

As Norway has no regular opera, and no permanently organised concert orchestra in constant practice, musical life has, in a very great measure, taken the form of occasional concerts.

The most famous Norwegian artist in this domain was the great violin-king, OLE BULL (1810—1880), whose life and labours are so world-renowned, that it is unnecessary to say more about him here.

Norway has also had renowned concert virtuosi in the pianists and composers, THOMAS THELLEFSEN (1823—1874) and EDMUND NEUPERT (1842—1888), and the flutist OLUF SVENSSSEN (1832—1888).

In the foremost ranks of living concert executants stands the already-mentioned AGATHE GRØNDAHL (born 1847), who is as talented and noble a pianist, as she is a gifted and prolific composer. She has especially written a number of beautiful songs, and solos for the piano.

The greatest male pianist at present is MARTIN KNUTZEN (born 1863); and the best interpreter of national romances, especially old lays and more modern ballads, is the singer, THORVALD LAMMERS (born 1841), who also, as conductor of choral concerts and sacred concerts, has done invaluable service to music. He receives an annuity as a mark of honour, from the state.

The greatest lady singers are FRU INGEBORG OSELIO-BJØRNSON (born 1859), and FRU ELLEN GULBRANSON (born 1863), in both of whom extraordinary vocal powers are combined with great dramatic talent.

The name of CHRISTIAN SINDING is one which is closely connected with concert life. He is one of the true geniuses of the younger generation. His great works are often restless and noisy, as he has become enamoured to excess of pathetic power. They are therefore wanting somewhat in classic tranquillity and purity. But with his many kindling ideas, his deep musical earnestness, and his bold personal force of expression, Sinding has in a short time made for himself, both at home and abroad, a place among the greatest musicians of the country. He has considerable command over the orchestra, and a great power of instrumentation. His productions range from symphonies and symphonic works, through chamber-music to romances.

In addition to the native artists of the country, Norway has been visited, during the past 150 years, by an ever-increasing stream of foreign artists, among them being a great number of the world's greatest musicians.

As the country does not possess a regular opera, it has generally been foreigners who have had to attempt to satisfy the longing of the people for operatic performances. A number of

foreign operatic companies and opera-singers have appeared in Norway in the course of time.

In addition to this, Norwegian artists have also occasionally cultivated this branch of art themselves, and operatic performances have frequently been given in the *Kristiania Theatre*, erected in 1837. In 1874, with Norwegian and Swedish performers, a permanent operatic company was formed, which gave quite brilliant artistic results, but such small proceeds, that after the burning down of the theatre in the beginning of 1877, it had to be discontinued.

The conductor of the theatre orchestra at that time, JOHAN HENNUM (1836—1894), contributed greatly to bring about these good results. Under his successor, PER WINGE (born 1858), who, as a song-writer, possesses both musical taste and the gift of melody, opera has also been cultivated with great success. A cousin of Winge, PER LASSON (1859—1883), raised great hopes by his beautiful songs and pianoforte compositions, but died when quite young.

When these lines are read, the *Kristiania Theatre* will be closed, and its performances transferred to the newly-instituted and newly-erected, splendid *National Theatre*. JOHAN HALVORSEN (born 1864) has been chosen to fill the post of conductor of the orchestra. As violinist, conductor, and composer of several large and small works, he has gained considerable reputation.

The majority of operatic works performed have been foreign masterpieces, but several original musical dramas have also been brought forward. The last considerable work of the kind was the «*Cossacks*», by CATHARINUS ELLING (born 1858), who, as the composer of a symphony, an oratorio, chamber-music and numerous songs, has attracted deserved attention. Another of the most prominent representatives of Norwegian dramatic music, GERHARD SCHJELDERUP (born 1859), who lives abroad, has just been honoured by the Storting, who has voted him an annual pension.

An account of Norwegian music would not be complete without a mention of the *male choirs*, which have played a very prominent part in musical life. The great epoch-making awakening in this domain took place when JOH. D. BEHRENS (1820—1890), in the middle of the forties, founded the Students', the Mercantile, and the Artisans' Choral Societies in *Kristiania*. Since that time,

his name has been indissolubly associated with this branch of music, which he made his life-work. He succeeded also in making male part-singing an important part of the national musical art. Through the formation of numerous choral societies throughout the country, and by the holding of semi-official choral festivals, male voice part-singing has gained a considerable hold.

Behrens had many eminent co-operators, among them especially the organist and musical director in Fredrikshald, F. A. REISSIGER (1809—1883), who, among other things, has composed a series of capital four-part songs in true Norse spirit.

When Behrens died, his mantle fell upon O. A. GRØNDAHL (born 1847) who had been his fellow-worker for many years, and who has taken upon himself the direction of several of the largest choral societies in Kristiania, and is also well known as a composer.

BIBLIOGRAPHY.

- Nordisk Musik-Tidende.* Kristiania 1880—1892.
 L. ROVERUD. *Et Blik paa Musikens Tilstand i Norge.* Kristiania 1815.
 J. G. CONRADI. *Kortfattet historisk Oversigt over Musikens Udvikling og nuværende Standpunkt i Norge.* Kristiania 1878.
 A. GRØNVOLD. *Norske Musikere. I.* Kristiania 1883.
 CARL WARMUTH. *Katalog over norsk Musikforlag og norske Komponisters Værker udkomne i Udlandet.* Kristiania 1887.

THE CONSTITUTION OF NORWAY

A. FORM OF GOVERNMENT AND RELIGION.

1. The kingdom of Norway shall be a free, independent, indivisible and inalienable kingdom, united with Sweden under one King. Its form of government shall be a limited and hereditary monarchy.

2. The Evangelical-Lutheran religion shall remain the public religion of the State. The inhabitants professing it shall be required to bring up their children in the same. Jesuits shall not be tolerated.

B. THE EXECUTIVE POWER, THE KING, AND THE ROYAL FAMILY.

3. The Executive power shall be vested in the King.

4. The King shall always profess the Evangelical-Lutheran religion, and maintain and protect the same.

5. The King's person shall be sacred; he cannot be blamed or accused. The responsibility shall rest upon his Council.

6. The order of succession shall be lineal and agnatic, as appointed in the Order of Succession of the 26th of September 1810, passed by the Estates of the kingdom of Sweden, and accepted by the King, a translation of which is appended to this Constitution. Among those entitled to the succession shall be reckoned also the child unborn, who shall take his proper place in the line of succession the moment he is born into the world after the death of his father.

When a Prince, entitled to succeed to the united crowns of Norway and Sweden, is born, his name, and the time of his birth, shall be notified to the first Storthing thereafter held, and entered in the record of its proceedings*).

7. If there is no Prince entitled to the succession, the King can propose his successor to the Storthing of Norway at the same time as

*) See Act of Union, sect. 2.

to the Estates of Sweden. And as soon as the King has made his proposal, the representatives of both nations shall elect a committee of their own number, which has the right to decide the election, in case the King's proposal is not approved by a majority of the representatives of each nation separately.

The number of the members on this committee, which shall consist of an equal number from each kingdom, and the order to be observed at the election shall be fixed by a law, which the King at the same time shall propose to the next Storthing and to the Estates of the kingdom of Sweden. Of the joint-committee one member shall retire by ballot*).

8. The majority of the King shall be fixed by a law, which shall be passed on agreement between the Storthing of Norway and the Estates of Sweden, or, in case they cannot come to an agreement, by a committee appointed by the representatives of both the kingdoms under the provisions laid down in the preceding sect. 7.

As soon as the King has reached the age appointed by the law, he shall publicly declare himself to be of full age**).

9. As soon as the King, being of full age, assumes the government, he shall take the following oath before the Storthing: «I promise and swear, that I will govern the kingdom of Norway in accordance with its Constitution and laws; so truly help me God and His Holy Word!»

If the Storthing is not in session at the time, the oath shall be set down in writing in the Council of State and repeated solemnly by the King to the first Storthing, either verbally or in writing by the person he may thereto appoint.

10. The coronation and anointing of the King shall take place, after he has come of age, in the Cathedral of Trondhjem, at such time and with such ceremonies as he himself shall determine.

11. The King shall reside in Norway for some time every year, unless prevented by some serious obstacle.

12. The King himself shall choose a Council of Norwegian citizens, who must not be under thirty years of age. This Council shall consist of two Ministers of State, and at least seven other members.

The King shall apportion the business among the members of the Council of State in such manner as he shall deem advantageous. On extraordinary occasions, the King, or in his absence the Minister of State, in conjunction with the Councillors of State, may summon, in addition to the ordinary members of the Council of State, other Norwegian citizens, not being members of the Storthing, to take a seat in the Council of State.

Father and son, or two brothers, may not at the same time have a seat in the Council of State.

13. During his absence, the King shall make over the internal administration of the kingdom, in such cases as he himself prescribes,

*.) See Act of Union, sect. 3.

**.) This majority has been fixed at the eighteenth year.

to one of the Ministers of State, together with at least five of the other members of the Council of State.

These shall carry on the Government in the King's name, and on his behalf. They shall inviolably observe, not only the provisions of this Constitution, but also the separate directions in accordance therewith, which the King in an instruction shall communicate to them. They have to forward to the King a humble report of the matters they thus dispose of.

The matters of business shall be disposed of by vote, when, in case of an equality of votes, the Minister of State, or in his absence the first member of the Council of State, has two votes.

14. (Abrogated).

15. During the King's residence in Sweden there shall always remain in attendance upon him one of the Ministers of State and two of the members of the Council of State, the two Councillors being changed yearly. They shall have the same duties and the same constitutional responsibility as the Government in Norway (in § 13 mentioned), and in their presence alone shall Norwegian affairs be transacted by the King.

