In some districts, recesses and dikes in the gneiss are filled with conglomerates and sandstones. The masses of eruptive granite form high and ragged mountains, often with grandly precipitous walls, the naked barrenness of which contrasts singularly with the fertile slate districts. In the great granite areas are a few marble strata surrounded by Labradorite; iron and copper pyrites, with much sulphur, are not uncommon; the strata of Silurian marble and other limestones may be 900 feet thick, occupying the uppermost part of the deposit, containing numerous fossils, as *favosites*, *encrinites*, *macra*, etc.

Of the Mesozoic formations, the Triassic, Jurassic, and Wealden are not found in Sweden. The Lias is found in the most southern part, in the neighborhood of Höganäs; the strata are quite thick, consisting of sandstone, clay slate, and plastic clay, with intervening strata of coal, the thickest of which is only four feet. This formation is poor in fossils, but a typical species, *Avicula inæquivalvis*, has been found.

The chalk occurs only in detached places in south-eastern and southern Sweden, the older strata consisting partly of whitish-gray limestone, containing numerous fragments of mussel-shells. In other places it is a sandy lime, with grains of green sand. The more recent strata consist of limestone, with chalk and flint nodules. Among the fossils found is a brachiopod (*Crania ignabergensis*).

No traces of Tertiary formations have been found in Sweden; the Post-tertiary period, however, there is of special interest to the geologist. The surface changes of the earth, which, from the end of the Silurian epoch, have occurred in the Old and the New World, have, as a general rule, not affected Sweden; the Devonian has left mere traces of its existence; the Mesozoic, in other countries so extensive and important, is found only in the southern part.

The Post-tertiary formations of Sweden and Norway show that, notwithstanding the great changes of surface experienced by the more southern portions of the European continent, the Scandinavian peninsula, up to comparatively recent times, has preserved nearly its ancient relative level above the sea, with the exception of the lias and the chalk in its southern

part. As on the American continent, at the beginning of the Post-tertiary epoch, the northern parts of Europe were elevated above the ocean, a diminution of temperature accompanying the increase of the land, which covered the whole country with ice—constituting the "Glacial period." Then came a subsidence beneath the sea, allowing the accumulation of marine, lake, and river formations, corresponding to the "Champlain epoch" of American geologists. An elevation of the land then took place—the so-called "Terrace epoch"—when the surface assumed the height and characteristics which we now see. The "Post-tertiary epoch," both in Europe and North America, was a period of high-latitude oscillations, as above stated—upward, downward, and again upward, and comparatively stationary.

The fields of loose soil, which occupy the plains as well as the valleys, river-basins, and many plateaus, are of two kinds: those which mark the sea-level, generally 500 or 600 feet above the present one, with clay and sandstone, are rich in marine shells and fossils of arctic seas, and show traces of old shore lines; the higher ones, with gravel and sand, but without large clay fields, contain no marine fossils.

It has been seen that the geological formations between the Carboniferous and the Post-tertiary are not found in Norway and Sweden, with the exception of the Lias and Chalk formations, which are found in Skåne and Blekinge, and of a few Mesozoic strata in one spot, in the extreme north of the province of Finmarken; that the Post-tertiary rests directly on the Palæozoic. The azoic rocks are more extended and thicker than in any other country of equal area. During the Glacial period the whole of Scandinavia was buried under the ice. The immense glaciers have left their marks in the furrowed land, striated rocks, deep valleys, extensive fjords, huge moraines, etc.; from the sea-level to almost the tops of the highest mountains, the rocks are grooved by striæ or scratches, their surfaces perfectly polished; the angular mountains have been rounded into *roches moutonnées*, and boulders are left even at the height of 5000 feet above the sea. Moraines—the accumulations of loose matter left by the melting and

retiring glaciers, composed of huge stones, angular rocks, gravel, sand, and clay—are met with everywhere, at various elevations, and high up on the mountain-sides.

When the inland ice melted, many valleys were left for a long time ice-filled; the glaciers retreated, however, higher and higher; and, where they for a long period remained stationary, their moraines formed a dam for the water, which increased in depth, allowing the quiet deposition of the clay beds, now found here and there in the valleys.

In different districts the materials of the soil vary according to the geological constitution of the mountains over which the glaciers ground their way; clay or lime predominating, as the case may be.

The period following the Glacial was that of the Roll-stone, or Sand-ridges, the beginning of the Champlain epoch of the American geologists, followed by the deposition of the diluvial clays. Such ridges are very common in Sweden; the most remarkable are at Badelundsås, near Westerås, and Brunkeberg, in Stockholm; the celebrated mounds at old Upsala are situated at the end of such a ridge. They are formed of several strata, the lowest consisting of gravel with rounded stones, and above these sand, with interjacent clays; their height above the surrounding country is 100 to 150 feet, and their direction generally north and south. Other deposits during this period are sand as a coast formation, or in shallow water; stratified marl, and clay without lime or magnesia, deposited in a deep, calm arctic sea; and black clay, with variations of blue and gray, belonging to a later period, when the sea began to assume its present limits. The sand is found directly on top of the glacial gravel, from which it differs by its stratification, and its apparently washed condition; the stratified clays, and in some places the stratified marls, constitute the lowest stratum: the fossil mussel (*Yoldia glacialis*) shows that the sea from which the clay was deposited was an arctic one.

The clay on top of the marl is black clay, which merges into the common clay; in this occur fossil shells, the same as those living in the Baltic, such as *Tellina baltica*, *Cardium edule*, and *Mytilus edulis*. Enclosed in these clays and sands

are found large stones, probably carried by icebergs and dropped into the strata under formation; the same is the case with so-called erratic blocks found in many places in Scandinavia.

In the upper clays and sand are found, especially in the western part of the country, beds of shells of species now living in the North Sea, or still farther north. Such a bed is seen at Kapellbacken, near Uddevalla, and contains *Pecten islandicus* and others.

CHAPTER XVIII.

THE FJORDS.

Fjords of Scandinavia.—Their Walls and Terminal Valleys.—Action of Glaciers.—Terraces, or Sea-beaches.—Phenomena and Causes.—Shore-lines and Sea-marks.—Rising and Sinking of the Land in Modern Times.—Cannot be used as a Measure of Time.—Professor Kjerulf's Views on the Subject.—Iceberg and Glacier Theories.—Unequal and Intermittent Movements, and Long Periods of Rest.—Changes in Climate, and in the Distribution of Plant and Animal Life.

As one sails along the peninsula of Scandinavia, and especially on the coast of Norway, he sees everywhere the deep narrow arms of the sea winding their way, often a hundred miles, amidst the masses of rock belonging to the oldest formations; these arms of the sea are called *fjords*. Those of Norway are far larger and more majestic than those of Sweden, and partake of the grandeur of the scenery characteristic of the country. As you gaze in admiration, almost with awe, at their walls, towering thousands of feet above the sea, the question naturally arises, What are the causes which have formed these wonderful channels? As the sea has no sweep adequate to produce them, the second thought might naturally be that some great convulsions of nature have led to their formation; but neither the sea nor geological catastrophes have been active agents in this case.

Invariably at the end of a fjord there is a valley, with a stream collecting the water from the mountain-sides; these valleys are in all respects the continuation of the fjord, only one is land, the other water, and both are cut out of the solid rock; the same is true of the branch or transverse fjords and dales.

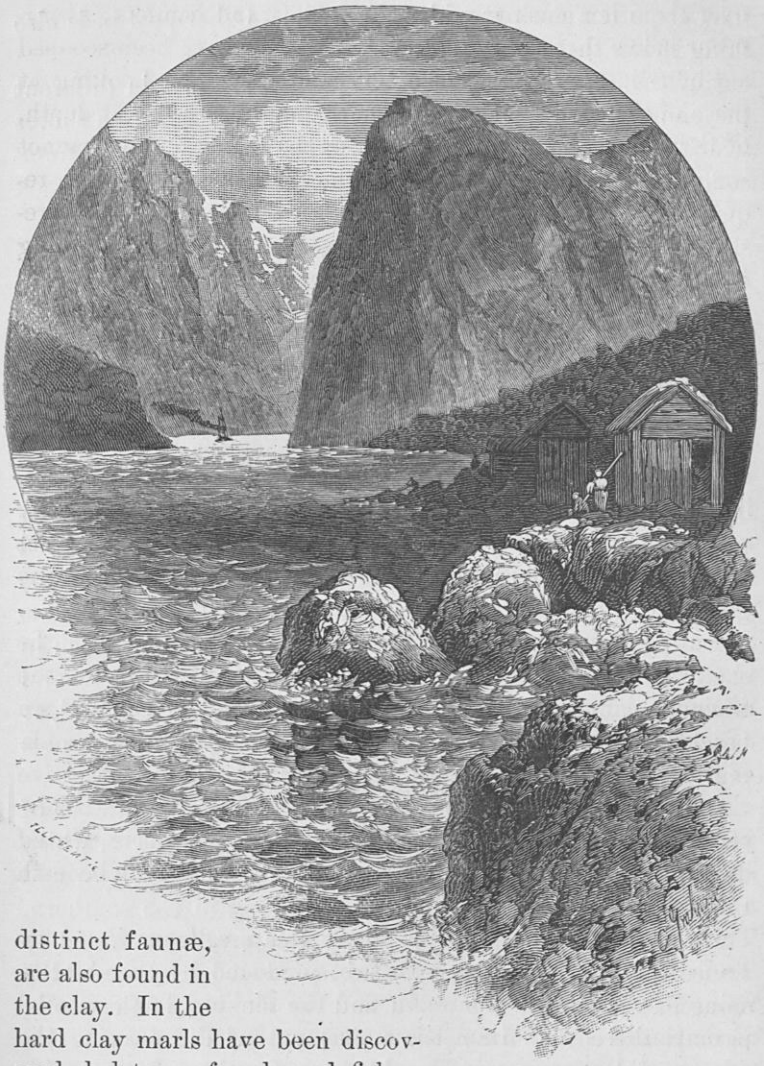
Everywhere you see the grooving, striation, and polishing due to the action of ice; numerous moraines, so extensive that

they are often covered with farms, fields, and hamlets; everything shows that the fjords, like the valleys, have been scooped out of the solid rock by the action of glaciers. Looking at the immense height of these walls, and adding the great depth, which is often equal to the height of the mountains, we cannot comprehend the vast periods of time that must have been required by the glaciers to do this work on their slow but irresistible march to the sea; and we get an idea, which nothing else can give us, of the tremendous power of water, in the form of ice, in modifying the surface character of the globe.

To this day there are in Norway glaciers at the upper end of the fjords coming down to the sea, silent but unimpeachable witnesses of the work they have accomplished, and are still continuing; as they retire, month after month, they leave on the rocks precisely the same marks which they did ages ago. Time, frost, and atmospheric agencies have obliterated in many places these ice-marks, and often the dirt and débris of centuries hide them from the common eye, while preserving them for the geologist.

Sailing along the fjords, the openings of the valleys, or the sheltered bays of the Norwegian coast, the attention of the traveller cannot fail to be attracted by the terraces, or sea beaches, rising one over the other in amphitheatre form, looking like broad gigantic steps. They suggest at once successive risings of the land, and different, more or less permanent, levels of the sea, into which the rivers and streams have carried down stone, gravel, sand, and clay, and spread them beneath the surface.

In many of the fjords are short steep valleys, whose entrance is barred by a terrace or two, surmounted by the blocks, stones, and sand of a moraine left by the preceding Glacial period; there are many lakes thus produced, following the course of the valley. The highest terrace, distinguishable from the moraine by its stratification, marks the oldest sea-level. Their height depends on the width of the valley, the amount of material deposited, and the duration of the subsidence; the oldest reach a height of 600 to 620 feet, and contain marine arctic fossils. Marine shells, and shell banks of two



A NORWEGIAN FJORD.

distinct faunæ, are also found in the clay. In the hard clay marls have been discovered skeletons of seals and fishes, and large peat beds occur in the plains. The lower and more recent terraces, from 50 to 150 feet high, contain fossils belonging to the present faunæ of regions below the polar circle on the coast of Norway. Immense banks of marine shells run parallel with the coast, and

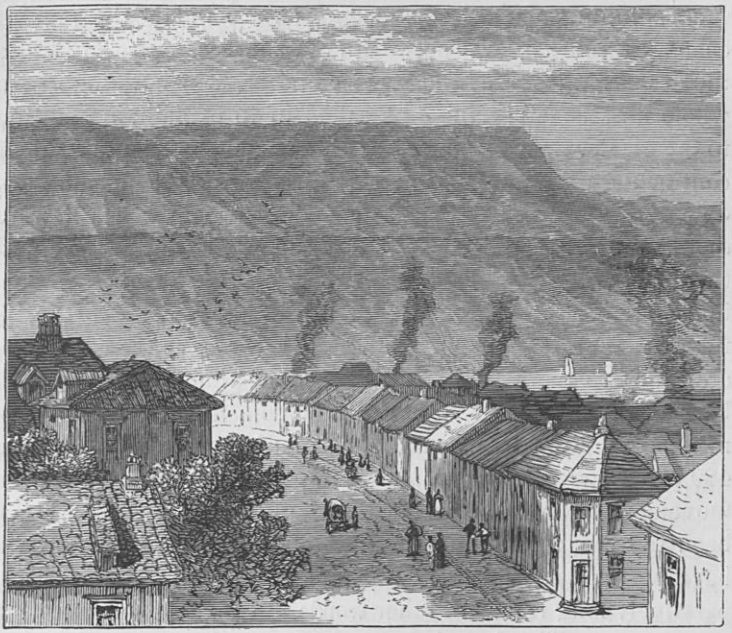
over them is a dark mould, as at Bodö. Other peat beds also occur below these later terraces.

Shore-lines, composed of cobble-stones, are met in different parts of the country; I have seen them on the northern shores of the Baltic, in the midst of coniferous forests, three in number, one above the other; also on the coast of Finmarken, back of Vadsö.

Sea-marks are seen on several points of the coast of Norway. I have particularly noticed them near the city of Trondhjem, where they are found at a height of 462 to 516 feet; near Stensö, on the Stavanger fjord; in Öster fjord, 138 feet above the sea; and also in Alten fjord. These marks do not correspond exactly with the height of the surrounding terraces, and must have been produced by the action of the waves, and would be much more common had not time and frost obliterated them in many places. The terraces, the shore-lines, and the sea-marks point to the great rising of land during the so-called "Terrace epoch," and to long periods of repose. But, if the above-mentioned facts indicate the upheaval of land just before the present era, there is also proof that there has been in some districts a subsequent local sinking. There are several distinct submerged steep beaches on the island of Gotland, at a distance from the present cliffs, which, owing to the clearness of the water, can be distinctly seen from the shores.

Observations have been made in Sweden for a number of years, in the Baltic, by inserting marks in the rocks, which show that the land in the northern part rises about two and a half feet in a century, while it is sinking in the southern. There is a remarkable ridge along this sea, from Ystad to Trelleborg and Falsterbo, no doubt produced by the sudden rising of the land in the north and the sinking in the south, accompanied by an immense movement of the ocean; this ridge would cause a wide sea between Southern Scandinavia and Northern Germany. Anterior to this these two portions of land were connected as a continuous continental area, across which plants, animals, and man migrated; the southern part being the lowest, the northern, still covered with ice, would be the first occupied by man—probably by a race of hunters.

As far as present data are concerned, all attempts to approximate closely to the number of years required to produce these results are unsatisfactory, as the uprising and sinking movements have been found unequal, and indeterminable periods of almost perfect repose or very slow upheaval have intervened. Estimates based upon modern observation show only that a vast period of time must have elapsed, without giving us any positive information.

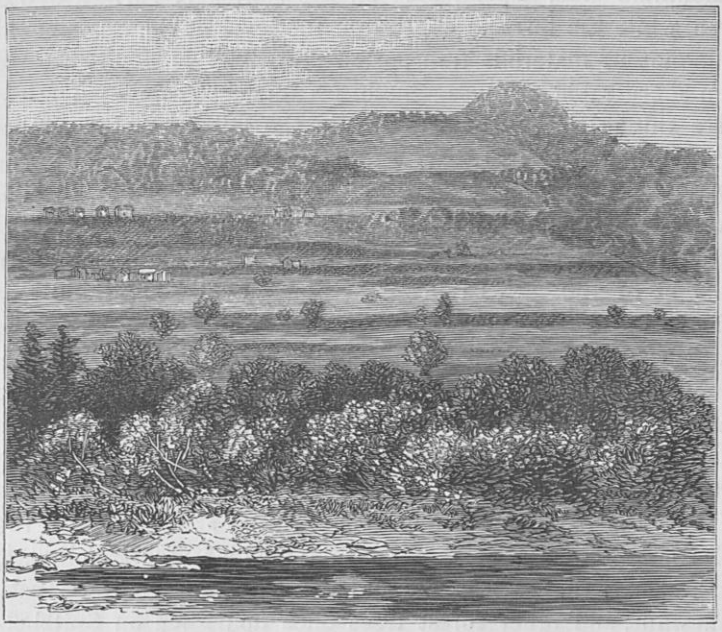


SEA-MARK NEAR TRONDHJEM.

The theory of the uninterrupted movement of the land, and consequently the calculations based by some geologists on the upheavals as a measure of time, have been denied by the eminent geologist, Theodor Kjerulf, Professor of Geology in Christiania, and author of the best geological map of Norway. His theory is set forth in a discourse on "The Upheaval of Scandinavia Considered as a Measure of Time," delivered at the meeting of the Scandinavian naturalists at Copenhagen,

in July, 1873, as follows, in a condensed form: "It is beyond dispute that the Scandinavian peninsula, at any rate in Sweden, is rising irregularly, but with extreme slowness: that a similar elevation has taken place in geological times, is clearly shown by the marine shells, clays, sands, skeletons of whales, terraces and shore-lines now seen at considerable heights above the present level of the sea, and at a distance inland." And again he says, "The highest marks on the mountains or in the valleys are the dividing lines on the dial of time, denoting the beginning of fresh movements; the hand is the present change of mutual level between land and sea." According to the iceberg theory of the glacier epoch—which, though as a whole unsatisfactory, must be called in to explain, in addition to the glacier theory, some of the phenomena on the borders of continents, and especially in Scandinavia—this peninsula sank down slowly under the arctic ice, the surfaces beneath were scored and grooved by the submerged and grounded bergs, and then the land slowly rose again to its present level. Accordingly, the measure of the present upheaval is, on an average, 2½ feet in a century, or 600 feet in 24,000 years; as the groovings are found to the height of 6000 feet, the time required would be 240,000 years; and, as the theory demands a double movement—a sinking and a rising, each of 6000 feet—we have 480,000 years required, and this on the supposition that the movement has been uninterruptedly equal. But this has not been the case; proofs are innumerable in Norway that there have been relatively quick movements alternating with comparatively long rests—in other words, unequal and intermittent movements. The fact that the drift contains no marine fossils; the uniform direction of the grooves, as a rule, and their immense numbers; and that a depression would have caused a warmer, and not a colder climate, are in favor of the glacial, and against the iceberg theory. The oldest shell-banks, containing fossils of a more arctic character than the present, are all high—about 500 feet above the sea; there are more recent ones, with fossils like those now living, between 100 and 150 feet above the sea: they are not found at all levels, but only at a few and certain ones. We see, in fact, "steps of movement,

and relative times of repose, under which those mighty masses of shells were heaped up on the coast at a certain level, and a start of movement may have followed."