All petitions from Norwegian citizens to the King shall first be presented to the Norwegian Government, and its report shall be submitted with them before they are disposed of.

As a rule, no Norwegian business may be disposed of without previous ascertainment of the opinion of the Government in Norway, unless serious obstacles should render this impracticable.

The Minister of State shall introduce the matters of business and remain responsible for the dispatch of affairs, in conformity with the resolutions passed.

16. The King shall regulate all public Church and Divine service, all meetings and assemblies about religious matters, and shall see that the public teachers of religion follow the rules prescribed for their guidance.

17. The King can issue and repeal regulations concerning commerce, customs, trade and industry, and police; but they must not be at variance with the Constitution or with the laws passed by the Storthing (as hereinafter provided in §§ 77, 78, and 79). Such regulations shall operate provisionally until the next Storthing.

18. The King shall generally cause the taxes and duties imposed by the Storthing to be collected. The Norwegian Exchequer shall remain in Norway, and its revenues shall be applied solely to the benefit of Norway.

19. The King shall take care that the Crown estates and regalia are utilised and managed in the manner appointed by the Storthing and most advantageous to the public.

20. The King in Council shall have the right to pardon criminals after judgment is pronounced. The criminal shall have the choice whether he will throw himself on the King's grace or submit to the punishment awarded to him.

In the cases that the Odelsting causes to be laid before the Rigsret, no other pardon than exemption from capital punishment can be granted.

21. The King, with the advice of his Norwegian Council of State, shall choose and appoint all civil, ecclesiastical, and military officials. Such officials shall swear, or if by law exempted from taking the oath, solemnly affirm obedience and allegiance to the Constitution and the King.

The Royal Princes may not fill civil offices.

22. The Ministers of State and the other members of the Council of State, together with the departmental officials, ambassadors and consuls, civil and ecclesiastical persons of supreme authority, chiefs of regiments and of other military corps, commandants of forts and commanding officers of men-of-war, can, without any preceding judicial sentence, be dismissed by the King, after hearing the opinion of the Council of State on the subject. How far pensions should be granted to the officials thus dismissed is determined by the next Storthing. In the meantime they receive two-thirds of their previous pay.

Other officials can only be suspended by the King and shall then at once be prosecuted before the tribunals, but they may not be dismissed unless judgment has been pronounced against them, nor may they be removed against their will.

23. The King can confer orders on any one he pleases as a reward for distinguished services, which must be publicly notified, but he can confer no other rank or title except such as each office carries with it. The order exempts no one from the common duties and burdens of the citizens, nor does it carry with it preferential admission to any office of the State. Officials that retire with the King's favour retain the title and rank of the office they filled.

No personal or mixed hereditary privileges may henceforth be granted to any one.

24. The King may choose and dismiss at his own pleasure his Royal household and Court attendants.

25. The King is Commander-in-chief of the Army and Navy of the kingdom. These forces may not be increased or reduced without the sanction of the Storthing. They may not be transferred to the service of foreign powers, and no soldiers of foreign powers, except auxiliary troops against hostile attack, may be brought into the kingdom without the sanction of the Storthing.

In time of peace no other than Norwegian troops may be stationed in Norway, and no Norwegian troops may be stationed in Sweden. The King may, however, have in Sweden a Norwegian guard of volunteers, and can for a short time, at most six weeks in the year, assemble the nearest troops of the military power of both the kingdoms for manœuvres within the borders of either kingdom; but in no case may more than 3000 soldiers of all arms, taken

together, be brought in times of peace into the one kingdom from the forces of the other kingdom.

The Norwegian troops and flotilla may not be used for offensive war without the sanction of the Storting.

The Norwegian Navy shall have its wharfs, and in times of peace its stations or harbours, in Norway.

The warships of the one kingdom may not be manned by the seamen of the other, except in so far as such seamen sign articles of their own free will.

The Landvern and the other Norwegian troops who cannot be classed among the line troops, may never be employed beyond the borders of Norway.

26. The King shall have the right to assemble troops, to commence war and to conclude peace, to enter into and to break off alliances, to send and to receive ambassadors. When the King proposes to commence war, he shall communicate his views to the Government in Norway, and procure its opinion thereon, together with a full report as to the condition of the kingdom with regard to its finances, means of defence, and so forth.

This having been complied with, the King shall summon the Norwegian Minister and Norwegian Councillors of State, as well as the Swedish Minister and Councillors, to an extraordinary Council of State, and shall then explain the reasons and the circumstances, which in this case have to be taken into consideration. At the same time the report of the Norwegian Government on the condition of this kingdom, as well as a similar report on that of Sweden, shall be laid on the table. The King shall ask their opinion on these subjects, which they, each for himself, shall enter upon the minutes, under the responsibility which the Constitution imposes upon them, and then the King shall have the right to take and to carry into effect such resolution as he deems to be for the best interests of the State.

27. All Councillors of State shall, unless they have a lawful excuse, be present at the Council of State, and no resolution may be taken there unless more than half the number of members be present. In the Norwegian business that under § 15 is transacted in Sweden, no resolution may be taken unless either the Norwegian Minister of State and one Norwegian Councillor of State or else both the Norwegian Councillors of State, are present.

28. Reports on the subject of appointments to offices and other matters of importance—with the exception of diplomatic affairs, and of matters relating strictly to the military command—shall be brought forward at the Council of State by the member to whose department they belong, and such matters are to be carried out in accordance with the resolution taken at the Council of State.

29. If a Councillor of State is prevented by a lawful excuse from attending the meeting and introducing the matters that belong to his department, these shall be introduced by another Councillor

of State, whom the King, if he is present, and, if not, the presiding member of the Council of State in conjunction with the other Councillors of State, shall appoint for the purpose.

If so many are prevented by lawful excuse from attending that not more than half of the fixed members are present, other officials shall in like manner be deputed to take seats in the Council of State, in which case a report thereon shall forthwith be made to the King, who decides whether they shall continue to discharge this function.

30. All the proceedings of the Council of State shall be entered in the minutes. Every one that has a seat in the Council of State is in duty bound fearlessly to express his opinions, to which the King is bound to listen. But it remains with the King to take a resolution according to his own judgment. If any member of the Council of State finds that the King's resolution is at variance with the form of government or the laws of the kingdom, or apparently prejudicial to the kingdom, it is his duty to make strong representations against it, and also to record his opinion on the minutes. A member that has not thus protested, is regarded as having been in accord with the King, and is answerable therefor in such manner as is subsequently decided, and can be impeached by the Odelsting before the Rigsret*).

31. All commands drawn up by the King himself, with the exception of military orders, shall be countersigned by one of the Ministers of State.

32. The resolutions that are taken by the Government in Norway in the King's absence, shall be drawn up in the King's name, and signed by the Council of State.

33. All reports on Norwegian affairs, as well as the dispatches issued in connection therewith, must be written in the Norwegian language.

34. The nearest heir to the Throne, if he is the son of the reigning King, shall bear the title of Crown Prince. The other persons entitled to succeed to the crown are to be called Princes, and the daughters of the Royal House Princesses.

35. As soon as the Heir to the Throne has completed his eighteenth year, he is entitled to take a seat in the Council of State, but without vote or responsibility.

36. No Prince of the Blood may marry without the sanction of the King. If he acts contrary to this rule, he forfeits his right to the Crown of Norway.

37. The Royal Princes and Princesses shall not, personally, be answerable to any other person than the King, or to such person as he may ordain to be judge over them.

38. The Norwegian Minister of State, as well as the two Norwegian Councillors of State who are in attendance upon the King, shall have seats and a deliberative vote in the Swedish Council of State, when affairs that affect both kingdoms are being transacted there.

*) Cf. §§ 86, 87 and page 183.

In such matters the opinion of the Norwegian Government ought also to be obtained, unless the business requires to be disposed of in such haste, that time will not allow of it*).

39. If the King dies, and the Heir to the Throne is still under age, the Norwegian and Swedish Councils of State shall at once assemble, in order jointly to summon a meeting of the Storting in Norway and of the Riksdag in Sweden**).

40. Until the representatives of both kingdoms are assembled and have taken measures for the government during the King's minority, a Council of State consisting of an equal number of Norwegian and Swedish members shall conduct the governments of the kingdoms, with due regard to the different constitutions of the two kingdoms.

The Norwegian and the Swedish Minister of State, who have seats in the aforesaid joint council, shall cast lots as to which of them shall be President***).

41. The provisions laid down in the preceding §§ 39 and 40 shall also be operative on every occasion when, according to the Swedish form of government, it devolves on the Swedish Council of State to carry on the government***).

On such occasions, as it has hitherto devolved upon the interim Government of Norway and Sweden, in accordance with the Constitutions of Norway and Sweden, and with the provisions of the Act of Union, to conduct the government of the kingdoms, when the King is prevented, either by being on travel outside his kingdoms or by illness, from carrying on the government, the Prince next entitled to succeed to the throne shall, provided he has attained the age fixed for the King's majority, conduct the government as the temporary executive of the Royal power, with the same rights as devolve on the interim Government.

42. As to the further provisions necessary in the cases mentioned in §§ 39, 40, and 41, the King is to introduce in the next Storting in Norway and in the next Riksdag in Sweden, a bill framed on the principle of complete equality between the two kingdoms.

43. The election of guardians, who shall administer the government of the King, when he is under age, shall take place according to the same rules, and in the same manner as before prescribed in § 7 for the election of a successor to the Throne†).

44. The persons, who in the cases mentioned in §§ 40 and 41 are conducting the government, shall take the following oath: «I promise and swear to carry on the government in accordance with the Constitution and the laws, so truly help me God and His Holy Word!»

*) See Act of Union, sect. 5.

**) See Act of Union, sect. 6.

***) See Act of Union, sect. 7.

†) See Act of Union, sect. 8.

The Norwegians shall take the oath before the Storthing of Norway; the Swedes before the Estates of the kingdom of Sweden. If the Storthing or the Riksdag is not sitting at the time, the oath shall be delivered in writing to the Council of State, and be repeated afterwards to the next Storthing or Riksdag.

45. As soon as their administration of the State ceases, they shall render to the King and the Storthing an account of the same.

46. If the persons in question neglect at once to summon the Storthing in accordance with §§ 39 and 40, it becomes the absolute duty of the Supreme Court, as soon as four weeks have elapsed, to cause this summons to be issued.

47. The conduct of the King's education during his minority shall be determined in the manner prescribed in §§ 7 and 43, unless his father has left some directions in writing.

It shall be an invariable rule that the King during his minority be given sufficient instruction in the Norwegian language.

48. If the Royal family in the male line becomes extinct, and no successor to the Throne has been elected, then shall a new Royal house be chosen in the manner prescribed in § 7. Meanwhile the executive power shall continue to be exercised according to § 43.

C. CITIZENSHIP AND THE LEGISLATIVE POWER.

49. The people shall exercise the legislative power through the Storthing, which consists of two divisions, a Lagthing and an Odels-thing.

50. The right of voting shall belong to every Norwegian citizen who has completed his twenty-fifth year, has resided in the country for five years, and is residing there.

51. A register of all inhabitants who have a vote shall be kept in every town by the burgomaster and in every parish by the faged*) and the parson. The changes which it may undergo from time to time shall be entered in it forthwith.

Every one shall, before he is entered on the register, swear publicly in Court, or, if he by law is exempted from taking the oath, solemnly affirm allegiance to the Constitution.

52. The right to vote shall be suspended:

a) By indictment for criminal offences that may carry with them such punishments as are mentioned in § 53 (a);

b) By being declared incapable of managing one's own affairs;

c) By assignment of one's estate to one's creditors or by bankruptcy which is not caused by accidental fire or other non-imputable or provable mischance, until the debtor, either by payment in full to the creditors or by composition with them, shall regain control of his estate;

*) See page 187.

d) By being, or having been, during the last year, before the election, in receipt of poor relief.

53. The right to vote shall be lost:

a) By having been condemned to penal servitude or dismissal from office, or to imprisonment for a crime that is dealt with in any of the chapters of the criminal law on perjury, theft, robbery, or fraud. This effect of the sentence shall be annulled on having acquired «restitution of honour»;

b) By entering the service of a foreign power without the consent of the Government;

c) By acquiring citizenship in a foreign State;

d) By being convicted of having bought votes, sold one's own vote, or voted at more than one poll.

54. The polls and the district conventions shall be held every three years. They shall all be over by the end of September.

55. The polls shall be held in the country in the principal church of the parish; in the towns in the church, at the town-hall, or at some other suitable place. They shall be conducted in the country by the parson and his assistants; in the towns by the burgomaster and aldermen*). The voting shall take place in the order of the names on the register. Questions as to the right of voting shall be decided by the conductors of the poll, against whose decision there shall be an appeal to the Storting.

56. Before the elections commence, §§ 50—64 of the Constitution shall be read out aloud by the presiding officer.

57. In the towns, one electoral representative shall be nominated for every fifty inhabitants entitled to vote. These electoral representatives assemble within eight days from that date at a place appointed for that purpose by the authorities, and elect, either from their own number or from among the other qualified voters in their electoral district, representatives to attend and take their seats in the Storting.

The number of representatives in the Storting which the towns have to elect is fixed at 38. Of these there shall be elected, until it is otherwise determined in a constitutional manner, from Aalesund and Molde together one, from Arendal and Grimstad together one, from Bergen four, from Brevik one, from Kristiania, Hønefoss, and Kongsvinger together four, from Kristiansand two, from Kristiansund one, from Drammen two, from Flekkefjord one, from Fredrikshald one, from Fredrikstad one, from Hammerfest, Vardø, and Vadsø together one, from Holmestrand one, from Kongsberg one, from Kragerø one, from Larvik and Sandefjord together one, from Lillehammer, Hamar, and Gjøvik together one, from Moss and Drobak together one, from Porsgrund one, from Sarpsborg one, from Skien one, from Stavanger and Haugesund together two, from Tromsø one, from Trondhjem and Levanger together four, from Tønsberg one, and from Østerrisør one.

*) See page 189.

When a town, which is not here mentioned, has fifty or more qualified voters, it shall be included in the electoral district of the nearest town. The same rule shall apply to towns that may hereafter be founded. A town that has come to be included in the electoral district of another town shall elect its own electoral representative, even if the number of its qualified voters should become less than fifty. In a town that by itself constitutes an electoral district, there shall in no case be elected less than three electoral representatives.

58. In every parish in the country the qualified voters shall elect electoral representatives in proportion to their number, thus: up to 100 elect one, 100 to 200 two, 200 to 300 three, and so on in the same proportion. These electoral representatives shall assemble within one month from that date at a place appointed for that purpose by the prefect*), and shall then elect, either from their own number or from among the other qualified voters in the county, representatives to attend and take their seats in the Storting.

The number of representatives in the Storting which the country districts have to elect shall be fixed at 76. Of these, there shall be elected, until it is otherwise determined in a constitutional manner, from Akershus county five, from North Bergenhus county five, from South Bergenhus county five, from Kristians county five, from Finmarken county two, from Hedemarken county five, from Nordland county five, from Romsdal county five, from Stavanger county five, from Tromsø county two, and from each of the other eight counties of the kingdom four.

Any one who has been Minister or Councillor of State may be chosen as a representative even in a constituency where he is not a qualified voter, provided he is otherwise eligible, and has not already been elected as a representative for any other district. But no district can at the same time have more than one representative from outside the number of its own qualified voters.

59. (Abrogated).

60. The qualified voters within the kingdom that are not able to be present on account of illness, military service, or other lawful impediment, may send their votes in writing to the presiding officer before the poll is closed.

How far and in what manner qualified voters sojourning out of the kingdom may be allowed to send their ballot-papers in writing to the presiding officer at poll, shall be determined by law.

61. No one can be chosen as a representative unless he is thirty years of age, and has resided ten years in the kingdom.

62. The members of the Government and the officials employed in their departments, as well as the Court officials and pensioners, cannot be chosen as representatives.

*) See page 186.

63. Every one who is elected as a representative, shall be in duty bound to accept the election, unless he is chosen under the circumstances mentioned in the last paragraph of § 58, or is prevented by an impediment that is judged lawful by the electoral representatives, whose decision can be submitted to judgment of the Storthing. Any one who has attended as representative at the three ordinary Storthings after one election, is not obliged to accept election at the next election for the Storthing. If a representative is prevented by lawful impediment from attending the Storthing, the person who has the greatest number of votes after him, or, if a special election to fill the vacancy has been held by the district convention, then the representative elected to fill the vacancy shall take his place.

64. As soon as the representatives are elected, they shall be furnished with a certificate signed in the country districts by the chief magistrate, and in the towns by the burgomaster, as well as by all the electoral representatives as evidence of their having been elected in the manner prescribed by the Constitution. It is for the Storthing to judge of the validity of these certificates.

65. Every representative shall be entitled to reimbursement from the Exchequer for travelling expenses to and from the Storthing, and for maintenance during the time he stays there.

66. The representatives shall be exempt from personal arrest while on their way to and from the Storthing, as well as during their stay there, unless they are caught in public crimes; nor can they be called to account outside the meetings of the Storthing for the opinions they have expressed there. Every representative shall be bound to conform to the rules of the Storthing.

67. The representatives elected in the manner aforesaid shall constitute the Storthing of the Kingdom of Norway.

68. The Storthing shall as a rule assemble on the first week-day after the tenth of October every year in the capital of the kingdom, unless the King, by reason of extraordinary circumstances, such as hostile invasion or infectious disease, shall appoint for the purpose another town in the kingdom. Such an appointment must then be publicly notified in good time.

69. In extraordinary cases the King shall have the right to summon the Storthing at an unusual time. The King shall then issue a proclamation, which shall be read in all the churches of the episcopal cities at least fourteen days before the members of the Storthing are to meet at the appointed place.

70. Such an extraordinary Storthing may be dissolved by the King when he may think proper.

71. The members of the Storthing shall act as such for three successive years in extraordinary as well as in the ordinary Storthings that are held during that period.

72. If an extraordinary Storthing is still in session at the time when an ordinary Storthing is to open, the former shall be dissolved before the latter assembles.

73. The Storthing shall elect from among its members one fourth part, which constitutes the Lagthing; the remaining three fourths form the Odelsting. The election shall take place at the first ordinary Storthing that meets after a new election, and thereafter the Lagthing shall remain unchanged during all Storthings that meet after the same election, except in so far as any vacancy which may occur among its members has to be filled by special election.

Each Thing shall hold its meetings separately, and elect its own President and Secretary. Neither of the Things shall hold meetings unless two-thirds of its members are present.

74. As soon as the Storthing is constituted the King, or the person he appoints for the purpose, shall open its proceedings with a speech, in which he shall inform it of the condition of the kingdom and the subjects to which he particularly desires to call the attention of the Storthing. No deliberation may take place in the presence of the King.

When the proceedings of the Storthing are opened, the Ministers of State and the Councillors of State have the right to attend in the Storthing as well as in both its divisions, and, like its members, but without giving a vote, to take part in the current proceedings, in so far as these are conducted with open doors, but in such matters as are discussed with closed doors, only in so far as the Thing in question may grant permission.