TERRACES SHOWING FORMER SEA-LEVEL.

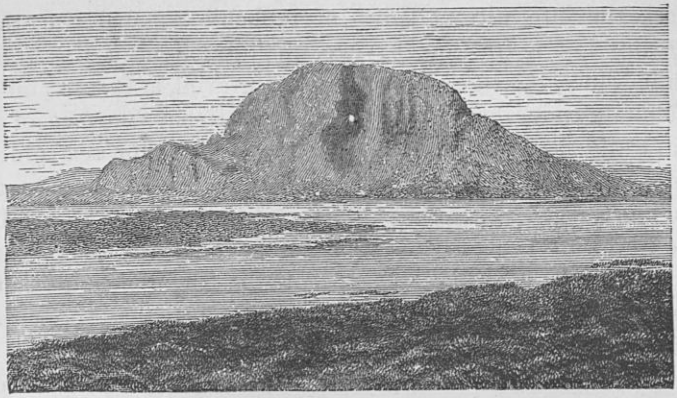
As to the terraces in the valleys, no open-lying ones are seen more than 600 feet above the sea-level, being made from the materials brought down by the rivers. Had the movement been uninterruptedly equal, there would have been formed a continuously declining plane instead of terraces; these last "are witnesses of a step, or start, in the movement; after that follows the relative rest." They extend only to the height of 600 feet, above which the groovings are made by glaciers, not by icebergs, so that no doubling movement is required, and no period of 480,000 years, but only 24,000 years, corresponding to an upheaval of 600 feet. "If we subtract," says the professor, "the height of the steps themselves, which express the proportionally quick change of level, and retain only the slowly declining, and apparently almost horizontal surfaces which

mark the intermittent times of probable gradual rise, there remains but a fraction, a very small fraction, of this time." Strand-lines, the signs of the beach engraved, as it were, on the mountain-side, depend only on the stationary surface of the sea, while the terraces depend on the level of the sea, and the amount of materials transported down the watercourses, and on more rapid changes—these are distinct from each other.[1] He thinks the geological time to the Glacial period cannot be more than 24,000 years, as the highest level belongs to the Arctic Sea. "This movement has gone on in steps, perhaps with weaker and weaker starts, till the present time."

On the island of Torgö rises the famous Torghatten to a height of 760 feet, having a natural tunnel 350 to 400 feet above the sea-level; its height varies from 64 to 289, and its width from 36 to 88 feet. The power that could have removed such a mass of stone must have been the sea. There are similar tunnels on Moskenæsö, Grytö, and Senjen.

The changes of climate are as wonderful. All over Scandinavia—even in the part beyond the arctic circle and North Cape—the fossils show unmistakably that at the close of the Tertiary period the polar regions enjoyed a temperate climate, as warm as that of England and France; ferns, coniferæ, oak, chestnut, and other forest trees once flourished on Spitzbergen, Beeren Island, etc.; and these, now frozen, lands presented features of soil and temperature which rendered them fit for the sustenance of terrestrial mammals, and for man, if he then lived in that part of the world.

After the Tertiary period the elevation of the land brought on a Glacial era, during which the forests gradually disappeared, and the animals moved southward; the climate became colder and colder, vegetation ceased, and, without means of subsistence, most animal life disappeared, leaving only the reindeer, musk-ox, and a few other arctic species, which may have been witnesses of the Glacial period. Even these, should the glaciers increase southward, must move to milder regions or perish.



TORGHATTEN SEEN FROM A DISTANCE.

TORGHATTEN TUNNEL.

CHAPTER XIX.

THE GLACIERS OF SCANDINAVIA.

Immense Fields of Perpetual Snow.—Fountain-heads of Glaciers.—How they are called.—Glaciers North of the Arctic Circle.—Glaciers South of the Arctic Circle.—Different Limits of Perpetual Snow.—Study of Birth and Growth of a Glacier.—Causes of its Formation.

Norway stands unrivalled in Europe for the number and the size of its glaciers, and its immense fields of perpetual snow. The latter are called by the Norwegians *snebræ*, *snefonn* (plural *snebræer*, *snefonner*), and by the French *névé*, that is, the fountain-head, the reservoir, the source of the glaciers.

The principal perpetual snow-fields found within the arctic circle are:

Jedki, on the island of Seiland, between lat. 70°–71°, the glaciers of which run almost to the sea.

Jökel, on the Kvænanger fjord, about lat. 79°, with glaciers running into the sea.

Alkavare, on the Kölen range, near lat. 68°.

Almajolos, east of South Folden fjord, lat. 67°–68°.

Sulitelma, east of Salten fjord, north of lat. 67°, situated on the Norwegian and Swedish frontier.

Svartisen, between Ranen and Salten fjords, the greater part of which is north of the arctic circle, is the second largest snefonn in Scandinavia, with a length of over forty-two miles, and covers a space of about sixty-two square miles.

Between the Lyngen and Salten fjords, along the coast, occur numerous snefonner, between lat. 67°–70°, which are not named either in books or on the maps.

South of the arctic circle are:

Oxtinder, just below the arctic circle, south of the Ranen fjord.

Börge snefonner, near lat. 65°, covering a space of twenty English square miles.

Sibmek, south of Börge fjelds.

On the Dovre group of mountains rises Snehætten, 7400 feet high; a little south of it, Skredshö, 7300 feet; north-west of these are the Nuns fjelds, Stenskolla, and Skrimkolla, rising to a height of 6600 feet, all of which are clad with mighty fields of snow.

The Surendals range, east of Christiansund and north of Dovre, has large snefonner.

The Sundal range, east of the fjord of the same name, has large snefonner.

The Romdals fjelds, the highest mountain of which is Storhögda, 6500 feet, possess large numbers of snefonner.

The Horning fjelds have large snefonner, which extend as far as Stryn.

The Justedalsbræen,* the largest of all the fonner of Scandinavia, is situated between the Nord fjord and the great Sogne fjord, and covers a space of eighty-two English square miles.

Lom's range, east of Justedal, with several snefonner.

The Lang fjelds, which include a number of mountain ranges, with snefonner.

On the Jotun, the wildest and highest group of Scandinavian mountains, are found numbers of large fields of perpetual snow.

The Hardanger range, with a row of large snefonner.

The Röldal and Hallingdal groups have several snefonner.

The Folgefonn, on Sörfjord, a branch of the Hardanger, is the most southerly snefonn, and covers fifteen English square miles.

There are, besides, numbers of small snow-fields scattered here and there.

The limit of perpetual snow varies: On the island of Seiland, in Finmarken, lat. 70° 30′, it is at 2880 feet above the

* Iceland has on its south-east side a still larger glacier, the *Vatnajökul*, covering a space of about 240 square miles.

sea; in the mountains of Dovre, lat. 62° 30′, at 5200 feet; on the peninsula of Justedal, on the north-west side of the principal ridge, in Lodalen; Nordfjord, lat. 61° 47′, 4030 feet; in Befringsdalen Julster, lat. 61° 32′, 3570 feet; in Lundedalen Julster, lat. 61° 32′, it is as low as in lat. 70° 30 in Seiland, 2860 feet; at the end of Esefjord Tjugum, lat. 61° 17′, 4070 feet; in Vetlefjorden Tjugum, lat. 61° 22′, 3580 feet; in Bojumdalen Fjærland, lat. 61° 30′, it is found lower than on the most northern part of Scandinavia, 2470 feet; in Langedalen Hafslo, lat. 61° 24′, 3360 feet; in Tunsbergdalen-Justedal, lat. 61° 30′, 4570 feet; in Justedal (inland), lat. 61° 34′, 4650 feet; in the Jotun fjelds, for that northern part south of Ottavandet, lat. 61° 40′, 4610 feet; in Folgefonn, with Eidesnuten, south-west of Odde Vand, lat. 60° 3′, 3440 feet; in Blådalsholmene, lat. 59° 55′, 3940 feet; in Gjerdesdalen, lat. 61° 8′, 2480 feet, but becomes higher as the glacier retires. The glacier coming nearest to the sea next after the Jökel is the Suphellebræen, on the Fjærland, the lowest border of which is about 175 feet.

The glaciers are found as far south as lat. 61° 20′. The configuration of the country and the climate of Norway are particularly adapted for the formation of snow-fields and glaciers. Almost all, if not all, the latter are found within the western range of the peninsula, not beyond the influence of the sea. Mountains are great condensers of the moisture brought by the winds from the ocean in the form of rain and snow, according to their height and the season of the year. The large fields of perpetual snow of Norway form immense plateaus, in which a peak or ridge occasionally shows itself.

The study of the birth and growth of a glacier impresses one with the vast amount of time required for its rise and progress. After a certain height, on some of the mountains, the snow which falls during the year never entirely melts; the amount remaining, to which new layers are added from year to year, in the course of time forms an accumulation of immense depth, the source of the glacier. If the weather were always cold, and the snow always crisp, the formation of a glacier would be impossible, as the fall of snow in the course of time

would attain a fabulous height. As a rule, great falls of snow always occur with a temperature a little below freezing-point. Heat is required for the formation of a glacier.

These snow-fields of Scandinavia during the summer months are under the influence of a powerful and long-continued sunshine, on account of their being so far north; and at that time the thaw of the ice and snow is very great. In the spring and beginning of the autumn great waste takes place from the rains; the water from the melting snow filters through the layers, and freezing cements the particles, and the lower layers are by pressure converted into solid ice. If the waste of the ice that melts every year exceeds the annual replenishment by snow, the glacier must naturally become smaller, and retires instead of advancing; if there is less waste by melting than the supply, then the glacier will advance. Advancing and retiring glaciers are found to this day in Norway, while for years past those of Switzerland are retiring. In Scandinavia the glaciers are more numerous and largest south of the arctic circle.

CHAPTER XX.

THE SOGNE FJORD.

The Sogne.—Entrance to the Fjord.—Depth of the Fjord.—Its Lateral Branches and their Depth.—Bönder on board of Steamers.—Third-class Passengers.—Valley of the Fjords.—The Fjærland Fjord.—Glaciers.—Leaving the Fjærland.—The Sogndal Fjord.—The Sogndal Valley.—Superb Fjord Scenery.—A Beautiful Cone.—The Lyster Fjord.

Of all the fjords of Norway none can rival in size, grandeur, bold outlines, weird and sombre landscape, the magnificent Sogne. No tourist should fail to sail upon its waters. The entrance, which is formed on the west side by the Sulen islands and others, and on the east side by the main-land, is at about 61°, and the main course winds its way inland almost directly east. The depth of the sea is remarkable. South of Yttre Sulen it is about 600 feet deep; farther inland, between Big Store Hilleö and Stevsundö, 1584 feet; a little farther up it diminishes to 1200 and 900 feet, and immediately south of Bö Church it attains the enormous depth of 3980 feet; north of Arnefjord Church, 3222 feet; at the entrance of the Aurland, 3766 feet; and just south of Kaupanger, 2964 feet. The branch fjords are much narrower, but their depth of water is also very great. The Sogndal, at its entrance, which is narrow, is 132 feet deep, but about midway is 1194 feet, thence becoming, near its end, 216 feet deep. The Lyster is at its entrance 2170 feet deep; half-way, 1176 feet; towards its end, 276 feet. Even in the Aardal and the Lærdal, which form the upper end of the Sogne, the sea in the former is 840 feet, and in the latter 780 feet. The average breadth of the Sogne varies from three or four to about two miles, and its length in a direct line is over three degrees of longitude, or a distance of about eighty-four miles, with its windings.

There are several lateral branches extending north and south, besides deep bays or coves. On the northern shore are the Vadeim and Fjærlands, the latter fourteen miles long; the Sogndal, ten miles, and the Lyster, twenty-four miles. On the southern shore are Brekke, the Arne, and the Aurland, the latter being sixteen miles long, with its branch, the Nærö, about six miles. No description can give to the reader an adequate idea of the magnificence of the scenery of these narrow lateral fjords of the Sogne.

On a beautiful day, at the beginning of July, I found myself for the second time in the quaint city of Bergen, waiting on the Square to hear the whistle of the steamer which was to convey me to the Sogne, my purpose being to stop at some convenient point on the way, and wander thence wherever my fancy might lead me. The sail from the city and back requires four days, and steamers start twice a week. The crowd began to gather, and boat after boat left the shore, loaded with people. After the usual confusion of a starting steamer, we got under way.

Leaving the city, the steamer winds its way northward for about sixty miles in the midst of wild scenery. The forepart of the vessel was crowded with passengers, mostly farmers and fishermen, going home with trunks, baskets, and hampers. The women and young people were especially lively, for many had been to Bergen for the first time, and were delighted with the city that had appeared so large to them. Such fine stores, so many pretty things, they had never seen before, and they had been buying a number of articles.

There is one thing a bonde will never do, no matter how rich he may be, and that is to buy a *first-class* ticket; for him money expended in such a manner is utterly wasted, over which he would mourn for a long time. Not that he is mean, for he is far from it; but he prefers to spend the money for value received—that is, to treat his friends on the passage. He has not the slightest inclination to mingle with the people of the cities, many of whom, here as elsewhere, look down on these tillers of the soil, making fun of their clothes and manners, and refusing to mix with them, even on the deck, through

fear that their standing in society might be lowered. Besides, if a farmer were inclined to take a first-class ticket, he would refrain from doing so, lest he should be ridiculed by his friends, who would think that he was putting on airs, and wanted to appear like a herre (gentleman). In fine weather the third-class or deck passage is good enough for him and his family; in case of storms or cold weather, he gives a sigh when compelled to take the second cabin, where he finds a comfortable shelter but no state-rooms; plain wooden benches and tables constitute the furniture, and upon these and on the floor they rest the best way they can. But the majority keep awake all night. The second cabin is usually filled with tobacco-smoke, through which you distinguish a very jolly crowd, who, with those on deck, certainly have the best time on board; they laugh and joke, play cards, eat, and seem bound to enjoy themselves before returning to the farm and hard work. Many are going home quite happy with their sales or purchases. The invariable question in Norway is, "How much does it cost?" for the people want to know the price of everything.

It was always a great pleasure to me to mingle with these bönder on board the steamers, and get an insight into their character — to do what they did, and be like one of them; many an hour have I thus passed pleasantly, and many a kind friend have I made in this manner.

The route to the Sogne fjord is among so many islands that it often seems as if you were sailing on a river; the scenery at times is extremely fine. The greater part of the country is uninhabited; now and then the sea is so completely land-locked that it appears as if the journey was ended, when suddenly comes into view an opening, and another broad expanse of water stretches in the distance; the channel is sometimes so narrow and tortuous that the vessel almost touches the rocks.

The steamers seldom come alongside a wharf, they simply lay-to. A large boat starts from the shore to bring in or take off the cargo. Numbers of smaller craft come with passengers, and take those who are to land—often an indescribable confusion takes place; the boats jolt against each other; the

people shout one to another; goods, horses, cows, sheep, passengers are going or coming at the same time trunks are passed up and down the narrow gangway. Here a party leap from boat to boat till they come to the right one—a man hurries back to recover something he forgot—a woman urges on her husband, who is still on deck, fearing that they may be left. An individual reaches the vessel in a profuse perspiration from the excitement produced by the fear of missing the steamer; he had in his haste tumbled down into a woman's lap, who, instead of getting angry, laughed heartily. From a boat men halloo in vain to the captain to stop. What I admired was the urbanity of all the officers. In the tumult, no matter how annoyed they may have been, no profane language from their lips fell harshly upon the ear.

In about six hours from Bergen the entrance of the Sogne is reached, where it is six or seven miles wide. Skirting the southern shore you pass a grand mass of rocks. The Sognefest (the castle of the Sogne) is very bold in its outline, and apparently forming two sides of a square. The scenery spread before the traveller is superb, a panorama ever changing in its views of snow-topped mountains: in the north the Justedal glaciers, towering mountains in the east, in the south the snowfields of Fresvik. The vegetation improves as you penetrate inland; the bases of the mountains and hills are clad with woods. On the northern side is a narrow fjord, on the shores of which, at its upper end, is the hamlet of Vadeim, with its white-painted houses and two or three farms. The steamer here stops at a wharf to land passengers and discharge cargo. Here a high-road leads northward to the Forde fjord and to the Julster Vand.

The valleys by the fjords are often quite fertile and well cultivated, contrasting singularly with the barren mountains which surround them. From the water they appeared to form an oval basin with a ravine at the end, towards which the mountain-sides sloped gently, evidently hollowed by the agency of ice and water. Sometimes two ravines entered the valley like radiating branches. At the base of the mountains the terraces rose one upon the other to the number of three or four.

At about sixty miles from its entrance the Sogne seems suddenly to end at the base of high mountains; it sharply turns northward, and the island of Kvamsö is passed, and a few miles farther the main fjord runs once more eastward, while to the north is the entrance of the Fjærland, the first large branch of the Sogne.

The steamer stops at the thrifty hamlet of Balholmen, opposite to which is Vangsnæs, the scene of Frithiof's "Saga." Sombre is the Fjærland with its mountains, glaciers, and its wild scenery. Streams fed by the melted snow and the ice run down on every side. In the mountains above are the Langedals and the Björne glaciers, rising to 4500 and 4780 feet above the sea. A little farther north, on the west side, are the Svære and Vetle fjords, between mountains, the highest of which, the Oatneskri, rises 5000 feet. At the end of the Vetle fjord there is a road of a few miles, leading to the great ice-field of Justedalfonn. As you sail farther inland still higher mountains loom up on both sides of the fjord—the Melsnipa, 5620 feet; the Gunvords and Stendals glaciers, 5200 feet. The water is of a peculiar opaque light green, showing the effect of the numerous streams from the ice. Three valleys diverge from the lowlands at the end of this fjord; the two most interesting are the Suphelle and the Boyum. The first is a long, narrow ravine, enclosed between rugged mountains; its glacier, about four miles from the sea, is fed from the slides of another, with which it has no direct communication, the masses of ice falling from a height of two or three thousand feet. The Boyum is west of Suphelle. The mountains are steep, with birch-trees to a great elevation, above which is the glacier.

In the year 1868 a large number of avalanches occurred in different parts of the country, occasioning loss of life and property. On the Fjærland, on the west side, one descended of such a size that it formed a bridge over the fjord—at that point five thousand feet wide—upon which the people crossed. If I had not been told this by several trustworthy persons, I would not have believed it, so incredible does it appear.

Leaving the Fjærland and again ascending the Sogne fjord, the scenery becomes more cheerful—woods, fields, and meadows, hamlets and farms, are more numerous; at the base of the mountains the woods crowning even some of the lower hills. Here is the hamlet of Fejos, while the Fresvik snow-field, rising 5000 feet, towers over all. On the northern shore, almost opposite, is Lekanger, the largest congregation of farms I had seen on the fjord. Two streams from the Grindsdal and Henjumdal—two valleys a few miles apart, both formed by the Gunvord glacier, 5000 feet above the sea-level—empty into the sea here, and give water-power to numerous grist-mills.

A few miles farther up, on the northern shore, is the Sogndals fjord, with its weird scenery, its fruitful tracts, and transverse valleys, over which farms are scattered. The sea here is also discolored by the streams from the glacier. In the mountains are found numerous sæters. The village of Sogndal possesses a number of houses, built close together, and here the steamers stop at a wharf. The population is about five hundred. The district is celebrated for orchards of apples, and also for its *gammel ost* (old cheese), which, when old enough, is the strongest known, and, after one gets accustomed to eat it, an excellent appetizer.