75. To the Storthing shall belong the powers and duties following:

a) To enact and to repeal laws; to impose taxes, duties, customs, and other public burdens, which, however, do not remain in force longer than till the 1st of April of the year in which the next ordinary Storthing meets, unless they are expressly renewed by the Storthing then sitting;

b) To open loans on the credit of the kingdom;

c) To control the finances of the kingdom;

d) To vote the sums of money necessary to meet the expenditure of the State;

e) To decide how much shall be paid yearly to the King for his Royal household, and to determine the appanage of the Royal family, which may not, however, consist of real property;

f) To have laid before it the minutes of the Norwegian Government and all public reports and documents (matters of strictly military command excepted), as well as certified copies or extracts of the minutes kept by the Norwegian Minister of State and the two Norwegian Councillors of State in attendance upon the King in Sweden, or the public documents that have been there produced;

g) To have communicated to them the alliances and treaties that the King on behalf of the State has entered into with foreign powers, with the exception of secret articles, which, however, must not be at variance with the public ones;

h) To be able to summon any one to attend before it in matters of State, the King and the Royal family excepted; this exception, however, does not apply to the Royal Princes in case they hold any office;

i) To revise salary and pension lists, which are not permanent, and to make therein such alterations as it finds necessary;

k) To appoint five auditors, who shall annually examine the accounts of the State and publish printed extracts of the same; and such accounts shall for this purpose be delivered to these auditors within six months after the expiration of the year for which the grants of the Storthing are made;

l) To naturalise aliens.

76. Every law shall first be proposed in the Odelsting, either by its own members, or by the Government through a Councillor of State. If the proposal is there accepted, it is sent to the Lagthing, which either approves or rejects it, and in the latter case sends it back with comments appended. These are taken into consideration by the Odelsting, which either drops the bill or again sends it to the Lagthing, with or without alteration. When a bill from the Odelsting has twice been laid before the Lagthing and has been a second time rejected by it, the whole Storthing shall meet and dispose of the bill by a majority of two-thirds. There must be an interval of at least three days between each of these deliberations.

77. When a resolution proposed by the Odelsting is approved by the Lagthing or by the assembled Storthing, it is sent to the King, if he is present, or, if he is not present, to the Norwegian Government, with a request that it shall obtain the King's sanction.

78. If the King assents to the resolution, he shall append his signature to it, whereby it becomes law.

If he does not assent to it, he shall send it back to the Odelsting with the declaration that he does not at present consider it expedient to sanction it. In this case the resolution may not again be submitted to the King by the Storthing then assembled.

79. If a bill has been passed unaltered by three ordinary Storthings, constituted after three different successive elections separated from each other by at least two ordinary Storthings between them, without any divergent resolution having been adopted by any Storthing in the period between the first and the last passing, and is then submitted to the King with the prayer that his Majesty will not refuse his sanction to a bill that the Storthing, after the most mature deliberation, considers to be for the benefit of the State, it becomes law, even if the King's sanction is not accorded, before the Storthing separates.

80. The Storthing shall remain in session as long as it considers necessary, but not beyond two months, without the King's permission. When, having finished its business, or having been in session for the appointed time, it is dissolved by the King, he shall at the same time communicate his decision with regard to the resolu-

tions that have not already been disposed of, by either ratifying or rejecting them. All such as he does not expressly assent to are deemed to be rejected by him.

81. All laws are to be drawn up in the Norwegian language and (with the exception of those referred to in § 79) in the King's name, under the seal of the Kingdom of Norway, and in the following terms; «We, N. N., make it publicly known that the following resolution of the Storting of [such and such a date] in the following terms has been laid before us (here follows the resolution). Accordingly we have assented to and confirmed, as we hereby assent to and confirm, the same as law under our hand and seal of the State.»

82. The sanction of the King is not required to the resolutions of the Storting whereby

a) It declares itself assembled as Storting according to the Constitution;

b) It appoints its internal police;

c) It accepts or rejects the certificates of the members present;

d) It confirms or rejects the decisions on questions arising out of the elections;

e) It naturalises aliens;

f) And, finally, to the resolution whereby the Odelsting impeaches Councillors of State or others.

83. The Storting may procure the opinion of the Supreme Court on questions of law.

84. The Storting shall be held with open doors, and its proceedings are to be published in print, except in those cases where a majority decides to the contrary.

85. Any person who obeys an order, the purpose of which is to disturb the liberty and security of the Storting, is thereby guilty of treason to the Fatherland.

D. THE JUDICIAL POWER.

86. The members of the Lagthing, in conjunction with the Supreme Court, shall constitute the Rigsret [the Constitutional Court of the Realm], which in first and last instance shall pronounce judgment in such cases as are brought by the Odelsting either against members of the Council of State or of the Supreme Court for crimes committed in their respective offices, or against members of the Storting for such crimes as they may have committed in their capacity of such members.

In the Rigsret the President of the Lagthing takes the chair.

87. The accused may, without alleging any reason for it, challenge any member up to one third of the members of the Rigsret, provided that the Court be not constituted of less than fifteen persons.

88. The Supreme Court shall pronounce judgment in the last instance. It may not consist of less than a Chief Justice and six Assessors.

This paragraph, however, shall not prevent penal cases from being, in accordance with the law, finally disposed of without the assistance of the Supreme Court.

89. In time of peace, the Supreme Court, with two officers of high rank, nominated by the King, shall be the court of second and last instance in all such cases of military law as involve either life or honour, or loss of liberty for a longer period than three months.

90. Judgments of the Supreme Court can in no case be appealed against or be submitted to revision.

91. No one can be appointed a member of the Supreme Court before he is thirty years of age.

E. GENERAL PROVISIONS.

92. To official posts in the State there may be appointed only such Norwegian citizens as speak the language of the country, and at the same time

a) Were either born in the kingdom of parents that were then subjects of the State;

b) Or were born in foreign countries of Norwegian parents that were not at the time subjects of another State;

c) Or have hereafter resided ten years in the kingdom;

d) Or have been naturalised by the Storting.

Others, however, can be appointed as teachers at the university and colleges, as medical officers, and as consuls in foreign places.

No one may be appointed as chief magistrate before he is thirty years of age, or as burgomaster, subordinate judge, or faged before he is twenty-five years of age.

Only such as profess the public religion of the State can be members of the King's Council. As to the other officers of the State, the necessary provisions are to be laid down by law.

93. Norway shall not be liable for any other than her own national debt.

94. Steps are to be taken by the first, or, if this is not possible, by the second ordinary Storting, for the publication of a new general civil and criminal code*). In the meantime the laws of the State now in operation will remain in force, in so far as they are not at variance with this Constitution, or with the provisional ordinances that may be issued in the meantime.

The existing permanent taxes shall likewise continue until the next Storting.

*) See page 196.

95. No dispensations, protections, postponements of payments, or redresses may be granted after the new general law comes into force.

96. No person can be condemned except according to law, or be punished except according to judicial sentence. Examination by torture may not take place.

97. No law may be given retroactive effect.

98. All fees paid to officials of the courts of justice are exempt from taxes to the Exchequer.

99. No person may be arrested and detained in prison except in the cases determined by law, and in the manner prescribed by the laws. For unjustifiable arrest or illegal detention, the person concerned shall be responsible to the person imprisoned.

The Government is not entitled to employ military force against subjects of the State, except in accordance with the forms provided by law, unless any meeting should disturb the public peace, and does not immediately disperse after the articles in the Statute-book relating to riots have been read aloud three times by the civil authority.

100. There shall be liberty of the Press. No person can be punished for any writing, whatever its contents may be, which he has caused to be printed or published, unless he, wilfully and publicly, has either himself shown or incited others to disobedience to the laws, contempt of religion or morality or the constitutional authorities, or resistance to their orders, or has advanced false and defamatory accusations against some one. Every one shall be at liberty to speak his mind frankly on the administration of the State and on any other subject whatsoever.

101. New and permanent restrictions on the freedom of industry shall not be granted to any one in future.

102. Domiciliary visits may not be made, except in criminal cases.

103. Sanctuaries shall not be granted to such as hereafter become bankrupt.

104. Neither landed nor movable property can in any case be confiscated.

105. If the welfare of the State shall demand that any person shall surrender his movable or immovable property for the public use, he shall receive full compensation from the Exchequer.

106. Both the purchase money and the income derived from the landed property constituting the benefices of the clergy shall be applied solely to the benefit of the clergy and to the promotion of education. The property of charitable institutions shall be applied solely to their advantage.

107. The Odel and Aasæde*) rights may not be abolished. The further conditions under which they shall continue, to the greatest benefit for the State and advantage of the country population, are to be determined in the first or second Storting following.

*) See page 309.

108. No earldoms, baronies, entailed estates, or heirlooms may be created in future.

109. Every citizen of the State is, as a rule, equally bound, for a certain time, to defend his Fatherland, whatever be his birth or fortune. The application of this principle and the limitations it is to undergo, also how far it is beneficial to the country that the duty of serving in the army ceases at the age of twenty-five, shall be left to the first ordinary Storthing to decide, after every information has been obtained by a committee. In the meantime the existing provisions shall continue in force.

110. Norway shall retain her own Bank and her own currency and coinage, and these institutions shall be determined by law.

111. Norway has the right to have her own merchant flag. Her naval flag shall be a union-flag.

112. If experience should show that any part of this Constitution of the Kingdom of Norway requires to be altered, the proposal therefore shall be submitted at the first ordinary Storthing after a new election, and be published in print. But it is only one of the ordinary Storthings after the next election which shall be entitled to decide whether the proposed alteration should be made or not. Such an alteration, however, must never be at variance with the principles of this constitution, but must be rigidly restricted to such modifications in particular provisions as do not change the spirit of this constitution; and two-thirds of the Storthing must agree to such an alteration.

ACT OF UNION

1. The Kingdom of Norway shall be a free, independent, indivisible, and inalienable kingdom, united with Sweden under one King. Its form of government shall be a limited and hereditary monarchy.