From the Sogndal the scenery of the Sogne is superb. On the northern shore rises Storehog, 3830 feet—opposite, Blejen, 5400 feet; and the fjord between them is about two miles wide and 2900 feet deep. Many of the mountains rising from the fjord are torn; in some places birch, fir, or pines are seen to a great height; a solitary farm, a saw or grist-mill, meets the eyes. Fifteen miles above the Sogndal fjord, on the northern shore, are the small hamlets of lower and upper Amble, and Kaupanger church. These are situated on the shores of a lovely bay, of oval shape. The lower hills slope gently towards the sea, and are clad with woods to their very tops; while groves of different trees, the elm, the linden, the birch, and other trees, grow here and there. Two beautiful streams fall into the sea, and on their banks are little grist-mills. Meadows, yellow fields, and patches of potatoes were scattered around the farms. On a sunny day the place is ex-

quisitely beautiful. How many of these picturesque spots one finds on the fjords: they burst upon you when least expected. A little farther, entering the Lyster fjord, one beholds a beautiful and extended panorama of mountains and water. Snow and glaciers meet the eyes in the higher regions; while a farm, a hamlet, or a church, shows that men live by the sea, in the midst of this grand and stupendous nature.

Some ten or twelve miles inland, on a promontory on the eastern shore, is Urnæs, from which an excellent view of the fjord presents itself, with its ranges of hills and spurs coming down to the sea. On the western shore, opposite Urnæs, is Solvorn, picturesquely situated in the hollow of the mountains.

CHAPTER XXI.

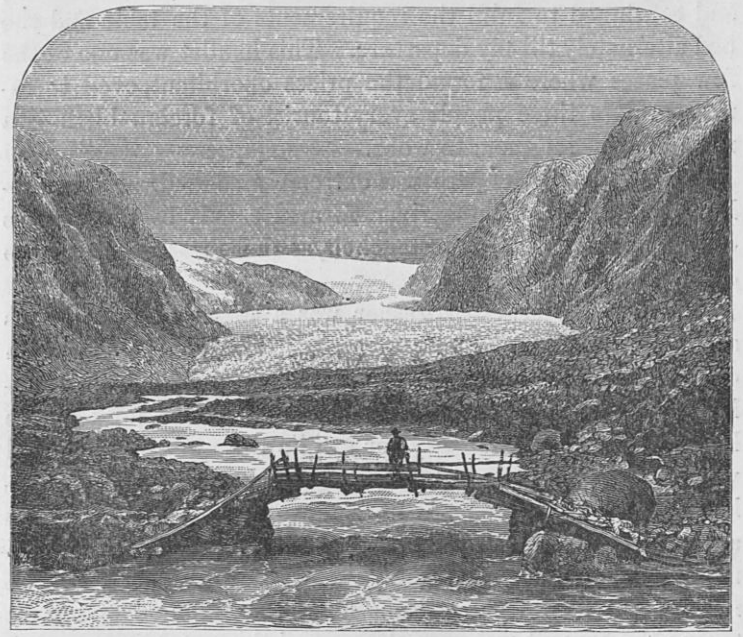
THE JUSTEDAL SNEBRÆER.

The Justedal Glaciers.—Vast Snow-fields.—The Justedal Valley and Church.—The Nygaard Glacier.—Faaberg.—Dirty Farm-houses.—Not Prepossessing.—Bed Sheets.—A Sæter.—Appearance of Lodal's Glacier.—A Superb Ice-cavern.—March of a Glacier.—A Glacier a River of Ice.—Motion of a Glacier.—Moraines.—The Stegeholt Glacier.

This field of snow, the largest in Scandinavia, covers a continuous tract of over eighty-two English square miles, its depth in many places reaching 1000 feet. It comprises the area bounded on the north by the Nord fjord, on the south by the Sogne, on the east by the Justedal valley, and on the west by the Sönd fjord. Its lower part is entirely fringed by glaciers, which flow in every direction. The glaciers in the Fjærland fjord are three miles inland; the extremity of the Boyum being about 400, and the Suphelle 160 feet above the sea. The backbone or rocky ridge of this mass of snow has an average height of 5000 feet, the highest point, lying between Stryn and Justedal valley (Lodalskaupos peak), reaching a height of 6410 feet in the eastern and 6110 in the southern part.

At the head of the Gaupne fjord, on the Lyster, is the valley of the Justedal, which derives its name from the great glacier which overtops its mountains. At the entrance is the hamlet of Röneid, with a comfortable inn, where horses can be procured. A narrow road, used as a bridle-path, and passable with a cariole for a distance of six or seven miles, leads to the end of the valley. About fourteen miles from Röneid stands the plain parish church of the valley, surrounded by a rough stone wall, and the humble church-yard with only a few wooden crosses. The adjacent parsonage has a small garden and a few patches of barley and potatoes, and may be said to be the only clean and comfortable place in the vicinity.

A few miles farther on is the Berset glacier, the first in the valley, and near it is the poor hamlet of Nygaard. From the deep-blue cavern at the base of this glacier flowed with great force a dirty stream into the valley, and close to the icy edge was a parallel line of boulders, stones, and sand, left behind by the retiring mass. Beyond this were several other transverse ridges, formed by similar deposits, showing that the glacier is fast retiring. Two or three little streams had worn channels in the ice, and water was trickling all along the sides.



NYGAARD, OR BERSET GLACIER, FROM THE BRIDGE.

After a pony ride of twenty-eight miles I came to Faaberg, the last hamlet of the valley, containing several well-stocked farms, and surrounded by verdant fields and meadows. The hills were clad with birches to a considerable height, while the upper part of the plateau was crowned with snow and fringed with ice. The comforts were very few, the houses uncleanly, and the fare very poor for those not accustomed to "rough it."

Fleas were abundant, as in a great many other districts of Norway, and here proved quite a plague. Most of the females were at the sæter, so that at the farm where I stayed the daughter of a neighbor came and prepared my meals, consisting every day of bread, butter, cheese, eggs, and milk. I was honored with a cotton table-cloth, which had been used before, as a large egg-spot of the size of my hand was unpleasantly apparent. That this table-cloth was used at night as a sheet on my bed over the hay was certain, as the large egg spot was there; in the morning this sheet did duty once more as a table-cloth, and continued to fulfil the requirements of the table and the bed alternately till my departure. This hamlet was one of the few places where I found the prices exorbitant, even to extortion. To these people every tourist of foreign birth is a mine of gold for them to work.

From Faaberg the path was extremely rugged. The ceaseless noise of the rushing river, formed chiefly by the glaciers of Björnesteg, Lodal, and Stegeholt, at times was so great as to drown the voice.

Above the Björnesteg glacier was a sæter with numerous small houses, and numbers of women and children were in charge of the sheep and the goats. The people were kind-hearted, and insisted on my taking a draught of milk before leaving. Winding our way for awhile through meadows and woods, we saw in the distance, at the end of the valley, Stegeholt and Lodals glaciers; the summit of the peak is 6410 feet above the sea. At the end of that wild valley was the usual moraine, with rounded stones, pebbles, and sand, left by the retiring glaciers. The streams from them divide and meet again; the current was very strong, and the water so dirty that our horses were almost afraid to cross. One would naturally think, not knowing the laws which govern the movement of a glacier, that a stream created by the melting of pure ice could only produce the clearest water; on the contrary, the very nature of a glacier prevents any other sort of stream, as has already been shown. In June, and even in the beginning of July, these streams are unfordable. The Lodal glacier was covered with dirt, stones, and débris from the mountain-side. Its cav-

ern was by far the finest and longest that I had seen, being about twenty-five feet wide; from it a turbid river rushed with great force. The beauty of this cavern cannot be adequately described—the blue color of the ice gradually became deeper, finally merging into an intense inky-blue. Owing to the great pressure, every air-bubble had been expelled, and the whole mass was clear and transparent; the cavern appeared like a tunnel cut through a mountain of sapphire. Unfortunately, I could not explore it, on account of the great depth and velocity of the water, as it ran between two stone ridges, split by the ice. The retiring glacier had uncovered part of a spur or hill of gneiss, which had obstructed its march, and which was split into several enormous parts, which were still in contact with each other. A considerable number of boulders were resting on the frozen mass, some supported on pillars of ice, which were prevented from melting by the protecting shade of the stones. In places the glacier was white, not from snow, but in consequence of the cracking of its surface and the numerous air-cells. It was easy to see that the Lodal had formerly been much lower down the valley, and that the transverse glaciers we had met on the way were once its lateral branches, the whole forming a single vast frozen river, reaching the sea, retiring, advancing, and again retiring. Thus the ice ground deeper and deeper into the rocks; the same marks were visible, left by that which had retired the year before. I heard a rumbling sound, and had hardly raised my eyes when a huge stone from the glacier rolled within a few feet of me, and I had hardly seated myself the second time when I saw another stone roll down, carrying with it in its flight several lesser ones.

A glacier is not an immovable mass, closely attached to the mountains, but a body slowly impelled forward by the immense pressure of the upper portions. On its way the mass slides down, grinding its rocky bed, thus deepening and enlarging its channel day by day; its silent power, overcoming all obstacles, carries with it whatever has been buried in the icy stream, such as stones that have fallen from the mountain-sides, earth, and sand, which combine to render the water turbid, and to

form the moraines. It has the character of a stream; it is a moving river of ice, fed from the Snebræer, or perpetual snow-fields above, modifying or creating its channel, eroding valleys, often covering vast areas—an agent of great destructive power.

The motion of a glacier, being due largely to expansion from the consequences of its melting, is slower at night than during the day, and in winter than in summer; the movement is greater in the middle than on the sides, where it is held in check by friction, and also more sluggish at the bottom than at the top. A glacier will accommodate itself to the sinuosities and unevenness of its bed, expanding or contracting like the waters of a river, and will precipitate itself over a ledge, making a cascade of ice: these I have seen in almost every glacier of Norway. The ice is often broken transversely, the moraines are engulfed in the crevasses and lost. The main glacial stream starts with a moraine on each side; long dark bands raised above the ice are formed by the stones and earth which have fallen down the side of the mountain, in the same manner as the heaps of stones and débris we find at the bases of mountains, and in many ravines and valleys. These lateral, or marginal, moraines vary in height, according to the amount of the deposits massed together, and to the time of their formation; they range from a few feet to twenty feet in height, but never much more, for there is no time for accumulation; the material is collected as the ice moves downward, and the motion of the Norwegian glacier may be a few hundred feet a year. These moraines stand in regular ridges, and are slowly and surely carried to the end of the glacier; their origin, by the materials, can often be traced back for great distances. As the frozen river moves onward, it is joined by others, all uniting in one solid mass; the moraines meet side by side, and remain distinct on the journey down. The number of these moraines indicates how many branch streams have united with the main trunk. Sometimes a glacier is compelled to make its way through a narrow defile; then the mass of ice contracts, and becomes deeper, and a grinding process takes place on the sides and at the base with immense force; many valleys with perpendicular walls have been formed in this manner.

Not far from Lodal is the very interesting glacier of Stegeholt, reached by again fording the Lodal River. The end of this glacier is narrow, and the ice comes through a contracted gorge, choked with large stones, which prevented me from seeing the terminal cavern. A bridge could easily have been built over the stream, but in those districts there is no one to undertake such a work, and no one to guide you over the ice.

On the left bank, to a certain height, birch-trees were abundant, and there was a dense growth of grass and weeds within a few yards of the ice. Here, also, I saw evidence that the ice had much diminished that year. Numerous large boulders, forming longitudinal moraines, were stranded along its sides. The crevasses indicated a powerful strain; through the cracks, which crossed the whole breadth of the glacier, you could see the deep-blue color, growing darker and darker with the increasing depth.

We have now given a description of retiring glaciers. Further on we will speak of those which advance with an irresistible power.

CHAPTER XXII.

Two Pleasant Acquaintances.—An Invitation to visit Krokengaard.—Arrival at the Farm.—A Venerable Host.—A Family Gathering.—A Lady from Holland.—A Game of Croquet.—Delicious Fruits.—A Gentleman's Home.—Life by the Fjord.—Industrious Families.—Scandinavian Hospitality.—Parting Dinner.—Farewell to Krokengaard.

On a warm July day I was crossing the Lyster fjord on my way to Krokengaard, on the eastern shore, almost opposite the Gaupne fjord, at the head of which is the valley of Justedal. There was not a breath of wind, nor a ripple on the sea; the rays of the sun fell upon the boat with great power, and my two boatmen were bathed in perspiration. Krokengaard stood at the foot of a high hill, and its buildings were surrounded by trees and golden fields of nearly ripe barley; fir and birch trees grew to a great height on the mountains, whose tops were hidden by fleecy clouds. The situation of this old homestead was well chosen, as there was no danger from avalanches of snow or rock.

My invitation to visit this place was characteristic of the hospitality of the country. A few days before, on board the steamer, I had made the acquaintance of two ladies—sisters; women can always travel safely alone in the country, and are sure of meeting with respectful consideration. I had been invited by them to visit their uncle, who, they were sure, would receive me with great pleasure; they seemed sorry for me, thinking that I must feel very lonely—a stranger in a strange land, travelling in almost uninhabited districts, living with the poorest people, eating coarse food, and enduring many hardships. The elder was a doctor's wife, living near Bergen, and, with her sister, was on her way to Krokengaard, their uncle's place, on a summer visit. Their last words to me, as they

stepped from the deck of the steamer into the boat, had been: "Do not fail to come to Krokengaard on your return;" this was said with that peculiar Norwegian accent and soft voice which made the English they spoke sound the more pleasantly.

As we neared the shore the sound of our oars attracted the attention of the people who were working in the fields. We landed at a sheltered spot, where a boat lay stranded on the sand, and made our way by a wide path through fields and meadows for a few hundred yards to a low stone wall surrounding a garden. Opening the gate, I entered an orchard of apple and cherry trees, both loaded with fine fruit of different species; there were also plums, currants, and gooseberries. The walks were lined with bushes in full bloom, and the place was filled with birds which had come to feed upon the fruits.

Knocking at the door of the old-fashioned white farm-house, a young lady presented herself, of whom I inquired if Captain Gerhard Münthe was at home. I was ushered into a room, where I found a handsome white-haired gentleman engaged in reading, who, as soon as he saw me, came forward and welcomed me in that courteous Norwegian manner which made me at once feel quite at ease; his young wife, with a pleasant smile, also received me very kindly; from the library, where I had been entertained, I was led into the parlor, where several ladies were chatting, busy with their needle-work. I was introduced to two daughters by a former marriage—fine-looking young ladies—and recognized among the company my two companions of the steamer, who, as I could see by the warm reception accorded me, had spoken about my coming; by their pleasant smiles I knew they had not forgotten me. After a general introduction, wine and cake were offered, and the venerable captain, looking at me, said, "Welcome to Krokengaard," and we bowed to each other. There was something so pleasant, so frank, and so amiable in the manners of every one, that the uncomfortable feeling which is apt to come over one when first entering the house as an entire stranger soon disappeared.

"We are all to dine," said the host, "with my brother and sister, at their home, and you will go with us. You will be welcome there also." The brother, a bachelor, welcomed me

in French, and the sister in Norwegian. They had invited all the members of the family for the day. The captain took my arm as we entered the dining-room; the Norwegians having no smörgås, the dinner began at once. The captain took the head of the table, being the eldest of the family, while I was on the right of the host, and a niece by marriage, a lady from Holland, was on his left; her husband, a nephew, an artist living in Düsseldorf, had come here on his wedding tour, to see once more the old homestead; the brother was at the foot of the table, the sister in the centre. The dinner was good and substantial, and a sheep had been killed for the occasion; claret was served, and the first toast of welcome was given in my honor by the owner of Krokengaard in a complimentary speech. We spoke seven languages at table—Low-Dutch, which some of the young ladies had learned in order to converse with their cousin—French, English, German, Swedish, and Latin. This will give an idea of the education of the well-to-do people of Norway. Each person present, with the exception of two, understood, more or less, at least three languages besides their own; some understood the whole seven, and others in addition; we had many a good laugh, for it almost seemed as if we had come from the Tower of Babel, such was the confusion of tongues. The topics of conversation were very varied, showing that the company had had a wide range of observation and culture.

I was much amused with the Dutch lady, who seemed afraid that I did not recognize her nationality; several times she took particular pains to let me understand that she was from Holland, and that Hollanders were very unlike Germans. At that time the feeling of the mass of the people in Norway and Sweden was intensely French; their sympathy for France was very earnest, and they almost felt as if the war was in part sustained by themselves; this feeling was exhibited wherever I travelled, and no doubt had been intensified by the Prusso-Danish war.

After coffee and an exciting game of croquet, we went into a little orchard, and there helped ourselves to the cherries, ox-hearts, currants, raspberries, and gooseberries; this was a rare

treat to me, for the year before I had not tasted anything of the kind, as in most districts the farmers do not cultivate them. I did not wonder that Krokengaard was celebrated for its fruits. The plum-trees were loaded.

My room commanded a fine view of the fjord and the snow-capped mountains and glaciers; in the morning I was awakened by the singing of the birds, which are never disturbed by guns here, though their depredations are considerable.

The quiet of these Norwegian farms along the sea, standing alone by themselves, is very striking. They often occupy only narrow tracts of land covering the rocks, with high mountains at their back, and the water of the fjord in front; and with good land, and fir, birch, and other trees growing on the declivities or the tops of hills, to furnish fuel; surrounded by a few fields and meadows; the sea the only highway.

At some distance from the house was a beautiful stream of clear water, coming down from rock to rock through a transverse narrow gorge, which fell perpendicularly, from a height of about thirty feet, and then the stream flowed over a bed of clear gravel, the water being so limpid that one could have counted every pebble beneath. Along its shores are scattered beautiful white-trunked birch-trees; while near by was the dark weather-beaten house of the working farmer of Krokengaard. On the bank of the river, higher up, was a little grist-mill, used for grinding the grain used on the place. This secluded corner by the stream and the fall, with its meadows, woods, and rocks, was the prettiest spot on the farm. Many such a picture as that of Krokengaard is to be found along the fjords of Norway.