2. The order of succession shall be lineal and agnatic, as appointed in the Order of Succession of the 26th of September 1810, passed by the Estates of the Kingdom of Sweden and adopted by the King.

Among those entitled to the succession is reckoned also the child unborn, who takes his proper place in the line of succession the moment he, after the death of his father, is born into the world.

When a Prince entitled to succeed to the united Crowns of Norway and Sweden is born, his name and the time of his birth shall be notified to the first Storthing thereafter held, and entered in the record of its proceedings.

3. If there is no Prince entitled to the succession, and an election of a successor to the Throne of both kingdoms has to be held, the Storthing in Norway and the Riksdag in Sweden shall be summoned for one and the same day. The King, or, if the election of a successor to the Throne occur when the Throne is vacant, the lawful interim Government of both kingdoms, shall, within eight days after the date when the Storthing in Norway has been lawfully opened and the Riksdag in Sweden has been opened in the Rikssal, on the same day in both places make a proposal anent the succession to the Throne.

Members of the Norwegian Storthing as well as members of the Swedish Riksdag shall have the right to propose a successor to the Throne. If any of them desires to exercise this his right of motion, he shall be bound to avail himself of it within this appointed time.

The Norwegian Storthing and the Estates of the Kingdom of Sweden shall thereafter appoint the day of election, each body for itself; but the election of a successor to the Throne must take place without fail not later than the twelfth day after the term appointed for the making of the proposal.

On the day before that which has thus been appointed for election of a successor to the Throne by the Norwegian Storthing and the Estates of the kingdom of Sweden, the Norwegian Storthing, as well as the Estates of the kingdom of Sweden, shall, from among their own members, elect the committee that is charged, in case the choice of the Norwegian Storthing and the Estates of the kingdom of Sweden should fall upon different persons, to meet and, with the rights of the representatives of both kingdoms, choose by vote one person.

On the day appointed for the election, the Storthing of Norway and the Estates of the kingdom of Sweden shall, in the manner appointed by the several constitutions of the two kingdoms, each elect only one person from among the proposed candidates. If the choice of both kingdoms has fallen upon the same person, then he is lawfully elected successor to the Throne. Should, on the other hand, each of the kingdoms have chosen a different person, this variance is disposed of by the vote of the joint committee of the two kingdoms.

This committee shall consist of thirty-six persons from each kingdom, as well as eight deputy-members, elected in the manner specially ordained by the Storthing of Norway and the Estates of the kingdom of Sweden. The deputy-members shall take part in the proceedings in fixed order, but only in the event of any of the ordinary members not being present at the election.

Karlstad shall be the place of meeting for the committees of both kingdoms. Before the several committees set out from the place where the Storthing in Norway and the Riksdag in Sweden are held, each shall elect a chairman from its own number.

It is the duty of the King, or, in the event of his decease, of the lawful interim Government of both kingdoms, within the shortest possible time after having received information of the separate election of each kingdom, and having regard to the distance between the place of meeting and the places where the Storthing in Norway and the Riksdag in Sweden are held, to fix the day upon which the committees of both kingdoms shall meet in Karlstad, but not later than on the twenty-first day after the twelfth day hereinbefore appointed for the Norwegian Storthing and the Swedish Riksdag as the latest term for the election.

The chairmen of the committees for both kingdoms shall, immediately after their arrival, jointly prepare a summons to assemble in the forenoon of the day after that which has been appointed for the arrival of the committees at the place of meeting.

At the meeting the chairman of each committee shall first read out his own and his colleagues' credentials; after which the two chairmen shall draw lots as to which of them shall preside at the election. The joint committee for both kingdoms, thus united under one chairman, who is also entitled to vote, shall thereupon proceed forthwith, and without discussion, to take the vote.

The members of the committees shall not separate, nor shall any of them leave the room of the meeting, before the election proceedings are in every respect terminated.

At the voting the chairman of the committee for each kingdom shall read out and exchange the document that contains the name of the one person on whom the choice of his National Assembly has fallen. In accordance therewith shall the terms of the proposal to be voted on be settled, and the names of both the candidates for the Throne shall be entered therein, after the following form:—

«The delegates of the Storting of Norway and of the Estates of the kingdom of Sweden are voting jointly to elect a successor to the united Thrones of Norway and Sweden. On the part of the Storting of Norway, N. N. has been proposed as such; on the part of the Estates of the kingdom of Sweden, N. N. has been proposed as such.

«If the greatest number of votes fall upon N. N., then he is lawfully elected as the King's successor (King) to the united Thrones of Norway and Sweden.»

«If the greatest number of votes fall upon N. N., then he is lawfully elected as the King's successor (King) to the united Thrones of Norway and Sweden.»

Before the electors are challenged to cast their votes, all the regulations relating to the mode of voting are to be read out aloud and clearly.

The call to vote on this occasion shall be so conducted that, when the chairman of the joint committee is Norwegian, then the Swedish delegates shall be called first and cast their votes, and after them the Norwegians; and *vice versa* when the chairman is Swedish.

The voting shall take place by means of ballot-papers of equal size and appearance in every respect, on which the name of each candidate for the Throne shall be printed in the same type. The chairman, who does not preside over the proceedings, shall sign his name to the ballot-papers before they are delivered to the delegates.

In order to be valid, these ballot-papers shall be single, unmarked, closed and rolled up.

A simple majority decides the issue.

Before the ballot-papers are counted, the chairman shall pick out one of them and lay it aside under seal.

If, after the call has taken place, on the opening of the ballot-papers any one of them is found which according to the foregoing regulations is inadmissible, it shall there and then be destroyed. If in consequence thereof, it should turn out that the votes are equal, the ballot-paper that was sealed up is to be opened, which shall then decide the matter, provided it is found to possess the qualities mentioned; but if it is inadmissible, then what has passed is to be deemed to be of no valid effect, and the voting is at once to be recommenced afresh.

If the majority is already decided, without the application of this means, the ballot-paper that was laid aside shall immediately be destroyed unopened.

The minutes of the voting shall be kept by some of the delegates themselves—in the Norwegian language if the chairman is a Norwegian, in the Swedish if he is a Swede. These minutes shall be read out aloud and adopted immediately after the voting, after which two exactly corresponding copies shall be made, be signed by the whole election committee before it dissolves, be sealed in its presence, and, by the direction of the chairman of the committee for each kingdom, be dispatched at once the same day, the one copy to the Storthing of Norway, addressed to its president; the other to the Estates of the kingdom of Sweden, addressed to the landmarshal and the other presidents.

These minutes shall be signed in such manner that in the copy which is to be dispatched to the Norwegian Storthing the signatures of the delegates from Norway shall stand first, and those of the delegates from Sweden next; and in the one that is to be dispatched to the Estates of Sweden the signatures of the delegates from Sweden shall stand first, and those of the delegates from Norway next.

After the receipt of this election return at both places, it shall immediately, or at latest on the following day, be submitted to the Storthing in Norway and to the Estates of the kingdom of Sweden; and the Storthing of Norway and the Estates of the kingdom of Sweden shall at once take the necessary steps to inform his Royal Majesty, or, in case of his demise, the lawful interim Government, of this resolution of the representatives of both kingdoms.

4. The King shall have the right to assemble troops, to commence war and to conclude peace, to enter into and to break off alliances, to send and to receive ambassadors.

When the King proposes to commence war, he shall communicate his views to the Government in Norway, and procure its opinion thereon, together with a full report as to the condition of the kingdom, with regard to its finances, means of defence and so forth. This having been complied with, the King shall summon the Norwegian Minister and the Norwegian Councillors of State as well as the Swedish Minister and Councillors, to an extraordinary Council of State, and then explain the reasons and circumstances which in this case have to be taken into consideration. At the same time the report of the Norwegian Government on the condition of this kingdom, as well as a similar report on that of Sweden, shall be laid on the table. The King shall ask their opinion on these subjects, which they, each for himself, shall enter upon the minutes, under the responsibility which the Constitution imposes upon them, and then the King shall have the right to take and to carry into effect such resolution as he deems to be for the best interests of the State.

5. The Norwegian Minister of State, as well as the two Norwegian Councillors of State who are in attendance upon the King [at Stockholm during the King's residence in Sweden], shall have seats and a deliberative vote in the Swedish Council of State when affairs that affect both kingdoms are being transacted there.

In such matters the opinion of the Norwegian Government ought also to be obtained, unless the business requires to be disposed of in such haste that time will not allow of it. As often as the King in the Norwegian Council of State, whenever and wherever it is assembled, transacts business which concerns both kingdoms, three members of the Swedish Council of State shall also have seats and votes.

6. If the King dies, and the Heir to the Throne is still under age, the Norwegian and Swedish Councils of State shall at once assemble in order jointly to summon a meeting of the Storting in Norway and of the Riksdag in Sweden.

7. Until the representatives of both kingdoms are assembled and have taken measures for the conduct of the government during the King's minority, a Council of State, consisting of an equal number of Norwegian and Swedish members, shall conduct the government of the kingdoms under the name of the interim Government of Norway and Sweden, with due regard to the different constitutions of the two kingdoms.

This joint Council of State shall consist of ten members from each kingdom, namely: from Norway, the Norwegian Minister and the two Councillors of State in attendance upon the King at Stockholm, together with seven Councillors of State, whether ordinary or specially appointed, who, in the event of a vacancy of the Throne, or during the King's minority, shall be elected by the Government in Norway from among its own members, in whose place at least three Councillors of State in Norway shall be nominated; and from Sweden, the two Ministers and eight Councillors of State.

With regard to the preliminary preparation and investigation of Norwegian as well as Swedish affairs, the regulations in force in each of the kingdoms shall be observed.

At the meetings of the interim Government the Norwegian business shall be introduced by the Norwegian Minister of State, and entered upon the minutes and dispatched in the Norwegian language, and the Swedish business shall be introduced by the member of the Swedish Ministry to whose department they belong, and entered upon the minutes and dispatched in the Swedish language.

Business that concerns both kingdoms, that does not by its nature belong to the affairs of any special department, shall be introduced by the Minister of State for Foreign Affairs, and shall be dispatched to each of the kingdoms in their respective languages, to Norway by its Minister of State, and to Sweden by the aforesaid Minister.

Diplomatic business shall also be introduced by the Minister of State for Foreign Affairs, and be entered in separate minutes.

The business shall be disposed of by a majority of votes, and, when the votes are equal, the vote of the president shall decide the question.

All resolutions that are to be dispatched shall be signed by each and all of the members.

The joint Council of State (the interim Government) shall have its seat in Stockholm.

The Norwegian Minister of State [in attendance upon the King at Stockholm], and the Swedish Minister of Justice, shall, at the first meeting of the two Councils of State, cast lots as to which of them shall take the chair.

According to the order first settled by this casting of lots, the chairman shall afterwards be changed every eighth day, so that each of the Ministers of State, the one after the other, and only for a week at a time, may take the chair.

On all occasions when, according to the Constitutions of Norway and Sweden, the government of each kingdom is conducted by the Council of State, the joint Council of State of the two kingdoms shall meet in equal numbers and on the basis hereinbefore mentioned.

8. The election of guardians, who shall carry on the government for the King during his minority, shall take place according to the same regulations and in the same manner as already prescribed in § 3 for the election of a successor to the Throne.

9. The persons who in the above case are conducting the government shall take the following oath:

«I promise and swear to carry on the government in accordance with the Constitution and the laws, so truly help me God and His Holy Word!»

The Norwegians shall take the oath before the Storthing of Norway; the Swedes before the Estates of the kingdom of Sweden.

If the Storthing or the Riksdag is not sitting at the time, the oath shall be delivered in writing to the Council of State, and be repeated afterwards to the next Storthing or Riksdag.

10. The conduct of the King's education during his minority shall be determined in the manner prescribed in § 8.

It shall be an invariable rule that the King, during his minority, be given sufficient instruction in the Norwegian language.

11. If the Royal family in the male line becomes extinct, and no successor to the Throne has been elected, then shall a new Royal house be chosen in the manner prescribed in § 3.

12. As the provisions contained in this Rigsakt [Act of Union] are partly repetitions of the Constitution of Norway and partly additions thereto on the basis of the authority given for that purpose to this Storthing in the Constitution, they shall, so far as Norway is concerned, have and retain the same power as the Constitution of that kingdom, and cannot be altered except in the manner prescribed in § 112 of the same.



INDEX

- Aaklæder 579.
Aall, J. 499.
Aanrud, H. 513.
Aasædesret 309.
Aasen, I. 499. 502.
Abstinence societies 208.
Academy of music 619.
Accidents 223.
— insurance act 212.
— — company 259.
Act of Union 144. 153. 165.
Administrative organisation 185.
Aftenbladet 518.
Aftenposten 519.
Age-classification 93.
Agricultural budget 330.
— college 330.
Agriculture 307 seq.
— measures to benefit 329.
— proper 312.
Aldermen (formænd) 189.
Allotment 310. 330.
Almenninger 347.
Alpine forms 27.
Amter 186. 188.
Amtmand 186.
Amtsskoler 278.
Andersen, T. 513.
Animal life 70 seq.
Anthropological types 81.
Anthropology 79 seq.
Arable soil 307.
Arbeiderakademier 279.
Arbo, P. N. 543.
Archæan 35.
Architecture 597 seq.
— non-ecclesiastical 612 ill.
— wooden church 608 ill.
Archives 288.
Arctic animals 70.
— fisheries 370.
— plants 62.
— stone age 122.
Are Frode 487.
Area 1. 127.
— distribution of 307.
Arms and equipment 300.
Army 295 seq.
— administration 298.
— budget 302.
— division 299.
— organisation 295.
— strength 301.
Arnold, C. 620.
Art and industrial school 293.
Artisans 400.
Art-music 619.
Asbjørnsen, P. Chr. 481. 500.
Askevold, A. 544.
Baade, K. 532.
Backer, Harriet 563.
Bætzmann F. 518. 520. 521.
Ballads 490.
Band of desert land 3.
Bank fishery 363.

- Bank of Norway 231. 251.
 Banking 251 seq.
 Bans 296.
 Barlag, Ph. 564.
 Barth, C. W. 564.
 Bathing establishments 228.
 Beacons 439.
 Behrens, J. D. 626.
 Bennetter, I. I. 543.
 Berg, G. 571.
 — M. E. 584 ill.
 Bergslien, B. 590 ill.
 — K. 543.
 — N. 564.
 Bernadotte 137.
 Berner, H. E. 520.
 Bible Society 264.
 Birch 340.
 — zone 61.
 Bird fauna 74.
 Births 110.
 Bjørnson, Bjørnstjerne 501. 518. 520.
 Blind 102.
 — asylums 289.
 Bloch, A. 567.
 Blytt, A. 59.
 Board of guardians 215.
 — — health 230.
 — — inspection 268.
 Boats 356. 363. 460 ill.
 Bøe, F. 543.
 Bogs 64. 349.
 Borch, C. 586.
 Boreal tree region 59.
 Borgen, F. 567.
 Botner (corries) 27.
 Bratland, J. 572.
 Bredal, N. K. 494.
 Breweries 397.
 Bronze age 123.
 Brun, J. N. 494.
 Budal, H. 590.
 Budstikken 516.
 Bugge, S. 513.
 Buildings on farms 326 ill.
 Bull, J. B. 511.
 — O. 624.
 Bygdealmening 347.
 Cambrian, silurian and devonian 39.
 Canals 458 ill.
 Capelan-fishery 363.
 Cappelen, Chr. 619.
 — H. A. 540 ill.
 Carl Johan 138. 165.
 Caspari, Th. 511.
 Castberg, O. 595.
 Cattle 317 ill.
 Cereals cultivated 313.
 Chemical industry 398.
 Chemists 229.
 Christian III 134.
 — IV 135.
 — August 137.
 Christian Frederik 139. 164.
 Christiania-Posten 518.
 Church, organisation 260 seq.
 Churches and churchyards 264.
 Citizenship 184.
 Clausson Friis, P. 490.
 Clergy 262.
 — widows pension fund 262.
 Climate 451 seq.
 Coast traffic 460.
 Cod-fisheries 355.
 Cod migrations 355.
 — preparation of 359. 365 ill.
 Colban, M. 509.
 Collett, C. 500.
 — Fr. 548.
 Commerce and shipping 403 seq.
 — by land and sea (diagramm) 7.
 Commercial legislation 436.
 — towns 406. 432.
 — treaty with Sweden 394.
 Commission of conciliation 197.
 Committees 181.
 Common ownership of land 310.
 Commons 347.
 Communication, means of 442 seq.
 Confessions 260.
 Conifers 59. 336 chart.
 Conscripts, training of 296.
 Constitution 170.
 — day (17th May) 147.
 Constitutionelle, Den, 517.
 Continuation schools 277.

- Convention at Moss 142.
 Co-operative societies 436.
 Copper mines 41. 381.
 Corporate system 389.
 Cotters' places 312.
 Council of state 172.
 Country houses 326 ill. 613 ill.
 County 186. 188.
 — councils 195.
 — school board 268.
 — schools 278.
 Courts 198.
 Criminal children 290.
 — conditions 209.
 Cultivation fund 331.
 Currency 441.
 Customs duties 236.

 Daa, L. Kr. 518.
 Dagbladet 520.
 Dahl, H. 547.
 — J. Chr. 526 ill.
 — S. 543.
 Daily fisheries 370.
 Dairy industry 320.
 Dano-Norwegian language 482.
 Dass, P. 478. 490.
 Day, length of 45.
 Deaf and dumb, number 102.
 — schools for, 289.
 Debt, national 231. 241.
 — — of the Dano-Norwegian mo-
 narchy 145. 168.
 Defence of the skjærgaard 304.
 Defences, state expenditure 240.
 Dentists 229.
 Departments 185.
 Destitute and criminal children 290.
 Devonian 39.
 Diesen, A. 548.
 Dietrichson, L. 513.
 — Mathilde 543.
 Diocesan committee 262.
 Diplomatic matters 150. 157. 167. 174.
 Diriks, E. 567.
 Disablement insurance 213.
 Diseases, chronic 225.
 — epidemic 223.

 Dissenters 101. 260.
 Domestic industry 391. 401.
 Dovre 13.
 Dress articles industry 398.
 Dybfest, A. 512.

 Earth and stone industry 397.
 Ecclesiastical division 261.
 — organisation 260 seq.
 Eckersberg, J. F. 540.
 Economic conditions 203.
 Edda 488.
 Education 266 seq.
 — higher 280.
 — secondary 280.
 Egedius, H. 575.
 Egge, P. 513.
 Eiebakke, A. 571.
 Ekenæs, J. 564.
 Elections, municipal 189.
 — political 179.
 Elementary instruction 266.
 Elling, C. 618. 625.
 Elster, Kr. 509.
 Embroidery 576 ill.
 Emigration 119.
 Ender, A. 548.
 Enlisted troops 297.
 Erosion 13.
 Expenditure of the state 232. 239.
 — — the municipalities 246.
 Export 406. 409. 410. 413.
 — fishery products 409. 413. 426.
 — forest products 340.
 — industrial products 387. 424.
 Exported goods 424; diagr. 428.