Captain Gerhard Münthe, owner of the estate, enjoyed a literary reputation among his countrymen, for he had written a good history of Norway in his younger days. Often two or three such farms, not far from each other, belonging to the members of the same family, are together. There you find the comforts and the refinements which education brings. The rooms are furnished nicely, though plainly; every part of the house is exceedingly clean; the larder is well provided, and there is always a little stock of wine in the cellar for the use

of friends when they call; the servants are very tidy; there is always a good kitchen-garden; flowers are cultivated abundantly; the orchard is carefully kept; the farm buildings and the fences are in good order; the cattle fine; the fields well ploughed; and there is throughout a high order of cultivation, and a keen appreciation of the beauties of nature; the trees and rocks are loved, and all the advantages that can be taken of the picturesque spot are eagerly improved. A little summer-house by the bluff; a bench under a tree, from which a fine view may be obtained; a bathing-house built by the sea, or by the mountain brook; a well-painted and stanch boat, in which to row and fish; and a fine sæter back in the mountains, are among the usual appointments. In the house there is generally a piano, and sometimes a harp, a guitar, or a violin, for music is cultivated. There is also a little library, a Bible, and other religious works, and a variety of useful volumes. On the parlor table one generally sees some of the latest publications, an illustrated paper for the children, and the newspapers from the large cities, which come by the post-steamers, weekly or semi-weekly, bringing the latest news, not only of Norway, but of the world, flashed across the wires. The steamers which carry the mails stop at many single places along the fjords, and reach their very extremities, for there are post-stations everywhere; the hours of their arrival are fixed; the people watch anxiously, and immediately after the steamer stops a boat is sent to receive the mail, or a boy goes after it by the mountain-path. Letters are among the treats which are awaited with great anxiety by the family: the wife hoping to hear from father, mother, or friend; the husband expecting his business correspondence; the daughter awaiting tidings from her dear friends in the cities, or from some school-mate, or from her lover, or a brother who has left the paternal roof to make his way in the world. Something is always looked for, and there is great disappointment when the messenger returns empty-handed. Driving is out of the question in these places, for there is no road, and the horses are used only for farm purposes. The education of children is not neglected; they are taught the truths of the Bible, but not in

that austere way which often makes the young dislike religion. Everything that tends to produce intellectual development receives attention according to the means of the family, and great sacrifices are made in order to give the children a good education, and even to send them to the cities to pursue the higher branches. The girls are taught to be good housekeepers, and are skilful in all kinds of needle-work, embroidery, and knitting; they weave and make their own dresses, and there is always a sewing-machine in the sitting-room; so that when they marry they are capable of taking care of themselves and their families. The life is essentially a home-life, rich in domestic comforts; solid culture is sought after, rather than superficial accomplishment, for the wife is often the only companion to cheer the otherwise lonely hours of winter. The people are acquainted with the current literature of their own country and scientific progress of the world, and the works of foreign countries are often found in humble homes. The children are taught music, and occasionally there is a visit from the neighbors, when young and old indulge in the pleasure of a social dance. The church is often far off, and the only way to go to it is by water, so that families attend public worship only a few times during the year, when the Lord's Supper is administered, or at the confirmation of the children, or when the weather is very fine. This rare attendance at church, however, does not seem to lessen the faith of the people; indeed, it seemed to me that the more lonely they are the more religious they become.

In these Norwegian households the wife is industrious, and the life of the mother seems to be given to the duty of making her home happy. She is devoted to her husband and her children; she generally teaches the younger ones herself. The husband often prepares his boys for the higher schools, besides superintending the farm work, and carrying it on with system and economy, and calculates how much the crops will yield; how much butter and cheese can be spared and sold after laying up the year's supply; and how the wood of the forests can be economized and husbanded—for trees do not grow fast, and are becoming scarcer every year, and people

must not be extravagant with their fuel. Occasionally, turf is burned also. He has to see that the right-sized trees are felled. Now and then a few large fir and pine trees are cut down, either for building purposes or to be sold, to increase the household fund when the crops are unremunerative, or perhaps to give aid to a poorer neighbor, or to pay the expenses incurred by receiving more company than was expected, or by a prolonged visit to the city. Generally speaking, there is no abundance of money, and economy is necessary. No people are more generous, hospitable, or warm-hearted; meanness and stinginess are foreign to the Norwegian or Swedish character, and, considering their resources, there is no other country where the stranger is so kindly received and so hospitably entertained. I have lived in the mountains with people who occupied poor log-houses, and whose sole food was potatoes; but the little they had they heartily placed before me, and I had great trouble to make them take money. It seemed to them mean to sell food to a hungry man, or to take money for giving him shelter. The goodness of heart of the inhabitants of the retired mountain districts, away from the routes of tourists and the channels of traffic, has added greatly to the love and admiration I have for the Norwegian character.

It was with a feeling akin to sadness that I left Krokengaard, this pleasant home, where all had tried to make my stay agreeable. On the day of my departure the flag had been hoisted on the pole as a sign for the steamer to stop. As we sat at dinner around that cheerful family table, at the close of the repast the venerable host seemed suddenly to become particularly grave. He proposed my health, wished me success in all my undertakings, and expressed the hope that I had found Norway a good country, and the Norwegians a good people. "Our land is poor," he said; "but we cannot change what God has made. We wish you success and health in your further travels. When you come again to Sogne fjord, come to Krokengaard; you shall always be welcomed. Do not delay too long," he added, with a thoughtful face, "for if you do, you may find one missing." The faces of the company grew sad as he spoke, and tears gathered in the eyes of many.

"Yes," said he, "if you want to see me, do not stay too long, for I am an old man; the journey of my life is drawing towards its end. A happy journey to you, and welcome back to Krokengaard."

The parting touched me deeply, and I have never forgotten it; my thoughts often wander back over the sea, and wonder if the tall, erect form of the old captain, with his white flowing hair, still walks by the fjord at Krokengaard.

CHAPTER XXIII.

THE AARDAL FJORD.

The Aardal Fjord.—Its Noble Entrance.—Wild Valleys of the Fjords.—Boats on the Lake.—Return from the Sæters.—A Weird Lake.—Moen Farm.—The Hjælledal foss and the Hagadal-foss.—The Hofdal Farm.—The Farm of Vetti.—The Mörk or Vetti-foss.—The Aurland Fjord.—The Nærö Fjord.—Grandeur of the Scenery.—Gudvangen.—The Nærödal.—Stalheim Cleft.—A Fine Landscape.—Vossevangen.—The Graven Fjord.

From the Lyster, returning to the main fjord, you enter the Aardal, a continuation of the Sogne, and its most eastern extremity. At its entrance rises the Bodlenakken, 2990 feet, and, on the opposite side, the Bœrmolnaase, 3860 feet, with still higher mountains beyond them.

The autumn days had come, and I was sailing on the fjord, when my boat remained stationary for awhile, for want of wind, abreast and about midway between these mountains; the scene presented was one of grandeur and beauty nowhere surpassed, and rarely equalled, even in Scandinavia.

Among the wild valleys, high up in the mountains, is Oferdal (Aarferdal); by the shore were some poor farms; nets were drying upon poles by the boat-houses, and groups of flaxen-haired children were playing together: these poor-looking places are almost always crowded with children. Little piles of cobble-stones showed that the people had tried to clear the land for cultivation. Aardalstangen is the last hamlet at the upper end of the fjord.

In these hamlets the houses are small, possess few comforts, and are not especially clean. The best house usually belongs to the merchant of the place, who—a native of some city or large hamlet—in the little store provides the inhabitants with many useful articles to eat and to wear; he occasionally in-

dulges in petty speculations in butter, cheese, and even cattle, which he sends by the steamer to the larger towns; his profits are small, and he is contented if, in the course of the year, he has cleared one or two hundred dollars. The house of the merchant is used as an inn, and there the stranger will find cleanliness and good fare. The merchant here, Jens Klingenberg, was not at home, but his good wife and son received me with great kindness—the more so that I had brought a letter of introduction from one of their friends.

These valleys of the fjords are exceedingly wild and rugged, only bridle-paths leading from farm to farm. To the lover of nature they offer peculiar charms, especially here, as one of them contains one of Norway's beautiful water-falls, the Vetti, also called Mörk-foss. The journey to and from this fall takes less than a day.

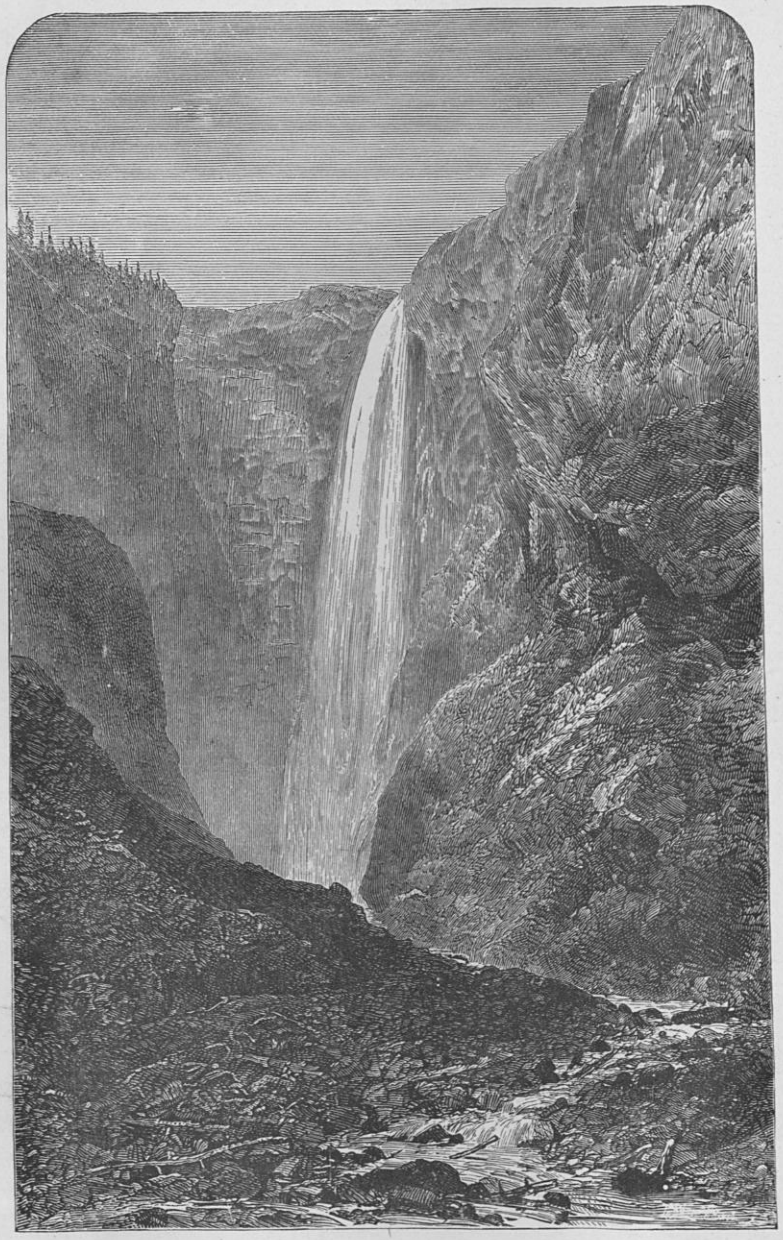
In this wild valley, which is a continuation of the fjord, at a short distance inland, is a picturesque lake, whose waters are of a deep-green color. Several large flat-boats, used to transport cattle to the paths leading to and from the sæters, lay stranded on the shore. The Stigebjerg mountain rises perpendicularly from the lake, a wild water-fall plunging in white foam from a towering height.

All was life on the lake; the flat-boats, loaded with cattle, sheep, and swine, were going in several directions. The summer was over. The maidens were delighted to leave their mountain retreats for home, and the villagers were going to bring them, with the cheese and butter they had made. Towards the middle of the lake the scenery is superb, and looks wild and weird. In one part the gigantic mass of rocks falls abruptly into the water, and a little farther on a grand fall —Hellegaard-foss—tumbles in white foam from the height above, and looks whiter on account of the sombre nature of the rocks. Perched high up are several sæters, one of which is called Kvenli. Soon after came in view from behind another white mass of foaming water, the Stige-foss, which had been hidden from our view.

Looking backward towards the fjord, a wild spectacle greets the eye, and one cannot realize or believe it is the same coun-

try just passed; towering mountains and wild ravines are seen in every direction, and the yellow leaves of the birch and grass look beautiful. Near the upper end, on its northern shore, is the Nondal valley, with farms perched 2000 feet above the water. At the head of the lake the valley of the Aardal takes the name of Utladal, which leads to the Vetti-foss. It runs almost parallel with the Lyster fjord, separated from it by masses of mountains about twenty-five miles wide, culminating in the Horunger, 7620 feet high, and surrounded by glaciers. On the eastern side the mountains rise to a height of 6500 feet, and its lakes and torrents afford the artist and the lover of mountain scenery unfailing and ever-changing sources of delight. A path from the Modal leads to File fjeld and to Nystuen, on the post-road from the head of the Lærdal fjord to Christiania.

There is a neat farm, called Moen, where one can find comfortable quarters. At a short distance from the house a spur of the mountain covered with fir seems almost to bar the way; but beyond this is a beautiful dale, with a few farms, looking like an emerald gem. This lovely spot is about one English mile in length. From there the valley narrows itself into almost a ravine, strewn with fragments rended from the mountain-sides, and lined with occasional terraces. Passing the farm of Svalheim you reach the Hjælledal-foss, a superb cascade, falling in a sheet of foam from a height of seven or eight hundred feet, and then the Hagadal-foss, nearly as high. The river below is spanned by a frail narrow bridge, composed of two or three fir logs; and on the other side there are a few fields of barley and a patch of potatoes. High up on the mountain is the Hofdal farm, approached by a dangerous path running at times over clefts spanned by a few logs, or along the smooth rocks, to which trees are fastened, to prevent people from slipping down to the ice in winter. Even in this lonely place, where the winds howl and the storms sweep with great force, there are some evidences of vegetation — hay enough to keep a few cows during winter, and birch-trees enough for fuel. The Utladal then becomes very narrow and almost obstructed by huge masses of rock, which fall every year from



THE VETTI, OR MÖRK-FOSS. From a Photograph.

the mountain, against which the torrent below dashes wildly, filling the valley with its constant roar. Suddenly the valley expands again, and on the hill you see the Vetti farm, where the tourist may tarry for the night.

From the house a zigzag path leads to the heights above, and to the deep chasm, from whose edge, by lying flat on the ground, one may venture to look into the depths below and follow the fall. Another path leads into the valley and to the foot of Vetti-foss, or Mörk-foss. This beautiful water-fall is formed by a stream from two small lakes at the base of the Koldedal plateau, 6510 feet high. From a dark perpendicular wall, forming almost a semicircle, the stream plunges down from a height of more than a thousand feet. Towards the end of summer, so small is the volume of water, that it falls gently in a transparent column of spray, looking the more white by contrast with the dark wall which forms the background. I wondered that this cloud of spray could make such a volume of water, rushing so violently among the rocks that it was with difficulty that I crossed to the opposite bank, from which a better view of the fall is obtained. The soil and rocks are covered with a dark fungus, everything contributing to make the spray appear whiter. I could see no land beyond, and only a few birch-trees on the ridge. As the fall is vertical, only a small portion of the water strikes upon the rocky walls. As I looked, the column of spray began to move to and fro, as the rising breeze swept around the walls, until it swung like the pendulum of a clock over a space of 250 feet; then came a strong gust of wind, and the whole mass spread into a transparent sheet of spray from top to bottom; as it became still it contracted once more into a white column. For a long time I stood watching this fascinating spectacle, and could hardly tear myself away. It resembles, in this changing column of spray, the Staubbach fall, in the valley of Lauterbrunnen, in Switzerland, and still more, according to descriptions and photographs, the upper portion of the Yosemite fall, in the famous valley in California. This latter plunges vertically about 1000 feet over a granite precipice, varying much in appear-

ance, according to the volume of water in different seasons, and its column of spray, in the same manner, is the delicate plaything of the winds. But the Mörk-foss has more water, and the photograph illustrates its smallest volume during the year. These bridal-veil water-falls are counted by hundreds in Norway.

THE AURLAND.

On the southern shore of the Sogne, some ten miles west from Lærdalsören, you come to the grand fjord of the Aurland. The depth of the sea at its entrance is over 3000 feet, and its breadth less than half a mile; the approaches are superb. The huge mountains rising from the deep sea, ravines, crags, precipices, and forests, combine to make a scene rarely equalled. On the western shore is the glacier of Fresvik, from the base of which several picturesque dales branch off in different directions.

After a sail of eight miles the Aurland divides into two forks, one of which is called the Nærö fjord; but we will follow the first. There is a farm called Stege, perched so high up that one wonders how the people can reach it from the fjord; on the opposite shore is Nedberge, and on the Kappadal one or two other farms; the buildings are so distant that one can hardly distinguish them, with their earthen roofs, from the rocks around. The valley of Underdal is on one side, near Flenje Eggen; and on the other is Steganaase. Eastward of the valley of Skjærdal rises Blaaskavl, 5650 feet above the sea.

The hamlet of Aurland has some painted houses and a comfortable inn. Four or five miles farther the end of the fjord is reached, ending in a narrow valley, where there are a few farms.

A rocky mass of about six miles divides the Aurland from the Nærö fjord, culminating in Steganaase, 5500 feet high. The view at the opening of these two fjords is magnificent, and the sea is here 1490 feet deep. As you lose sight of the Aurland fjord, and enter the Nærö, at every curve of land a new prospect greets the eyes, each equally grand and beautiful. The water is so transparent and still that, like a

THE NÆRÖDAL.

mirror, it reflects all the objects by which it is surrounded—snowy peaks, silvery clouds, and sombre forests. Immense masses of gray granite, gabbro, and Labradorite rise from the sea-level to the highest peaks, and in the Nærö fjord the Labradorite partly rests on strata of gneiss visible along the shore. On our right the Hægde plunges down a thousand feet, in a series of cascades, white with foam, into the valley—the only grand water-fall I have seen on the Sogne fjord. The first time I entered the Nærö an exclamation of admiration burst involuntarily from my lips—I became spell-bound before the stupendous panorama; the sublimity of the weird scene impressed me with a feeling of awe and wonder—I could hardly realize that the water upon which we sailed was the sea.

When you arrive abreast of Dyrdal—carved out of the solid rock—the scenery is extremely grand; some small farms, whose dingy log-houses have withstood the blasts of centuries, relieve the dreariness of the scene. After passing Gjejteggen and the farm of Styve, the fjord suddenly contracts, and the depth of the water diminishes to 190 feet. After a few miles the navigation suddenly stops, and the Nærödal rises almost imperceptibly from the sea, winding its way among the same grand scenery as on the fjord itself.

I have sailed over this fjord at all seasons of the year—in bright sunshine, and when dark clouds swept by on the wings of a hurricane; but to me the beauty of the scenery was always greatest after sunset on a summer day, before the twilight had disappeared. Such an austere grandeur is given to these gigantic walls by the twilight, and their outlines look so like grim phantoms, that I doubt if there be anywhere a more weird and sombre sea-view than that of the narrow Nærö fjord.