 Factories, distribution of 399 ill.
 Factory industry 391. 395.
 Fairs 436.
 Fairy-tales 491.
 Fanden, H. 584.
 Farms 311.
 — buildings 326 ill.
 Fearnley, Th. 531 ill.
 Fecundity 113.
 Female students 287.
 Finances 231 seq.

- Finlanders 83.
 Finne, G. 512.
 Finns 82. 84.
 Fire insurance 257.
 Fish export 409. 413. 426.
 — fauna 73.
 — manure 363.
 — tithes fund 262.
 Fisheries 351 seq.
 — «daily» 370.
 — fresh water 373.
 — periodic 355.
 — sea 352.
 Fishermen, receipts of 351. 359.
 Fishery investigations 375.
 — legislation and administration 374.
 Fishing-gear 352. 356. 368.
 — stations 353 ill. 356.
 Fiskever 353 ill. 356.
 Fjord fauna 71.
 Fjords 14. ill. 15. 29.
 Fladager, O. H. 590.
 Flag 149. See Map.
 Flour-mills 397.
 Fog 50. 53. 56.
 Folkehoiskoler 278.
 Foreign commerce 404. 406. 417. 429.
 — shipping 434.
 Foreigners 101.
 Forest legislation 346.
 — planting 347.
 — trees 332.
 — work 341.
 Forestry 332 seq.
 — administration 347.
 — schools 347.
 Forests 332 ill.
 — ancient 345.
 — production 338.
 — public 347.
 Fortresses 299.
 Fresh-water fisheries 373.
 Frich, J. C. G. 532.
 Friele, Chr. 51. 519.
 Fund for the advancement of education 261.
 — — buying land 331.
 Fundamental law 170. See Appendix.
- Funds under administration of the Ecclesiastical Department 261.
 — for the promotion of science 288.
 Galdhøpiggen 10.
 Garborg, A. 509. 521.
 Geographical situation 1 seq.
 Geological survey 44.
 Geology 34 seq.
 Glaciers 14 ill.
 Glens («skar») 26.
 Gløersen, J. 563.
 — Kr. 509.
 Glosimodt, O. O. 590.
 Görbitz, J. 532.
 Government 172.
 Granskeren 518.
 Grieg, E. 621.
 Grimelund, J. M. 548.
 Grøndahl, Agathe 624.
 — O. A. 626.
 Grønvold, B. 564.
 — M. 548.
 Ground register 308.
 — rent fund 262.
 Gude, H. 539 ill.
 Gulbranson, Ellen 624.
 Gymnasium 281.
 Haarklou, J. 620.
 Hagerup—Gram ministry 160.
 Hail 50. 53. 56.
 Halvorsen, J. 625.
 Hamsun, K. 512.
 Handicraft 388.
 Handicrafts schools 293.
 Hansards 388. 406.
 Hansen, H. 589.
 — M. 499.
 Hansteen, Aasta 543.
 — N. 567.
 Harald Haarfagre 128.
 Harbour administration 438.
 Heiberg, G. 511.
 Henum, J. 625.
 Herreder 188.
 Herring fisheries 364.
 — migrations 367.

- Heyerdahl, H. 552 ill.
 High Court of the Realm 183.
 Higher education 280.
 Highland 9 ill.
 History 127 seq.
 Holberg, L. 478. 491.
 Holiday courses 274. 284.
 Holmboe, T. 572.
 Holter, I. 623.
 — W. 564.
 Horses 316 ill.
 — for the army 300.
 Horticulture 316.
 Hospitals 227.
 Households 91.
 Hunting 376 seq.
 Husmænd 312.

 Ibsen, H. 483. 501.
 Illegitimate births 112.
 Imbecile children 289.
 Immigration 118.
 Imported goods 421; diagr. 423. 424.
 Income, annual 203.
 — from agriculture 311.
 — — fisheries 351.
 — — forests 348.
 Income tax 235.
 Industrial arts and sculpture 576 seq.
 — population 386. 398.
 — schools 293.
 Industry 386 seq.
 — development of 387.
 Infirmaries 228.
 Inhabitants, number 85.
 Insects 73.
 Instruction, elementary 266.
 — obligatory 267.
 — voluntary 269.
 Insurance 257 seq.
 International position 161 seq.
 Iron age 124.
 Islands 21.
 Ivory work 583.

 Jacobsen, C. L. 590.
 — S. 544.
 Jæger, H. 509.

 Janson, Kr. 507.
 Jensen, P. A. 500.
 Jørgensen, S. 568.
 Johnsen, Hj. 567.
 Jordet, L. 572.
 Jotunheimen 9.
 Journalists, associations of 523.
 Judges 197.
 Judicial organisation 196 seq.
 Jurassic 42.

 Kalmar union 134.
 Keyser, R. 499.
 Kielland, A. L. 508.
 — Kitty 563.
 Kinck, H. 513.
 King, legal power of 172.
 Kittelsen, Th. 564.
 Kjerulf, H. 622.
 — Th. 500.
 Kjølén 13.
 Klipfisk 359. 365 ill.
 Knudsen, K. 481.
 Knutzen, M. 624.
 Kolstø, F. 567.
 Kongespeilet 488.
 Kongsberg silver mines 38. 380.
 Krag, Th. 512.
 — V. 512.
 Krohg, Chr. 556 ill.
 — Oda 572.
 Krone 441.
 Kvæner 84.

 Ladesteder 409.
 Lagthing 181.
 Lakes 25.
 Lammers, Thv. 624.
 Land frontier 3.
 Landsmaal 479.
 Landowners' right 309.
 Landstad, M. B. 501.
 Landstorm 296.
 Landvern 296.
 Lange, Chr. 499.
 Langfjeldene 12.
 Language 474 seq.
 — Danish in Norway 477. 484.

- Language Dano-Norwegian 482.
 — popular 478.
 — spoken and written 481.
 Læppland 4.
 Lapps 82.
 Lassen, H. 513.
 Læsson, P. 625.
 Leather and india-rubber industries 397.
 Legislative assembly 178.
 Lensmænd 187.
 Leprosy 226.
 Lerche, V. St. 543.
 Letters dispatched 469.
 Lexow-Hansen, S. 595.
 Libraries, public 279.
 Lichen zone 61.
 Lie, B. 513.
 — J. 507. 520.
 Life insurance 258.
 Life-saving stations and boats 440.
 Lighthouses 439.
 Lindeman, L. M. 617. 619.
 Line troops 296.
 Literature 486 seq.
 Liver-oil 360.
 Loading-places 409.
 Løchen, A. 514.
 Lofoten fishery 355. 356.
 Løken, Hj. 521.
 Løland, R. 511.
 Longevity 223.
 Long-line fishing 356 ill.
 Loose deposits 31.
 Lunatics 226.
 Lyngen 28 ill.

 Machinery industry 396.
 Macquerel fishing 369.
 Madsen, Th. 512.
 Magistrate 187. 191.
 Magnus Lagabøter 133.
 Mammals 76.
 Marine insurance 258.
 Marriages 107.
 Match factories 393. 398.
 Matrimonial state 95.
 Meadow cultivation 315.
 Means of communication 442 seq.
- Measures 441.
 Medical department 230.
 — profession 229.
 Meidell, D. 518.
 Men of war 304.
 Mentally diseased 102.
 Mercantile crew 436.
 — marine 404. 409. 411. 412. 414. 415.
 — schools 294.
 Merchants and tradesmen 435.
 Metal industry 397.
 Meteorological institute 57.
 Michelsen, H. 585.
 Middelskole 281.
 Middelthun, J. O. 586 ill.
 Military colleges 298.
 — training 296.
 Militia system 295.
 Milk-condensing 325. 397.
 Mining 380 seq.
 Ministry 172.
 Minor industries 387. 401.
 Missions 264.
 Moe, J. 481. 500.
 Mohn, H. 57. 375.
 Molluscs, land and freshwater 72.
 Morality 208.
 Morgenbladet 517. 519.
 Mortality 114. 223.
 Mortenson, I. 511.
 Mortgage bank 253.
 Mountain outfarms 325 ill.
 Müller, J. 572.
 — M. 543.
 Munch, Andreas 500. 517
 — Anna 513.
 — E. 571.
 — P. A. 499.
 Municipal budget 194.
 — commissions 193.
 — councils 188.
 — elections 189.
 — finances 246.
 — organisation 188 seq.
 Munthe, G. 560 ill.
 — L. 544.
 Museums 287.
 Music 617 seq.

- Raised beach line 32.
 Randers, K. 511.
 Reindeer 319 ill.
 Reissiger, F. A. 626.
 Religion 260.
 Revenues of the treasury 232. 235.
 Richter, O. 156. 518.
 Rigsret 148. 155. 183.
 Roads 442 ill.
 Roe 363.
 Root crops 314.
 Røros coppermine 41. 381.
 Ross, Chr. 548.
 Royal Society for Norway's Welfare 330.
 — veto 154. 175.
 Rural districts 188.
 Rusten, O. 564.

 Sæter 325 ill.
 Sagas 487.
 Sailing-vessels 460.
 Salmon fisheries 369.
 Samlag 206.
 Sanatoria 228.
 Sanitary conditions 223 seq.
 — measures 227.
 Sars, G. O. 375.
 -- J. E. 513.
 Savings banks 254.
 Schibsted, A. 520.
 Schjelderup, G. 625.
 School board 267.
 — buildings 270.
 — districts 269.
 — inspection 268. 283.
 Schools 266.
 — art and industrial 293.
 — continuation 277.
 — county 278.
 — for deaf and dumb 289.
 — — defectives 289.
 — forestry 347.
 — handicrafts 293.
 — mercantile 294.
 — night 277.
 — people's high 278.
 — primary 266.
 — special 291.

 Schools technical 291.
 Schweigaard, A. M. 499. 517.
 Scientific societies 288.
 Sculpture 585 seq.
 Sea fisheries 352.
 — marks 439.
 — weeds 68.
 Seal hunting 370.
 Seamen 436.
 Secondary education 280.
 Selmer, Chr. Aug. 155.
 — J. 623.
 Sexes 92.
 Sheep 319.
 Shipping (see Mercantile Marine) 403 seq.
 — towns 433.
 Shipwrecks 440.
 Shore-line, length of 1.
 Signal-stations 305.
 Silurian 39.
 Silver work 580 ill.
 Sinding, Chr. 624.
 — Elisabeth 564.
 — O. 548.
 — S. 590 ill.
 Sivle, P. 511.
 Skavlan, O. 513.
 Skeibrok, M. 595 ill.
 Skjærgaarden 18 ill.
 Skolehjem 291.
 Skolestyret 267.
 Skram, Amalie 509.
 Skramstad, L. 548.
 Skredsvig, Chr. 563.
 Skrei fishery 356 ill.
 Smith, C. F. 564.
 Smith-Hald, F. 548.
 Snorre Sturlason 487.
 Snow 50. 52. 56.
 — and ice 28.
 Sobriety 205.
 Social conditions 202 seq.
 Socialism 151. 217.
 Soot, E. 568.
 Sørensen, J. 571.
 Sounds 21. 29 ill.
 Special schools 291.
 Spirits laws 206.

- Spruce 338.
 Stabbur 328 ill. 614.
 Stabell, A. B. 517. 519.
 Stadskleiv, T. 572.
 Stang, E. 156. 159.
 — F. 154.
 Stang-Gram ministry 156. 159.
 State forests 348.
 Statholder 144. 152. 154.
 Statsborgeren 517.
 Stav-churches 610 ill.
 Steam-ships 404. 415. 417. 463. 465.
 Steen-Blehr ministry 158. 160.
 Stenersen, G. 572.
 Stev 618.
 Stiftsdirektion 262.
 Stone age 121.
 — architecture 597 ill.
 Store-house 328 ill.
 Storthing 175. 178 seq.
 Strandings 439.
 Strøm, H. 568.
 Strømdal, G. 564.
 Sturla Tordsson 487.
 Sulitjelma coppermine 41. 382.
 Summer courses 275. 284.
 Sundt, E. 500.
 Sundt-Hansen, C. 544.
 Supreme Court 155.
 Svendsen, J. 622.
 Svensen, O. 624.
 Sverdrup, Johan 151. 156. 501. 520.
 Sverre Sigurdsson 132.
 Sømme, J. 572.
 — Lilli 572.

 Teachers 273. 284.
 Technical schools 291.
 Telegraph and telephone 470.
 Temperature 47. 50. 53.
 Terraces 31.
 Textile industry 396.
 — work 576 ill.
 Thaulow, F. 559 ill.
 Thellefsen, Th. 624.
 Thommessen, O. 514. 520.
 Thoresen, Magdalena 507.
 Thrane, W. 620.

 Thunderstorms 50. 53. 56.
 Tidemand, A. 536 ill.
 Tiden 516.
 Timber floating 341 ill.
 — industry 395.
 — trade 345. 408. 411. 413. 425.
 — workers 341.
 Tinning industry 397.
 Tobacco-factories 397.
 Topography 8 seq.
 Tordenskjold, P. 135.
 Torfisk 359.
 Tourists 466.
 Town privileges 409. 410.
 Training colleges for teachers 274.
 Treaties 178.
 Treaty of Kiel 139. 164.
 Trondhjem Cathedral 601 ill.
 — depression 4. 10.
 Tuberculosis 225.
 Tullin, Chr. B. 494.
 Tvedt, J. 511.

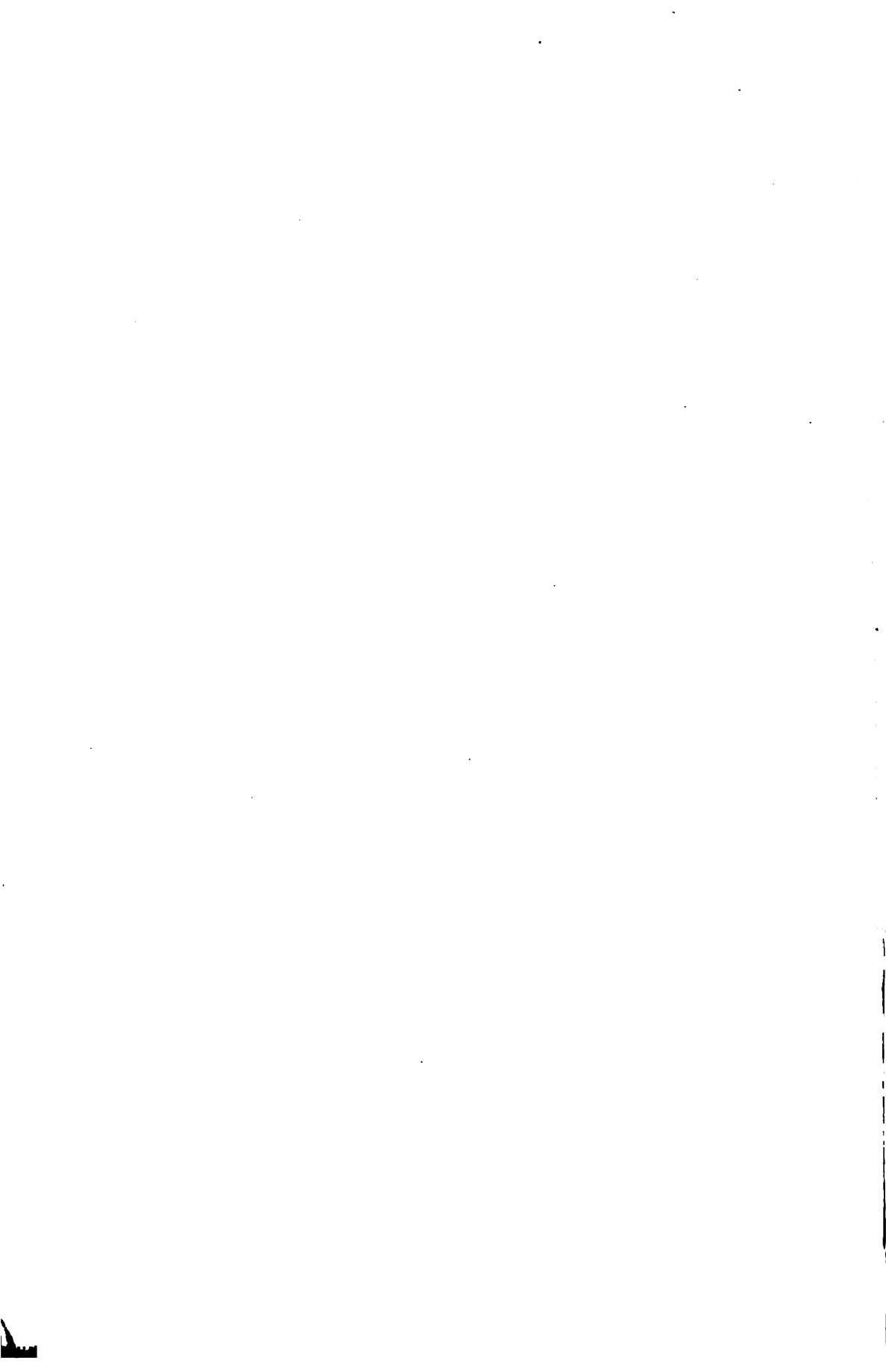
 Uchermann, C. 564.
 Udbye, M. A. 620.
 Ueland, O. G. 148.
 Ulfsten, N. 563.
 Unger, C. 499.
 Union with Denmark 134. 161.
 — — Sweden 134. 143. 165.
 Universal suffrage 179.
 University 138. 286. 495.
 — Library 287.

 Valleys 21. 26. 33 ill.
 Verdens Gang 520.
 Veritas 258.
 Vernepligtige 297.
 Veterinary matters 330.
 Vigeland, G. 596 ill.
 Vinje, A. O. 502.
 Vislie, V. 511.
 Vogt, N. 519.
 — N. C. 512.
 Voluntary instruction 269.
 Volunteer rifle corps 301.
 Vullum, E. 514. 521.
 Wages 204.

-
- Waifs and strays 290.
- War, Great Northern 1709—20 135.
— with Great Britain 1807—14 136.
— — Sweden 1814 142.
- War-vessels 304.
- Waterfalls 22 ill.
— as motive power 394.
- Wedel-Jarlsberg, H. 138.
- Weights and measures 441.
- Weisse, J. P. 513.
- Welhaven, J. S. 497. 500. 517.
- Wentzel, G. 567.
- Werenskiold, E. 555 ill.
- Wergeland, H. 481. 496. 517.
— O. 548.
- Wessel, J. H. 494.
- Wexelsen, C. D. 544.
- Whale fishery 371 ill.
- Willow zone 61.
- Wind 49. 52. 55.
- Winge, P. 625.
- Winter-Hjelm, O. 619.
- Woman's question movement 217.
- Wood-carving 580 ill. 583.
- Wood-pulp 393. 397. 426.
- Wooden church architecture 608 ill.
- Woodland 9.
- Working-men, protection and insurance
211.
- Working-men's associations 217.
— colleges 279.
— dwellings 216.
-

ERRATA

- Page 215, line 16, Omit «On the other hand . . . has to erect.»
— 216, — 7, — «Workhouses, . . . in sufficient numbers.»
— 379, — 20, Read: J. B. BARTH: *Norges Fuglevildt og Jagten*
paa samme.»
— 622, — 15, Sigurd Jorsalfar, read: Sigurd Slembe.



THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATION