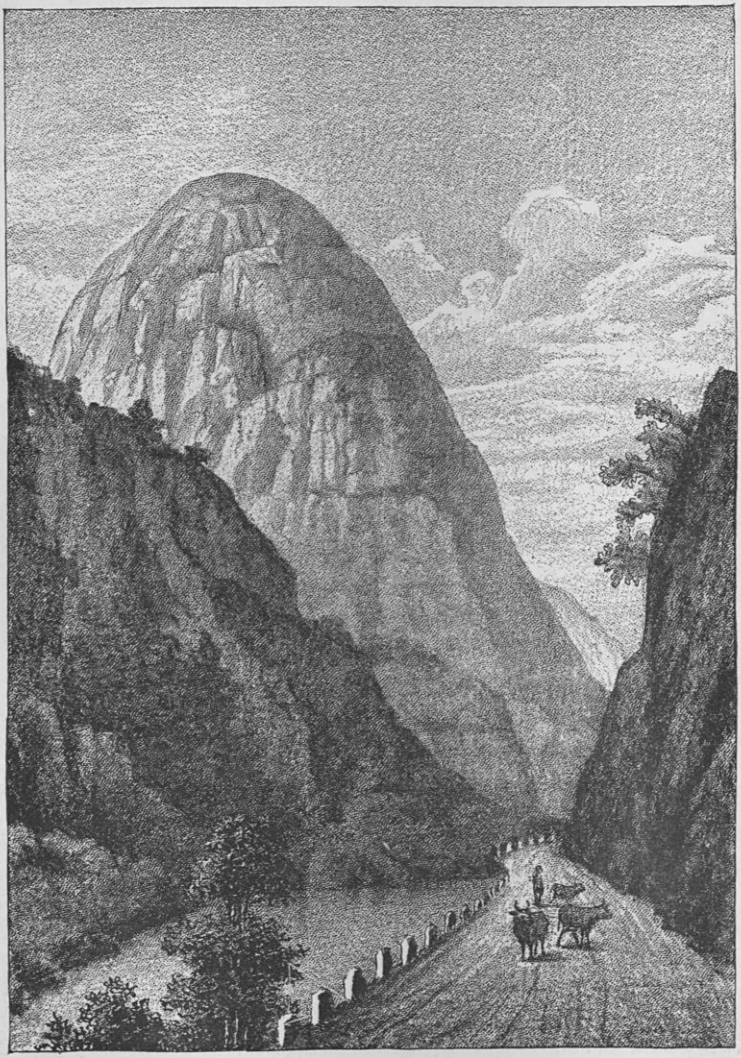
The entrance to the Nærödal valley forms a worthy continuation of the fjord. The hamlet of Gudvangen is situated among blocks of huge stones that have been torn from the mountain-sides; and it would seem as if any day an avalanche might overwhelm the dwellings of its unsuspecting inhabitants. On the other side is the lovely water-fall of the "Kilsfoss," 2000 feet high; at certain times of the year it is formed

of three distinct portions; at others, of two—occasionally of only one; the stream makes a leap of over 1000 feet, without touching the rocks, below which they join together.

The scenery is so gloomy at Gudvangen on a dark day that the most buoyant spirit is sobered, and even with sunshine one wishes to depart from its sad surroundings. Near the place is a small chapel overlooking the sea, reached by a narrow path; in several places the rock had to be blasted, and an iron railing protects the people from slipping on the ice and falling into the sea in the winter.

Marthinus Hansen, the station-master, was a quiet, thoroughly honest man; his wife, with her equally good face and white cap, looked like a matron of the olden time. A grown-up daughter, their only child, who had been sent to school in Bergen, helped in the duties of the household: although she could speak English, I could not make her talk. There were two servant-girls also, for travellers were numerous during the season. The little inn was all the fortune the family possessed, and it was quite comfortable; it is true the bedrooms were small, but Hansen said that as soon as he had accumulated money enough, he should add another story; "and then," said he, enthusiastically, "travellers will have large and comfortable rooms." He added, mournfully, "It is so hard to save money." His honesty forbade him to cheat or overcharge travellers. I have stopped several times with good old Hansen, and the more I knew of him the better I liked him. Now and then we write to each other, and in his last letter he wrote that many travellers had stopped at Gudvangen; I am sure they were all treated kindly and honestly.

From the Nærö fjord one of the most picturesque and best highways of Norway crosses to Eide, at the head of the Graven fjord on the Hardanger, a distance of about forty-eight miles. There is no other valley in Norway, through which a high-road passes, that can compare for weird scenery with the Nærödal, which suddenly comes to an end, and farther progress seems out of the question; an apparently impassable cleft bars the way, but the faint outlines of a zigzag road are seen in the distance, permitting the passage of this, the Stalheim cleft.



THE JORDALSNUT.

This work is one of the most remarkable instances of engineering skill displayed in Norway; the ascent is tedious, and in winter, when ice covers the ground, often dangerous, as I have myself experienced. Two charming water-falls are seen descending from a height of several hundred feet, dashed into spray on the rocks, and afterwards forming the Nærö River.

From Stalheim cleft the view of the Nærödal is very impressive. The Jordalsnut (*nut*—cone), an immense mass of granite, rises like a gigantic dome, looking down upon the narrow valley. From Stalheim southward the landscape is smiling and beautiful, and one seems glad to leave behind the gloomy Nærödal. Forest, charming lakes and streams, old farm-houses, and snow-clad mountains in the distance make a beautiful panorama.

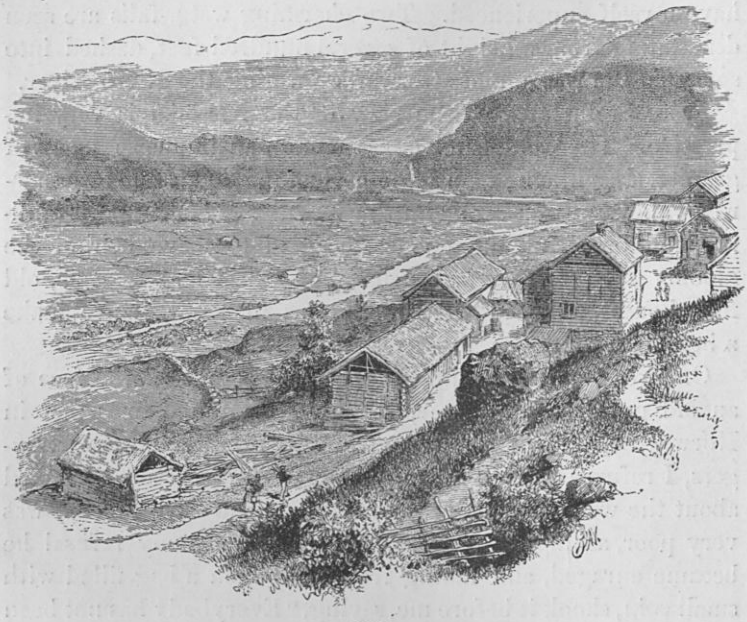
One year, on the summit of the cleft, I missed the face of an old professional beggar, the only one I had ever met in Norway. The first time I met him there, watching for strangers, I refused to give him anything; not dismayed, he talked about the weather and the fine summer, and then said he was very poor, asking once more for money. On my refusal he became enraged, and taking from his pouch a bag filled with small coin, shook it before me, saying, "Everybody has not been so mean as you are; look at the money that has been given to me! Look at it! look at it!" I burst out laughing, and this seemed to vex the old miser still more. When I inquired of the postman about him, he said the old fellow was dead.

Near the hamlet of Vinje is the quaint old log church built two centuries ago; the roof is domed and studded with stars, and the walls gaudily painted; two crosses, one of iron and the other of wood, were the only monuments in the graveyard; worship is no longer held in the building.

There are few districts in Norway near a high-road where the people seem so untidy as here; most of the houses are very dirty; while travelling in winter, on entering a house I have seen children of ten and twelve years of age stark naked, who at the sight of the stranger hid behind the stove or ran away.

The stations between Gudvangen and Vossevangen are

wretched, and food palatable to an inhabitant of a city cannot be procured, but good coffee, and sometimes bacon and fish, may be obtained.



VINJE.

On the road near the old farm of Tvinde, a wretched post-station, you see the Tvindefoss, which pours over a sparsely wooded ledge three or four hundred feet in height; and its cascades, if not grand, are among the loveliest in Norway. About six miles farther, passing through a picturesque country, the hamlet of Vossevangen, on the shores of a small lake, is reached; here the road branches off towards Evanger and Bolstadören, at the head of the crooked fjord of that name. The inhabitants of the parish of Vosse are very interesting, and a stay there over Sunday will repay any one for the delay. The accommodations at Fleischer's hotel were very good; the landlord spoke English, and the place was comfortable, and is the only one where travellers can remain overnight on their way to the Hardanger, a fjord which no visitor to the country should fail to see.

THE TVINDEFOSS.

Not very far from Vossevangen, among the hills situated between or overlooking the Rundal and Lione lakes, are farms which are reached by a steep ascent from the valley below. There the stranger can study the primitive character of the kind-hearted and intelligent people of Vosse. Their women weave a thick woollen coverlet, called *aaklæder*, which for centuries has had a great reputation among the farmers, who like the bright colors of their patterns.

At the farms of Graue and Norheim I was treated royally by the old folks, as their children living in the West, in America, were good friends of mine, and one of the grandchildren of the good farmer of Norheim had been named after me. The best things from the larder were always cooked for me, and there was no end of skål, Paul. At each of these two farms the daughters and other members of the family—as it is the custom in Norway—had huge chests up-stairs, where they stored some of their wearing apparel and other precious things. There each had her own bottle of wine carefully stored, and which is only opened on special occasions, when they wish to compliment some very good friends. Every one insisted on treating me. The brothers made me come to their houses and partake of their cheer.

From Vossevangen the highway to the Graven fjord, a distance of about twenty miles, passes through a picturesque country abounding in fir-trees; there are a few old-fashioned saw-mills, but the population is scanty. After a drive of ten or twelve miles the upper valley abruptly terminates, and a magnificent view bursts upon the sight; the lower valley, several hundred feet beneath, is hemmed in by high mountains; a superb piece of road engineering winds down the cliff, at times passing at the base of an immense overhanging wall of rock. On the left was a chasm forming the centre of this semicircle, and a charming water-fall—the Skafledal—tumbled down the face of the cliff, running thence over the bare rock, and then falling again to a greater depth. Crossing the bridge over the stream, where the road was guarded by blocks of stone, we continued our route, skirting along the Graven lake and the river, until I reached the fjord.

CHAPTER XXIV.

THE SMILING HARDANGER.

The Hardanger Fjord.—Its Beautiful Landscapes.—Melderskin.—Rosendal.—Autumn Wind-storms.—Sunday on the Fjord.—Dressing the Bride.—Bride and Bridegroom on the Way to Church.—Ulvik.—Holding Court.—Lione Farm.—Lars's Friendly Welcome.—The Eidfjord.—A Gale.—Marvellous Phosphorescent Water.—Vik.—Journey to Vöringfoss.—A Superb Sight.—The Sör Fjord.—The Loveliest of Norway's Fjords.—The Tyssedalfoss.—The Ringedal Lake.—Deep-blue Water.—The Skjæggedal or Ringedalfoss.—Norway.—Beautiful Water-fall.

Hardanger Fjord presents a great contrast to the weird grandeur of the Sogne, with its water-falls and cascades plunging down the mountain-sides; at the foot of the overhanging glaciers the hills are covered with woods of deciduous and coniferous trees, and orchards, presenting a richness of foliage rarely seen in other parts of the country. The cheerful landscape seems to have impressed its features on the inhabitants of the farms and hamlets on its shores.

This fjord is separated from the Sogne by ranges of mountains, with steep, short fjords between them. Steamers from Stavanger on the south, or Bergen on the north, make the round trip twice a week, the voyage taking three days.

The Norwegian coast, from a little below 59° northward, is literally cut everywhere by fjords, and skirted by a maze of islands, bewildering to any one looking at the Government survey maps. The outer fjord is known under the name of Bömmel fjord, and is formed by the main-land on one side and a series of islands on the other, which, by their position and number, make it completely land-locked for a distance of sixty miles. South of Bömmel island, at the entrance of the fjord, the sea is 720 feet deep; but it rapidly grows deeper, till, a few miles higher up, it varies from 1260 to 1120 feet; thence lessening to the islands of Huglen and Klosternæs to

A MOUNTAIN SCENE IN HARDANGER.

408 feet, it increases gradually to the southern part of the island of Tysnæs to 1614 feet; at the entrance to the inner fjord, known as Hardanger, it is 1470 feet; and its greatest depth, between the eastern shore of the island of Varals and the main-land, is 2140 feet.

From Bergen the steamer's route, between the island of Tysnæs and the main-land, is through a crooked and narrow channel, the scenery reminding me of the Hudson, near West Point. As the steamer winds along, in a north-east course, crossing to the other side, the panorama at the upper part is magnificent, with mountains looming up in every direction, their snowy tops glittering in the sunshine: the Folgefonn snow-fields and glaciers look down from a vast plateau, and the fjords seem creeping at its base.

After a sail of seven hours from Bergen you come to Rosendal, a charming spot, with the Melderskin rising 4550 feet, and a large tract of cultivated land at its base; opposite, on the eastern shore, is the Mauranger fjord, extending almost to the base of the mountain of Folgefonn. The yellow leaves showed the presence of autumn; and the red of the asp and mountain ash rivalled in beauty that of the American foliage at the same time of the year, contrasting finely with the dark hues of the evergreens. At this season the weather is very uncertain, and wind-storms suddenly sweep down the mountain gorges with much violence, to the great danger of mariners. On our way up from the Melderskin one of these squalls struck our steamer. The sight was superb, for the force of the wind was such that, as we ploughed the water, the spray sometimes dashed topmast high, and the whole of the fjord was enveloped in a thick mist.

From Rosendal the sail is beautiful. One of the most picturesque places is Östensö; the houses stand on the shores of a bay which has almost the shape of a horseshoe: near Östensö is Samleköllen, surrounded by forest-clad hills and rich meadows. Passing on the left Bjölbergfos, with the high mountain of Oxen in the distance, the scenery is remarkably beautiful; the fjord then makes a sudden turn to the south-east, known under the name of Utne.

I left the steamer and took a boat, and, as I was carried slowly onward by a gentle wind, I might have fancied that I was in a fairy-land, so balmy was the air, so blue the sky, so silvery the clouds, so beautiful the landscape, with the mountains decked with snow and ice. I heard the bell of the church on a hill looking down upon the sea; saw boats from all directions crowded with people; maidens fair, in their picturesque costumes, prayer-book in hand; young men with manly faces, proud to row them; mothers, in the snowy head-caps worn only by the married; old men and women bent with years, and with sight dimmed by age, with their grand and great-grandchildren. As they passed by, some shouted, "Amerikaner, I have a son — I have a daughter in America. Do you know them? Oh, tell me, have you seen them?" One would say, "My son lives in Minnesota;" "My daughter is in Iowa," shouted another; a third, "I have three children in Wisconsin." On coming near, they seized my hand, holding it fast with a nervousness which told the intensity of their feelings. They forced me to say that I did not know them, or had not seen them; but the link of love was there, and they loved me, for their children had written that they had happy homes in my own land, and they were glad to see one who lived on the same soil. As we bade each other good-bye they would shout, "Amerikaner, come to our farm, you shall be welcome; we will show the portraits which our children have sent to us, and perhaps when you return you may go and see them, and tell them that you have seen the old folks at home; that we think of them every day, that we miss them, that we pray God to bless them." And all would give me a fond parting look.

Continuing my way, in the afternoon I met a bridal party crossing to the other shore, on their way from the church; the bride, with her silver crown, which made her look like a queen, and her garments of bright colors, was seated by the bridegroom: their boat was followed by many others, filled with those going to the marriage feast. Two men were playing on the violin, and in the intervals of the music a draught of the celebrated Hardanger home-made ale was passed around; then

DRESSING A BRIDE. SCENE IN HARDANGER.

the boats went on again, the music gradually dying away in the distance.

Nothing can illustrate better the different phases of Norwegian life than the paintings of Tidemand, for they are so true; and here I can do no better than to give the representation, by that artist, of the "bride being dressed in her wed-

ding-garb," with her mother giving the last touches to her toilet, while the grandmother is looking on, and her younger sister is holding the looking-glass. But the long flowing or plaited hair, after the wedding-day, will be cut short. She will give up the graceful cap for a white one, like that of her mother, for these are worn by married women. I am happy to say that often young women object to this old custom, and hope that it will soon be among the things of the past.

The other scene represents the bride and bridegroom on the porch of the church, ready to go—either to the boat which is waiting to bear them to the old homestead, or to the vehicle which is to take them there.

The next Sunday I saw another procession crossing the fjord, but now all was silent and solemn, for it was a funeral cortege carrying the dead to the church-yard. Such is life—yesterday a wedding, to-day a burial; in one household sorrow and tears, in the other joyous hopes of a bright future.

On another page are three girls that have been rowing in a boat; they have landed and hauled it on the shore; they are going to make a visit at one of the farms in sight, and have brought a little luggage with them; but, before going, they are giving the last touches to their toilets, for these Hardanger maidens are coquettish: one is quietly tying her apron; another is rearranging the hair of her companion in a becoming manner, and adjusting it around her forehead. They wear their best clothes; the snowy-white sleeves of their chemises contrast with their dark dresses. The shortness of their skirts shows their bright-colored stockings.

I entered the Gravedal valley, and afterwards crossed over the mountains to Ulvik to see the region between the two fjords, in the beginning of October, when the leaves were falling fast. Passing several farms, I reached the plateau; the tops of the highest hills were covered with snow, and ice appeared along the shores of the streams and the Vatne lake; the thermometer stood at 34°. The sæters were found deserted, and I descended to Ulvik. The women on the way were gathering the leaves of the asp-trees for the use of the cattle during the coming winter, for the hay crop had been short

BRIDE AND BRIDEGROOM LEAVING THE CHURCH.

on account of a dry season. Ulvik was crowded with strangers, for the court was in session. The court-house was near the inn, on the fjord, and was an unpretending log-house, containing a wooden table, and a few chairs and benches. Most of the cases were for debt, or for unpaid interest on mortgages.

After the adjournment of the court, the judge, the lawyers, the lensmand, and the strangers went to the inn for dinner. While rambling round I met a group of three maidens. They were strangers, and belonged to another part of the Hardanger fjord. I had hardly left them when I met a bonde driving a cart. I saluted him in Norwegian. "Good-day, stranger,"

FINISHING THEIR TOILETS.

was the answer; "where are you from?" "From America." "Oh!" said he, "I have a brother in America—I have relations in America." We kept talking. "How old are you?" said my inquisitive friend. "Are you a married man? How many sisters and brothers have you? Are your father and mother living? What is your business? Have you a farm? How much does a horse cost in America? What is the price of a good milking cow, a sheep, a goat, a pound of butter? How many sorts of cheese do you make? Have you any 'old cheese' (*gammel ost*)? What are you doing in Norway? Are you not

the son of a Norwegian? How is it that you can understand and speak Norwegian?" By the time I had answered all his questions we came to that part of the road where we were to part, when my inquisitive friend said, "Won't you come to my farm? You shall be welcome." "Yes," said I. "What is your name?" "Paul Du Chaillu." "Paul is a Norwegian name," said he; "you must be the son of a Norwegian, and have forgotten somewhat your mother-tongue." Then I followed him. As the road was very hilly, he wanted me to get into the cart, but I refused. It began to rain, and he insisted upon putting his coat over my shoulders. We kept ascending, passing several good farms, and by a foaming stream. The trees, though somewhat scarce, were scattered among the meadows, or were growing by the roadside; they had been pruned of their branches, which were used for fuel. My friend's farm was among the highest. When we reached the top of the hill my good-hearted companion stopped, and, pointing to a cluster of buildings, said, "There is Lione"—and soon after I reached his house. I was hardly seated before Lars took from a cupboard a bottle, and insisted on my taking a glass with him, and then went in quest of his wife, who soon came and welcomed me. We refreshed ourselves with a substantial meal of milk, cream, cheese, bread-and-butter, dried mutton, and sausage. While I was eating one of his brothers came in, but he would not sit at table with me; that was not etiquette, for the repast was prepared especially for the stranger. Two of his children were called; the eldest, Anne Maria, thirteen years old, had superb blonde hair, and a rosy complexion which the fairest of her sex might envy; Ingeborg, the younger, only seven years old, had hair almost white. "When you come next winter to see me you will have a fine room," he said, for he was adding an upper story; "you will come and see me again, will you not?" I answered that I would come and spend a day with him. "Five days," said Lars; "as long as you like—you will be welcome." Then we went to see his cows, which had lately been brought back from the sæter. Lars was a well-to-do farmer for that region, owning eight cows, a horse, and thirty sheep. His brother also owned seven cows, twenty-five sheep, and a

horse. We made brief visits to the neighbors, among whom my arrival had created a sensation. The day was advancing, and I had to bid good-bye to Lione. "Why!" said Lars, looking perfectly astounded, "are you not to sleep here?" "No," I replied; "I wish I could." Although the rain was falling heavily, he insisted upon going with me for a part of the way, and I had great difficulty in preventing him from putting his heavy coat over my shoulders; but I preferred being wet to being smothered. The wife, children, and neighbors assembled to see me off and bid me welcome back. Lars Danielson was a perfect specimen of a Norwegian bonde.

HARDANGER MAIDENS.

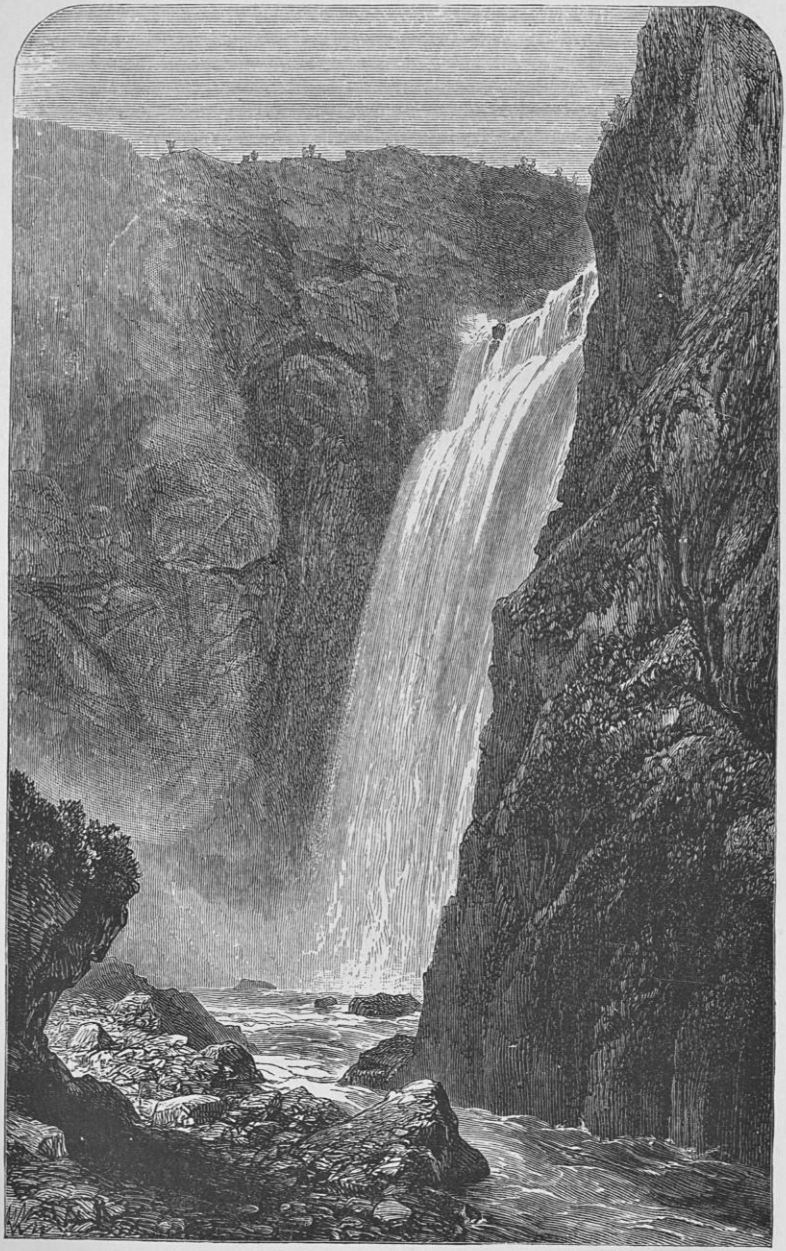
The following day the weather, which had been fine all the morning, became threatening in the afternoon, with black heavy clouds hanging over the mountain-tops. But my boat was ready, and the two boatmen were waiting for me; and in spite of the lowering skies, and against the advice of the judge, I left, to return in time for the steamer, for I wanted to see the Vöring-foss, one of Norway's finest water-falls. In the twilight the mountains which rose above the Osse fjord looked grand and fantastic, and their summits were now cov-

ered with snow. The end of this short fjord looked particularly weird, as the darkness, which was soon to overtake us, threw its shadows upon the peaks, the wild ravines, and crags. The wind had been gradually increasing, the forerunner of a storm: first a few drops, and then a drenching rain fell, accompanied by a high wind; the short and chopping sea tossed our boat about like a nutshell. I was kept busy bailing out the water which came in over the side; we were evidently in the midst of a great storm. Now and then we pulled by a sheltered spot, but squall after squall struck us, each one seemingly stronger than the preceding, requiring all our strength to resist it. After entering the Eid fjord the wind blew with such fury that we could make but little headway; the caps of the waves, as they broke, scattered a thousand sparkles, for the water was highly phosphorescent; the rain was very cold, for one thousand feet above us it was snowing. The night was exceedingly dark. Nothing is more deceptive at night than the distance of the mountains; even my men, with all their knowledge of the fjord, went close to the rocks two or three times, first noticing their mistake by the striking of the oars against the shore. We could hear, but not see the water-falls, except where they fell from the cliffs into the sea, bringing to the surface a large area of the same phosphorescent light. Towards midnight the weather changed: the wind went down, and the storm was over. We were now pulling very fast, when suddenly a marvellous sight appeared ahead — the water of the fjord seemed to be in a blaze; I had never seen in the tropics, nor in the wake of a ship, such a brilliant glow; the brightest part of the Milky Way appeared to have come down into the sea; we seemed to float in the midst of countless flickering stars. This beautiful spectacle was caused by the contact of the waters of the river Erdal with those of the fjord.

As we approached the termination of the fjord I watched two lights on the shore until one disappeared, and soon after the other, at another window, went out, showing that every one in the place had gone to rest. We landed at Vik, and a few minutes after were admitted to the inn. There were a few farms, among the most important of which were those of

Nesheim, Legereid, and Hereid; the terraces here were very high, the soil poor, and the farmers did not appear to be thrifty, nor were their houses clean. At about a mile from Vik is the Eid fjord lake, a wild sheet of dark-green water three miles in length, at both ends of which are farms. A mountain-path leads to Vöring-foss, after crossing a bridge, the path following the right bank of the stream. Only two poor farms were met on the way, Thveit and Haabo; a few patches of soil between the rocks yielded a scanty crop of potatoes and barley. The people were busy, for they had slaughtered a number of sheep, and were to preserve and dry the meat for winter use. A short distance beyond we saw the remains of the steep zigzag path leading to the top of the plateau, from which you obtain a view of Vöring-foss, and to the mountain farm Maurset, and to the sæters. After crossing two bridges we ascended over a newly-made road, built over the débris fallen from the mountains, at the expense of Turist-förening, the members of which have built roads and paths over points before inaccessible, and shelter-houses for mountain travellers, and who publish a valuable periodical every year. On the way one sees the letter "T," with the date of 1870, cut in a rock, showing when this road was finished by the society. This well-made path is about six feet wide, and leads to the end of the valley, and to the foot of Vöring-foss. From here a fine view of the water-fall can now be obtained, whereas formerly it could only be seen from the heights above. Everywhere are traces of the silent work of glaciers. The first water-fall plunged silver-like over the wall on the right bank of the stream, swaying to and fro in the wind like a gigantic bridal veil.

The booming sound of the great fall became louder and louder as we advanced, and after crossing a bridge we found ourselves at the foot of Vöring-foss. Its heavy body of water fell perpendicularly from a height of 700 feet, in a solid column; after passing through four rocky channels with tremendous force, three of the columns leap over without touching the rock, though you can follow them all, running distinctly side by side with unequal rapidity. The great current of air created by the fall caused the spray to shoot forward, curling



VÖRING-FOSS.

itself, and then, according to its violence, ascending gently to a height of 2000 feet. The body of water of Vöring-foss is greater than those of the Rjukand, the Mörk-foss, or the Skjæggedal-foss. On the other side of the Vöring a cascade of much greater height, the Fosseli, comes down into the valley from a height of 2000 feet.

THE SÖR FJORD.

This sheet of water, about twenty-five miles long, and varying in breadth from one mile to a few hundred yards, is incontestably the loveliest of the fjords of Norway, and is probably unsurpassed, for I doubt that any sheet of water can equal it for beauty. It runs nearly north and south, separated from the main fjord by a mountain range crowned by the snow-fields and glaciers of Folgefonn, and from above the water-fall plunges down a distance of between 2000 and 3000 feet.

I had changed my boat and crew at Utne, a thriving hamlet on the fjord, and, as the wind was light, had ample time to enjoy the beautiful panorama, restraining my boatmen, who were lazily reclining on the seats, from taking their oars to speed us on our way.

Eight shores were in view—those of Eid fjord, the Sör fjord, the Kinservik, a deep bay-like fjord, and the Utne. After entering the Sör fjord, promontory after promontory appeared in succession. I counted eight spurs on one side, and four on the other, at the same time, their outlines ever changing as we sailed along. The great glacier of Folgefonn towered above the autumn landscape, seeming often to come to the very edge of the mountain, and ready to fall in pieces over the precipice. The mountain slopes abruptly into the sea from a full height of 5000 feet. A row of high cones (*nuts*), Solnut, 4650 feet, Torsnut, 5060 feet, Veranut, Langgrönut, and the rest of the range form the supporting wall of the plateau towards the east. On the east side of the fjord the more recent strata of the blue quartz and clay slate lay over the primitive granite or gneiss. In the early morning everything was reflected in the still waters of the fjord in a most perfect manner—glaciers, mountains, rivulets, snow-patches, trees, farm-houses, even the

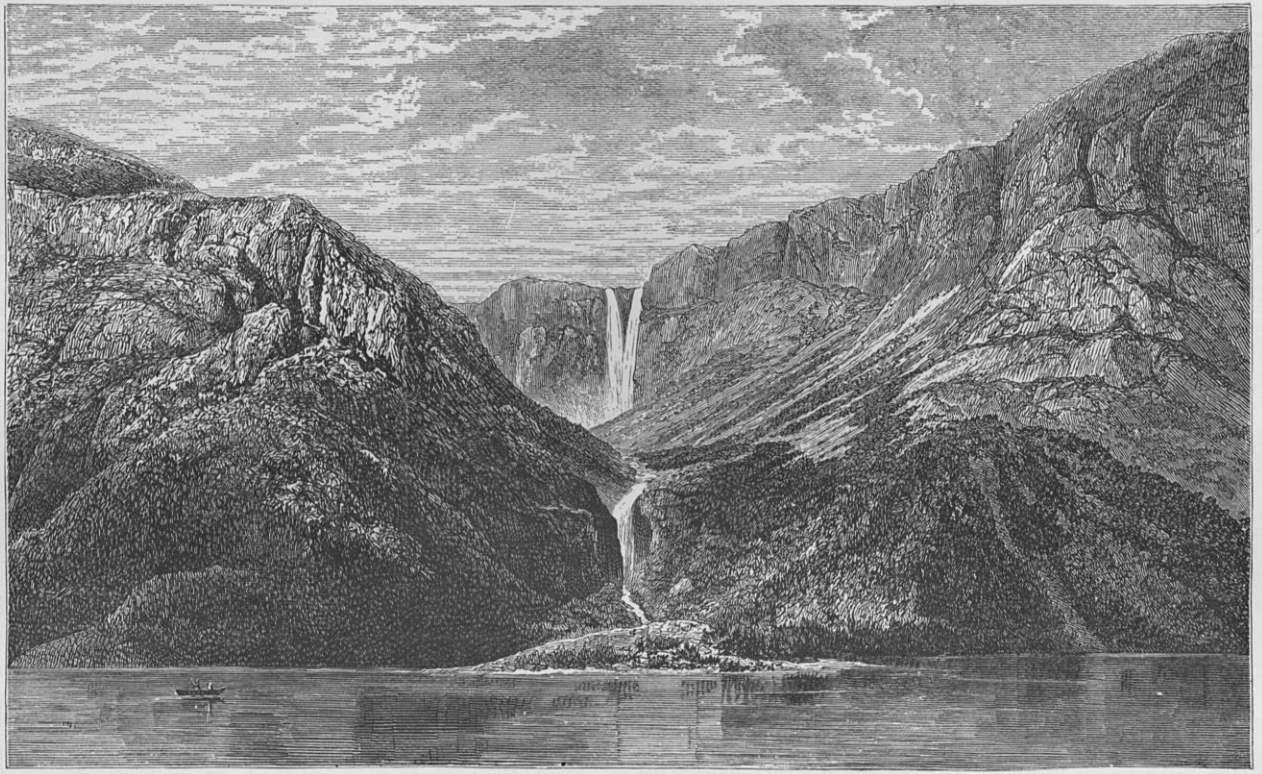
smallest rocks were seen, and, while looking at the water, we seemed to be travelling on the land.

Beyond Ullensvang the glacier was more distinctly seen, and often the ice-mountain sides became more abrupt, and approached nearer to the water. At the farm of Hofland the fields extend to the end of the promontory, and a beautiful cascade tumbles down from rock to rock. At Fresvik the mountains form a semicircle, with several water-falls on the western shore, and give a fine view of the glacier. As we approached Tyssedal the mountain supporting the glacier exhibited almost perpendicular cliffs, black and gray in color; some were smooth, and others rugged and torn. The Tyssedal River rushes down into the fjord, which soon after narrows itself more and more, the mountains looking dismal, and the terraces becoming very distinct. The hamlet of Odde is at the end of the fjord; but on the eastern shore, about four miles from Odde, near the right bank of the river, is a difficult bridle-path leading to Lake Ringedal, on whose shore is Norway's most beautiful water-fall, the Skjæggedal-foss.

At first the road led through a fir forest; the Tyssedal rushed on its downward course, dashing violently against the boulders in its bed. In one place the stream bent around a small, smooth, rocky islet, covering it so thinly that the effect was like that of myriads of particles of ice sparkling in the sun; on each side the water flowed furiously, its clouds of spray floating on the currents of air. Where there was no shade the heat was intense, for it was the month of July, and the sun's rays were reflected from the bare rocks.

The path became more difficult as we advanced; we had to cross broken masses of rocks, boulders, and sometimes smooth rounded domes of gneiss, which sloped so much that the way was almost dangerous; happily, the coarser and harder part of the rock had resisted decomposition, and its roughened surface prevented us from slipping down; in two or three places trees had been felled, and made fast at points where the incline was very steep, for if the traveller should lose his footing he would inevitably roll down to certain death.

The higher we ascended the finer became the view on the



THE TYSSEDAL-FOSS.

other side of the fjord, the green opaque color of the sea contrasting with the foaming river; occasionally we had a glimpse of the immense plateau of snow and ice of the Folgefonn. Never during my travels in Norway did I see such superb water effects grouped together. Here the stream flowed in a solid, smooth, deep, crystal-like mass; farther down it struck against a rock, or rushed through a narrow chasm, and tumbled into a pool, a foaming, angry, white torrent—at times, through the foam, the water appearing of the greenish color of tourmaline, and where it was deep, of dark-blue, and when shallow, the pebbles were as of silver. The beauty of the stream was no doubt due, in great part, to the very long period of dry weather that year, to the rocky bed of the river, and to the extreme purity of the water in Lake Ringedal.

Having reached the highest point, we descended by a regular flight of steps, the path skirting a chasm several hundred feet deep; and, after two hours and a half, we came to the Tyssedal. The little valley was picturesque, with the bright sun of July shining upon it; but it must be dreary in the winter, when the winds from the mountain-tops sweep over the lake and the farms. We passed a magnificent cascade, which, at an angle of about 35°, fell from a height of several hundred feet, and then crossed two small bridges over the outlet of Ringedals Vand.

As I approached the water's edge I was struck by the peculiar appearance of the water, which was of a steel-blue color close to the shore, and a few feet from it of a darker blue. I had never seen, among the hundreds of lakes of Norway, anything approaching this deep shade of blue, which appeared almost black: the bluest of the tropical seas could not compare with the color of this lake, nor could the lakes of the Swiss Alps. In a basin of granite, it stands 1310 feet above the sea; but how many feet below, I had no means of ascertaining.

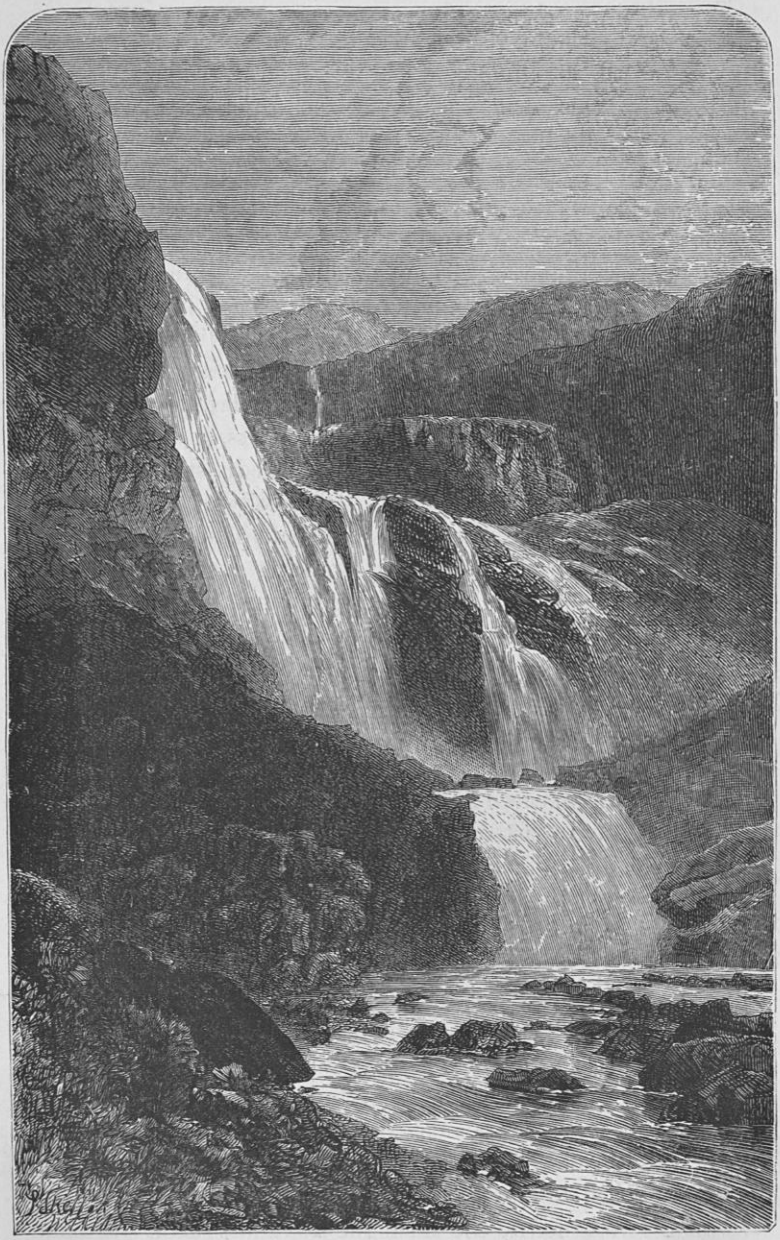
As we sailed along, the Tyssedal-foss burst upon our view, the two branches forming a triangle, uniting in a foaming mass below, after a fall from a height of about 1600 feet, sending up clouds of spray; the water was then lost to view, as it passed through a crooked channel down a deep chasm to form

a second fall about 500 feet in height; at this point the granite rises about 2300 feet, and, resting upon it, as the engraving shows, is a layer of clay slate 720 feet thick, over which the water throws itself.

I had hardly ceased wondering at the sight, while listening as we went along to the roar of the descending torrent, when suddenly the Skjæggedal, called also Ringedal (the latter name ought to be adopted on account of its easy pronunciation), with its white column, came plunging over the ledge into the chasm below in one grand leap of 800 feet. Immediately after taking this leap it struck a ledge of rocks, and was sent rebounding into a thousand foaming fragments of dazzling whiteness. The angry, turbulent, chaotic, and heavy mass, on its way downward, beat against another ledge, and formed a still thicker and heavier cloud of foam and spray. The body of water precipitated itself with such velocity as to create a powerful current of air, which caused the lighter spray to assume a hundred beautiful fantastic shapes. At one moment it was wreathed into a spiral column—water-spout—coiling and recoiling upon itself, bounding forward, coming back, mounting up, then descending — reascending again, breaking itself, assuming new shapes and indescribable transformations, and then suddenly pushed downward with great force, where it struck a third ledge, and disappeared in a compact and impenetrable mist, hiding the lower part of the fall. This vast white cloud, constantly replenished from the heights above, was sent forward skimming swiftly through the narrow gorge over the beautiful clear crystal stream, which, after flowing on some 200 yards, again formed a second fall of about 50 feet, from which the spray, ascending to the top of the hills, appeared like a thin vapor floating in the air.

I had seen hundreds of large and thousands of small falls in Norway; many were much higher, but none had ever impressed me with their beauty like the Ringedal; I gazed at it for hours, and new combinations and wonderful forms continually presented themselves.

When I returned to the farm the travellers' book was handed to me. A few Englishmen had written their names in it.



THE SKJÆGGEDAL OR RINGEDAL.

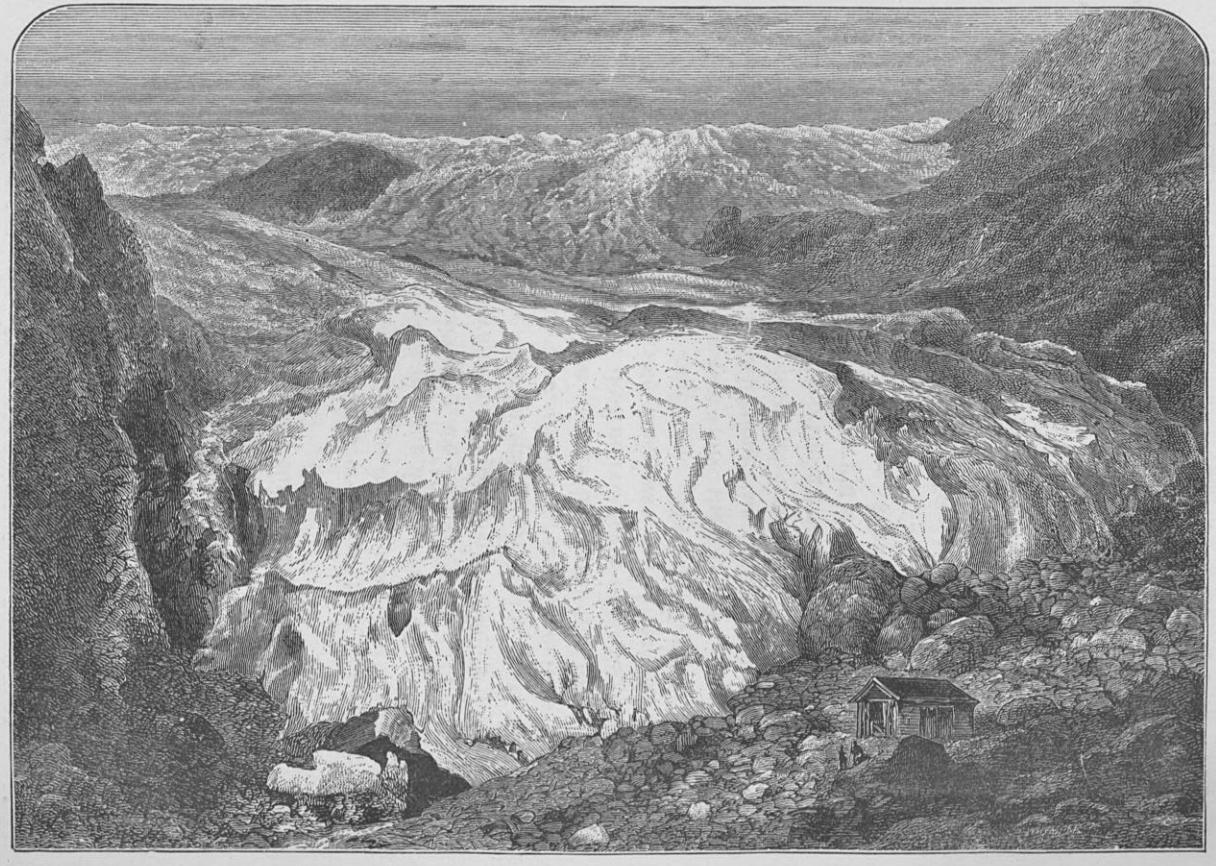
Two gentlemen from Boston had been here, and three American ladies, the only female strangers who had at that time visited the place, viz., Miss Williams, Miss Cutler, Miss Z. I. Cutler, Maine, U. S., July 6th, 1872. They hailed from the land of Pines. I felt very much like congratulating them, and in a fit of enthusiasm, for which the reader, I hope, will pardon me, for I am an admirer of plucky women, I shouted, "Hurrah for the girls of Maine!" A row of one hour on the fjord brought us to Odde; from which the tourist should not fail to visit the Buer-bræen, one of the glaciers of the Folgefonn.

At a short distance from Odde is the Sandven Vand, a lake said to be without fish, on account of the cold stream from the glacier. Not far from its lower end is the valley of Jordal, at the upper part of which is Buer-bræen. A path leading towards the end of this narrow dale is quite easy of ascent, the rise being very gradual, and the distance to the glacier about two miles. Four years before my first visit in the valley a vast amount of stone had fallen with a terrific roar, which in the distance sounded like thunder, sending its echoes from hill to hill. At every step there was something to notice, either while looking at the mountains, or watching the stream as it came plunging down. In one place the snow-fields of Folgefonn rest on a plateau forming a peninsula, bounded on the east by the Sör fjord, the Sandven lake, and the valley that follows; on the west and north by the Hardanger, and on the south partly by the Aakre fjord. On the east side, as we have seen, mountains fall abruptly. On the north and north-western sides they are lower, and not as abrupt or naked. On the south side, towards Aakre fjord, they are also lower, but in some places are very precipitous and bare. The Folgefonn is fringed by numerous glaciers. Among the most important on the north-west side is the Bondhus-bræen, which is much larger than the one we have just described.

The limits of perpetual snow vary, as I said before: in lat. 60° 3′, towards the east, 3440 feet; by Blaadalsholmene, 59° 55′ lat., towards the south-west, 3940 feet; by Gjerdesdal, 61° 8′ lat., towards the north-west, 2480 feet. The highest point of the snow-clad ridge is 5270 feet. Numerous little lakes are found

near the glaciers. A ridge of mountains crosses the Folgefonn in a north-westerly and south-easterly direction, forming the Svartdal (black dale) and the Blaadal (blue dale); and another ridge forms the Kvitnaadal. Blocks of stone mixed with sand showed their unmistakable origin. The glacier had reached this point years before, had retired, and was now again advancing; while higher up our path continued through a wood, in which numerous moss-covered stones could be seen, showing that the glacier had not reached that altitude for a very long time.

The view of that narrow glacier was imposing, impressing the mind with a sense of the great power of destruction possessed by a vast body of moving ice. In the study of other glaciers, which were retiring, we have seen how the boulders and smaller stones have been deposited in the fields in former times, and could trace, by the marks of the ice on the rocks, the course taken—but now, standing before the Buer-bræen, we could understand how valleys had been dug out of the solid rock by that most destructive form of water, the glacier. The huge, irresistible mass was still advancing slowly, and had done so for a long time. My guide said it had advanced more than fifty feet since the previous year, driving everything before it. All along the base of the ice was a transverse ridge of earth, in which fresh greensward and stones were mingled together, which the glacier pushed forward as it glided over the rocks. On the right was a huge mass of rock, which had been torn apart by the pressure of the advancing ice. The weight which had overcome this obstacle must have been enormous, for the evidence of such terrific force was before my eyes. Not even the solid mountain walls, composed of the hardest of our rocks, could arrest the forward march of the terrible glacier. This block of granite, torn from the mountain side, was about twenty feet long and fifteen broad. It had been broken unevenly, and was still covered with moss. A part of it was overlapped by the ice; and the upper stratum of the glacier, having a stronger current than the lower, would finally run over it and hide it from view as the onward march continued; and when the glacier again retired, the boulder



BUER-BRÆEN. From a Photograph.

would be deposited on some new resting-place. The glacier came down a steep gorge, leaping three distinct ledges of rock, and it was crowded between solid walls not more than 250 to 300 yards wide towards its end. The moraines seen higher up on each side above were engulfed farther down into deep crevasses formed by the pressure of the ice and ledges. On its left were towering mountains; Mount Reina being 5210 feet above the sea, and the second highest point of the Folgefonn. The ice was of a magnificent blue; the cavern was small, but extremely beautiful; and its stream was far from being as dirty as those of the glaciers of the Justedal. Lower down in the valley, not far from the glacier, was the Buer farm; and from the mountain-side came a cascade between 700 and 800 feet in height. The owner of the little farm was in great tribulation. He saw with much anxiety the steady advance of the ice, which had already destroyed some of his pasture-land at the head of the valley, and in a few years would probably sweep away the little wood which we had passed on our way up; then the farmer would be compelled to find new quarters, and perhaps be a ruined man. He had tried to sell his farm, but nobody was willing to buy it, fearing to cast away their money. It would not be strange, indeed, if in the course of forty or fifty years this glacier should reach the very shore of the Sandven lake, whence it could go no farther, for the ice would melt in the water; but glaciers are fickle, both in their forward and retrograde movements, and in a few years the Buer-bræen may retire instead of advancing.

CHAPTER XXV.

THE SÆTERS.

The Sæters.—Time of Departure for the Mountains.—Preparations before going to the Sæters.—Deserted Hamlets.—Departure from Stavanger.—Samson.—The Suledal Valley.—Reception at a Parsonage.—Samson's Farm.—The Suledal Lake.—Over the Mountains to Röldal.—The Valdal.—The Valdal Sæter.—A Hardanger Family.—Sæter Life.—Sunday.—The Father's Departure for the Farm.—High Mountains.—Red Snow.—Björn Vand Sæter.—Ambjör and Marthe.—Farewell to Björn Vand Sæter.

In the midst of the mountains, far away from the farms, by the shores of lonely lakes and rivers, or on the slopes of ridges beyond the limit of the growth of grain, are the sæters. These are mountain houses or huts, built of logs or of rough stones, where, during the summer months, the people of a farm come to pasture their cattle, for in the midst of this great wilderness of rocks there are many spots covered with aromatic grass, which gives a rich flavor to the milk of these places. Many of these sæters are very difficult of access; high mountain ranges and snow-patches have to be crossed, and rivers forded by man and beast. Solitary, indeed, is the life in these mountains, for only once or twice during the summer does the farmer go up there to see how those who have been left are getting on, to hear about the herds, and if the season has been good. Should the summer be cold or wet there is less milk obtained; it should be remembered that to many a farmer an abundance of butter and cheese is necessary, in order from their sale to obtain the supplies needed for household use. On these visits they bring provisions and take back the produce of the dairy. The sæter life is also a hard one; the pastures are far away from the huts, and during the whole day the maidens have to follow the herd, rain or shine, and return in the evening, cold, hungry, and often wet.

In some mountains pastures are very abundant, and sæters numerous; in others they are few and far apart. Almost every farmer possesses one, but some, who have more mountain land than they require, rent part of them to those less fortunate. Though the family owning a sæter may be very poor, and have only three or four cows, they show the same generous impulses which characterize the nation, and from them I always received as kindly a welcome as from their richer neighbors.

The people start for the sæter, in many districts, towards the middle of June, the time varying somewhat, but generally not after midsummer (St. Hans's Day), according to the distance and mountain heights that are to be crossed. They return between the middle and end of September, and, if high mountains are to be passed, about the first week in September.

Two young maidens, the pride of their family, or of a neighborhood, will remain in the mountains all alone, feeling as safe as in their father's home; they have no fear of being molested, for they trust to the honor and manhood of the bonde blood. Very few things in Norway have impressed me more than this simple faith.

The young lover comes once or twice to cheer the hours of his sweetheart, but only for a day: if engaged to him he is the more welcome, for in the autumn, after the labors of the harvest are over, the wedding will probably take place. Many a courtship has been commenced at these places, where the heart of the young maiden is more susceptible on account of the loneliness of her life.

A few days before the departure for the sæter a great stir takes place on the farm; milk-pails, churns, and wooden vessels, the great iron pot, the mould for the cheese, two or three plates, and a cup or two, a frying-pan, and, above all, the coffee-kettle, are made ready for packing. Salt for the cattle; flour, to be mixed with skim-milk, for the calves; bread, a piece of bacon for Sunday, coffee and sugar, and covering for the beds must not be forgotten. The girls take their Sunday clothes and prayer-books, and old garments for every-day wear; a good stock of spun wool, to make stockings, mittens,

or gloves in their leisure hours, and pieces of cloth upon which they can embroider. The old horse which carries the load is often let loose to pasture in the mountains for several weeks, for the ploughing is over, and the grass or hay left from the year before is carefully saved.

On the morning of departure the cows, sheep, goats, and a pig or two are watched by the children, to keep them from straying far away. If the farm is small, and the people poor, all the family go to the sæter till harvesting takes place. The mother is often seen carrying on her back the last baby. Before starting, the mother prepares an extra good meal for the farm-hands, or that part of the family who are to accompany the sæter girls—the daughters, or girls hired for the season. Those who take the lead often carry long horns, by whose shrill tones the animals are called to follow, salt being given to them now and then to coax them on, and the children keep them in line.

During the summer the farms and hamlets are deserted; sweet milk is not to be procured, except at the relay station, and the home-life is wanting. At that season I avoided the great routes crowded by sight-seeing tourists, and went into the mountains, each year exploring a different group; I always lived at the sæter, to which I will now lead the reader.

In the beginning of July I left the old city of Stavanger. The sail on the fjord was very interesting, on account of the sea-marks engraved on the rocky sides of Stensö by the sea, at a height of 150 to 175 feet; and at the narrow valley of Aardal four distinct terraces, one above the other, were in sight at one time.

After a trip of twelve hours we came to the end of Sands fjord, a branch of the Stavanger; here I landed with my guide, Samson Fiskekjön, who had been recommended to me as trusty and well acquainted with the mountains. Samson was a bachelor, about forty-five years of age, honest, though not brilliant, and of whom I still retain most pleasant recollections; he was chatty and amusing, and knew well the ways of city people from frequent visits to Stavanger. Samson was heir to a well-stocked farm that would be his at the death

GOING TO THE SÆTER.

of his father, then eighty years old, and of which he was now the manager, and, to all intents and purposes, the owner; his mother was nearly as old as his father. Before arriving at his home he began to apologize for its simplicity, which he thought would not be agreeable to an American — all of whom he imagined to be millionnaires, living in the most luxurious style. He had heard of California, and of America as the land of gold, and, of course, everybody had gone and helped himself to the precious metal. So he commenced by saying that only the old folks were at home; that there was no milk, as the cattle had gone to the sæter; that the food would be too simple for me; that his mother would not know how to cook; that he was afraid there were many fleas; and finally suggested that we should drive to the parsonage. I mildly said that it would be better first to drive to his place, and then take a walk to the parsonage, and wait for an invitation from the pastor. After a drive of two hours through the picturesque valley of Suledal, along the clear river, we reached his farm, where we found his father splitting wood with a strength which augured well for a life of twenty years at least. The old couple received me with great kindness.

A number of farms were scattered about, and in sight was the church. A short walk brought me to the parsonage, where the pastor, a bachelor of about fifty-five, received me in a very cool and un-Norwegian manner, though there was nothing impolite in his demeanor. I was somewhat surprised at this unusual reception. All my efforts to get acquainted with him seemed useless; I gave him my card, but that, of course, did not help me, for he had never heard of my name, and had never seen any of my translated works: to my inquiry if he ever read the *Skilling Magazine* (which had from time to time given accounts of my journeying in Africa), his answer was, in a sonorous voice, "I never read the *Skilling Magazine!*" The hope of an invitation to the parsonage began to vanish, and visions of being tormented by fleas during the night came up before me; I had passed through that ordeal a few days before, and I did not care to experience another so soon; I knew that if Samson complained of them there must be a

prodigious number, for the people do not mind fifty or sixty of them in a bed.

I was about to retire, when another venerable clergyman, with his wife, on a visit from the North, entered the parlor. I commenced a conversation with him; but when I told him that in one summer I had crossed the land from the Baltic to North Cape, and from Bodö to Luleå, he flatly contradicted me, saying it could not be done—in short, the reverend gentleman gave me the lie. I came to the conclusion that these two worthies probably mistook me for some scamp, or an emigrant agent from America. If this were the case, I do not wonder that they did not receive me well, for such persons are not popular. There must have been some reason of the kind, for this was the only instance during my travels where I failed to receive a warm Norwegian welcome. When I told the story to Samson, on my return, he had a good laugh over it. I said, in a rather exulting tone, "Did I not tell you that it was better to go to the parsonage without luggage?" During my absence a complete metamorphosis had taken place in the farm-house, and everything was tidy and clean; bread, butter, cheese, and sour milk were on the table, and the good people excused themselves for having no sweet milk, as the cows were far away in the mountains. I slept with my door wide open, for the night was very warm; I do not think they slept at all, as coffee was ready for me at four in the morning: they pressed me to eat, as the journey before me was a long one.

I left with two boatmen, having besides a woman with an infant in her arms. We had not sailed far before we came abreast of a comfortable white-painted house, the pleasant home of a Storthingsmand, where we went ashore. The host was not at home, but his amiable wife, who had heard of my coming this way, had been expecting me, and seemed quite disappointed when she heard I had spent the night at the farm of Samson. Though I assured her that I had breakfasted, she insisted that I should partake of another.

The Suledal valley, near the lower extremity of the lake, is exceedingly interesting to the antiquarian, on account of the numerous tumuli or tombs of heathen times, some of which

are hollow, of circular shape, and surrounded by stones, while others are square. As we ascended the lake we could see the paths leading to the sæters, and patches of snow on the mountains. After a pull of fourteen miles we landed at Næs, on the right shore, near the upper extremity of the lake, from which there is a horse-path leading to the numerous sæters met between the Suledal and Röldal lakes.

The road over the mountains to Röldal is at first along a torrent spanned by a bridge; it passes numerous sæters, where milk was offered to us. Towards the close of the day the sun came out, gilding with its last rays the hills and snow-topped mountains, till night overtook us in the dark ravines, as we descended by a natural gigantic-like flight of stones to Botten, where we found only the daughter at home, her father and mother having gone to the sæter.

From Röldal a bridle-path leads to the Valdal valley, through wild scenery. I intended to pass the whole summer, or until the appearance of snow, in going from sæter to sæter over the table-lands of the Hardanger mountains. The beginning of August is the best time to cross the mountains, as then most of the snow has disappeared, the streams are shallow and easily forded, and the swamps are passable. I procured a good guide, who was to take his horse, not that I wanted to ride, but to carry our provisions: a horse is no trouble in this Röldal region; you can generally climb the hills faster than the pony does; but in difficult places a mountain horse, accustomed to go to the sæter, will be surer-footed than yourself, and make fewer slips on the stones; if riding him, you must not attempt to guide him, but let the bridle lie loose on his neck. The horses pick up their food as they go along, here and there in some green spot, and can endure great hardship, hunger, and cold. I carried a gun with me, not for protection, but for possible use in obtaining food.

The path, after leaving Röldal, ascended gradually along the Valdal River, in view, on the left bank, of the white column of the Risp-foss; descending again, and crossing the stream on a bridge, we saw, on the opposite shore, the bridle-path going to Lake Staa and upper Thelemarken.

On the right bank of the Valdal are seen many sæters, and paths branching in every direction. The river flows for some distance through a flat country dotted with fine pastures and small farms. Another stream throws itself into the Valdal, and forms a magnificent cascade of 1000 feet, below which the current was so strong that even the horse could hardly keep his footing while fording it. Twelve miles from Röldal we came in sight of the Valdal lake, the mountains sloping gently to the shore, near which were several sæters. Herds of cattle, which had come from the mountains to be milked, grazed on the green banks, and on our left, high up, was the Bakken sæter; while at the head of the lake the smoke curled upwards from the Valdal sæter, and we heard the loud cries of the girls calling the cattle that wended slowly on their way, browsing as they went. On the right bank of the lake a magnificent cataract fell from a very great height. We followed the shore till we came to the upper extremity of the lake. The people were watching us, wondering who we could be, for they expected no one from their home.

On our arrival they bade us enter the house, which was as comfortable as that of a farm, and the usual salutations took place; the milk was passed around in the large flat pail in which it is kept for the cream to rise; taking the customary sip, we handed it back, with thanks, and the usual pressing invitations to drink more (*dricke mer*) were responded to by drinking as much as we could, with many thanks (*mange tak*). When they learned that I was from America they looked at me with astonishment, saying, "Fra Amerika, fra Amerika." I was then made the more welcome, as Nels, the farmer, had a married daughter in the States. He had come the day before from the farm to carry back the butter and cheese that had been made; he lived far away, on the Sör fjord, one of the branches of the Hardanger. He was the father of a large family of grown-up children—a type of the Norseman (north man), hospitable but undemonstrative, with a tall and spare figure, and a kind face.

Three of the daughters were at the sæter for the summer, Synvor, Marthe, and Anne—all pictures of health, and blondes

of the type of the descendants of the fair-haired Vikings. Synvor, the eldest, rather short in stature, was nineteen years old; Anne was seventeen, tall, muscular, with piercing blue eyes, and fully able to take care of herself; she would have made a good model for a Valkyrie; Marthe was sixteen, with golden hair, soft blue eyes, and delicate complexion. All three were celebrated on the Hardanger for their beauty, and young farmers without number were trying to win their hearts. I could not but admire these northern girls, trained up in fresh air, simple food, with abundant exercise, and free from the trammels of fashionable dress.

In July and August I do not know of a more healthy climate than that of the sæters, especially when they are situated from three to four thousand feet above the level of the sea. The atmosphere at that elevation is most invigorating and beneficial, even to the Norwegians who live on the shores of the fjords or in the lower valleys. The air passing over the vast undulating and barren mountain plateau is peculiarly dry and exhilarating. Any person, a few days after his arrival, feels its effects; the appetite becomes good, and he who came ill often returns home with his health restored.

The mountain life is an active one, and the girls are busy from sunrise to twilight. The pastures belonging to this sæter were extensive in the neighboring mountains, and sufficed for fifty-two milch cows, with eight others, and four horses. The cattle belonged to three different farms, including that of Nels, some coming from Sör fjord, fifty miles distant; two of his daughters had charge of those not belonging to him, for which they were paid. The milk of each herd was put in the vessels belonging to the place from which the cows came, and the butter and cheese were set apart in like manner. The people are so honest that no farmer fears that the girls will favor one at the expense of the other, or put any of the butter or cheese in vessels belonging to any but the rightful owners.

A large enclosure, surrounded by a stone wall, contained a fine meadow, the grass of which was carefully cut and dried, to be taken away by sleighs in the winter. There were upwards of 250 milch cows at the Valdal sæters, besides large num-

bers of heifers, calves, and horses. The calves were kept at home; every morning and evening they were fed on a mixture of churned milk and flour, with salt; or, if no milk was to be had, on hot water, in which juniper shrubs had been kept for awhile.

At four o'clock in the morning we were awakened by the ringing of the bells which some of the cows wore around their necks; they had come by themselves from the mountains to be milked, and this was the signal for the girls to rise. This they did at once, and were soon on duty—each buckling on her waist a belt from which hung a horn filled with salt; this is given to the cows as well as to the horses and sheep, generally in the morning and evening, when they go to or from the mountains.

After the milking the girls drove the cows up another path in the mountains to new pastures, from which they would go and come by themselves after knowing the way. On their return the maidens went into the milk-room, the door of which was always carefully closed, skimmed off the cream which had been formed on the milk of previous days, and putting it in the churn, they began to make the butter. Others took the empty vessels to the river and rubbed them inside and outside with fine sand from the shore, and afterwards with juniper branches, finishing by a thorough rinsing in the stream. The pails are generally made of white pine, and are clean and spotless. Cheese-day also proves a busy time, and its work is done in the same thorough manner. The room where the milk is kept was marvellously neat; about 150 pails filled with it were on the shelves, each being about twenty inches in diameter and five inches deep, made of white pine, with wooden hoops; the milking pails stood on the floor ready to be used. Several barrels for the churned milk and buttermilk, and vessels for the butter, were also arranged in order.

On Sunday, after the morning milking, every one commenced his or her toilet as if getting ready to go to church, putting on clean linen, and all their holiday clothes and shoes. The girls and their mother wore dresses of thick dark-bluish woollen material—homespun—with corsages of the same color.

The bottom of the skirt was ornamented with a wide green band all around. The corsage was open, and showed a handkerchief embroidered with gold. Each girl wore a close-fitting little cap, which seemed to be made only to hide the ends of her thick luxuriant hair. No work was done except what was absolutely necessary; some of the family read the Bible and sung a few hymns of praise. After dinner visiting took place from sæter to sæter, and the afternoon was spent in the social fashion customary to the country.

I crossed the stream to visit friends from Röldal, who had their sæter on the other side—only a little stone hut. The fording was difficult, as the current was strong and the water deep. I had to ride; Anne was with me on the same horse, riding astride in front of me, like a man, I holding fast to her, as we had no saddle: the animal had evidently crossed many times, as he made his way with great sagacity.

We had a fine time in the evening after the milking was over. One of the girls wanted to trip me "for fun," and in the attempt I lost a small locket from my watch-chain, and we could not find it, though we looked for it everywhere; it was a Christmas present from home, and I prized it very highly. The place was thoroughly searched the next morning, but in vain; the following year it was found, forwarded to Samson, who took it to Consul Rosenkilde, in Stavanger; he forwarded it to Christiania, from which city it was sent to my friend Herr Christian Börs, the much esteemed Swedish and Norwegian consul in New York, with the request to find me, and to deliver the article to me personally.

Early Monday morning everybody was up; the horses were ready for the return of Nels to the farm; the pack-saddles were put on over two thicknesses of woollen blanket; the butter, cheese, and milk for the working-people on the farm were not forgotten; the father in a quiet way, without kissing, said good-bye to all his family, and soon was lost to sight in the windings of the path beyond the lake.

The family would not let me start till I had taken a substantial breakfast, in eating which I almost incapacitated myself for the journey: my experience has taught me that a

traveller will do best, especially in the mountains, when his stomach is not oppressed with food. At last, as I was ready to say good-bye, Synvor suddenly disappeared, to return with a big cheese, which she placed in my arms. "Take that," said she, "and eat it on your journey, for you will sometimes be hungry; there are not many places in the mountains where you will meet a sæter."

Though I had no horse, and the cheese was heavy, I accepted it, not desiring to give offence. I shook hands with the family, and put a little money into the hand of Synvor, and a little gold dollar besides, but she exclaimed, "No, no!" "Yes, yes!" I replied. "When you come again to Odde, come to see us," they called out; "do not forget us—do not fail to come." "I will come," I shouted back, as I hurried away.

From Lake Valdal the path northward, over the mountains, is wild and dreary, even in the beginning large patches of snow having to be crossed.

After leaving the lake, we ascended over a rugged country above the birch region, where juniper and arctic berries were abundant. An hour's walk brought us to the shores of the lakelet Visadal Vand, not far from which was an isolated poor-looking sæter, built of loose stones. The inside was far from clean; on one side were the beds, placed on the rough slab-floor; on the other, the fireplace; in a corner lay a heap of juniper bushes, five or six pails, a copper kettle for making cheese and boiling milk, a coffee-pot, and a churn. The occupant of the sæter and his wife welcomed me; the man was apparently more than eighty years of age, but hale and hearty; he had travelled about eighty miles to spend his summer here, and well exemplified the hardiness of these mountaineers. This sæter had one hundred and twenty dry cows, belonging to many farmers, who had sent them here to pasture. A hired woman and three men had the charge of them, having also five milch cows for their special use, besides their food. We skirted the hill-side of the Visadal, over bare rocks and patches of snow, passing many cascades and water-falls. Continuing our ascent—the horse went one way and we another—we climb-

ed a rugged hill, crossing several large snow-patches sometimes tunnelled by streams. Almost directly north was Haarteigen, 5390 feet high, dotted with snow, which shone in the rays of the sun; Nups Eggen stood on our left—the mica here resting on the primary rocks. There was no appearance of a path other than the dry beds of streams full in the spring. We passed the Steige Vand, a weird and lonely little lake at the top of the mountain: here even the dwarf birch had ceased to grow. Though the sun shone brightly the wind was cold, the thermometer standing at 48°. Large patches of snow came down to the edge of the lake, often overhanging the shores, and the gray lichen again appeared. We were still ascending, and our pass was more than 4000 feet above the sea. The fields of snow, which were deep and soft, increased in size, and we had to cross one, horse and all, almost one and a half miles long: now and then we saw the tracks of wild reindeer. Suddenly we found a tract of red snow in the midst of the white, the first I had ever seen. I imagined a reindeer had been killed there, and that the snow had been stained by its blood. "This is *gammel snö*" (old snow), said my guide. As we advanced these rose-colored patches became more numerous, some of them being fifteen feet long: the effect was very striking. This red snow is always found in the large melting patches, and its color is due chiefly to the presence of minute vegetable organisms, enclosing an oily-like red liquid, the algæ, known as *Hæmatococcus* (*protococcus*) *nivalis;* according to Ehrenberg there are also animalcules, which he calls *Philodina roseola.* We then passed on the border of Vasdals Eggen, where the mountains, largely covered with snow, range in the direction of north-north-west. After we had traversed this plateau for about three hours it sloped downward to the east, and a toilsome tramp through wet snow brought Lake Björne into view; on its shores I saw cattle grazing, and not far off the smoke curling from a solitary *pige sæter* (girl sæter) in this mountain home of the wild reindeer.

Every year, towards the latter part of June, from the Hardanger fjord or from Röldal, a farmer, accompanied by two girls, with a drove of milch cows, crosses these mountains.

During the summer the girls are left to take care of the cattle and attend to the dairy.

It was late in the day when we arrived at this lonely place; the girls came out to see who the strangers were, suddenly disappearing at our approach to put on their best clothes to receive us. They wore the costume of the girls at Röldal, and their caps were set very coquettishly on their heads; one had red stockings, the other blue.

BJÖRN VAND SÆTER.

Three small houses of rough stones stood near each other, the walls being about thirty inches in thickness, and the rear resting on a hillock of earth; the roofs were formed of large slabs, supported by planks placed lengthwise, wide apart, with beams across; upon these earth had been laid to prevent the admission of wind, and on this the grass was green; the floor was laid with large, uneven tiles of slate. The chimney, built outside, was covered at the top by a flat stone, to prevent the entrance of rain, and the door was made of heavy rough wood.

We were invited to enter, and I was struck by the extreme cleanliness and order of the room, the only ornament of which was a small looking-glass upon the wall; a single window, high up, twenty inches by fourteen, with four small panes, admitted light; near the fireplace, in the corner, was a frying-pan and

coffee-kettle; and a copper kettle, with the inside as bright as gold, partly filled with water, hung over the fire. On one side were shelves, upon which stood rows of pails filled with milk to furnish cream for the butter; in the middle of the room, on the floor, was a simple couch of hay, which was kept from spreading by pieces of wood; home-spun woollen blankets and sheepskins were used as coverings, for the nights are always cold in the mountains: behind hung the garments on a cord strung across. In one corner was a store of juniper and willow for fuel, used with great economy, for wood was very scarce.

Only once during the summer are the girls visited from the farm, for the road over the mountains is tiresome, and the distance ninety miles. Near to their house was another, which could have been used by another family, of about the same size, but with a much smaller window; in this the barrels of sour milk, and the cheese and butter were kept, and juniper bushes in large quantity; close by, much more roughly built, was the third building of the sæter. It must have been no easy work to erect these on such a spot, for the wood, the beams, the doors, the planks, had been brought from a long distance, and the collecting of the stone and the making of the walls was also a work of patience.

The girls were delighted with our visit, and, although they did not know us, they were not in the least afraid; Ambjör, the younger, was eighteen years of age, and Marthe about twenty-six; both were farmers' daughters—one living on Hardanger fjord, the other on the shores of the Röldal lake. Immediately after our arrival they began to prepare a meal for us; a small chest was converted into a table, on which a white towel served as a cloth; slices of bacon were fried, and cold potatoes (how good they tasted), the remains of their Sunday meal, with cheese, butter, and flat bread, were spread before us. A large pail of milk, with rich solid cream on top, was placed where we could help ourselves. When everything was ready, they said, "Be so good as to eat our simple sæter fare. You know we are not on our farm, and we cannot offer you a better meal." Everything tasted better to me than the

dishes of a banquet, for I was very hungry. Coffee was roasted, and freely served to us during the meal.

We had hardly ceased eating when the ringing of the cow-bells warned Ambjör and Marthe that milking-time had come. They dropped their fine skirts, replaced them by their working garb, filled their horns with salt, and, taking their pails, were soon busy with their twenty-two milch cows, which had come of their own accord from the pasture; the creatures got some salt, and rested for awhile on the ground around the huts. Samson, the guide, took my horse to a man sæter, some three miles distant, for it had been agreed that Paul must not stop there, it being dirty, uncomfortable, and infested with fleas.

When evening came, preparations were made for sleep. The girls moved the wooden barriers of the bed and spread out the dry grass, placing upon it the woollen blankets; we all went to bed with our clothes on, except that we took off our shoes and stockings, and Samson and I removed our coats: there was only that one bed for us all. Samson snored so loudly that there was no possibility of sleeping, and we voted him a nuisance, who ought to have gone to the man sæter: he kept us laughing all night. At four o'clock we were awakened by the bells of the cows, which called the girls to the milking.

The country surrounding the sæter was beautiful; on the other side of the lake was Sauerflot, a vast undulating plateau. The aspect of nature was severe, for there was no green to give color and variety to the landscape; the lakes lay hidden in the depth below, and the valleys through which coursed the tributary streams appeared from a distance like ravines, crawling, dark and snake-like, over those immense rocky plateaus. A grand view was that to the west, where the Vasdals Eggen and Nups Eggen ranges, 5530 feet high, rose into view; their peaks and some of the plateaus were covered with snow, and the ravines seemed filled with it.

I remained at Björn Vand sæter for a few days, while Samson went to another mountain home. I spent the time in hunting and roaming alone over the wild tract; Marthe and

Ambjör never ceased to wonder that I had crossed the great ocean. They took excellent care of me, though I could never eat or drink enough to satisfy them: before starting in the morning there was always a dispute about the provisions for the day, as they wished to load me with more than I wanted. When I was ready to start for the day's excursion, they would say, "Be careful to come before dark, for it would be very difficult for you to find your way at night;" and the last words I would hear were, "Velkommen til bage" (welcome back). Like all sæter girls, they were busy all day. When I returned in the evening I generally found them mending nets, which they were going to stretch across the mouth of a little stream emptying into the lake, in order to catch trout for my breakfast the next morning. These were fried in delicious butter.

On the 8th of August the weather suddenly changed in the evening, and the chilly north wind blew through the crevices of the hut. It was so cold on the higher mountains that the cows came to the sæter, which was lower, and where it was much milder; their bells awoke us. The girls went out to see what was the matter, and counted the cows, to see if any bears had disturbed them. In the morning the ground was covered with hoar-frost.

When the day of parting came a substantial breakfast was served, with two cups of coffee, for I had to drink an extra one. Marthe, who had noticed that I wore only thin cotton socks, insisted upon giving me the thick woollen stockings she made me wear on going to bed. Ambjör gave me a pair of thick gloves, and I had to take a cheese with me. They insisted upon accompanying me as far as the outlet of the lake, which I had forded every day in my rambles. We parted there, and as I got into the water I put a little money into their hands, and thanked them for their kindness, hospitality, and trust. "Don't forget to come and see us. Our fathers, and mothers, and families will be glad to see you. Happy journey, Paul, and God be with you," were the last words I heard. I have since been to their farms, and we have written to each other; but I have not heard from Marthe for some time; perhaps she is dead, or I am forgotten. Several times

I have been to Ambjör's farm, as it was more on my way. The last news I had was that she was married. That she may be happy, is the sincere wish of her friend Paul.

I close the chapter by giving to the reader the translation of a letter received from her, and another from my guide over the mountains:

HERR PAUL DU CHAILLU,—I received yesterday thy welcome letter of December 24th, with the enclosed present to me, for which accept my heartfelt thanks. I also saw by thy letter that thou art well, and that made me very glad; and I can also tell thee that I and my folks live in our usual health. I was afraid, when such a long time passed without news from thee, that thou hadst entirely forgotten me, until I got thy former letter of November 9th, for which I also heartily thank thee, as these letters and the enclosed present show the reverse; but thou wilt excuse my remissness in answering the first one.

I see by thy letters that thou intendest to come here next spring, and I assure thee that I look forward longingly to that time, and thou wilt allow me to ask thee to give me nearer information as to what time thou mayst be expected.

Thou art hereby most kindly greeted by thy affectionate friend,

AMBJÖR OLSDOTTER.

HERR PAUL DU CHAILLU,—Thou art sincerely reminded of Niels O. Overland, in Sönde, and for that reason I take the pen in my hand and inform thee about my health. I can never forget how much enjoyment we had when we were together at Haukelid sæteren, near Röldal. The little tin-pot thou gavest me I have preserved as a reminiscence of that time. Now I can tell thee the news that I was married, June 20th, 1875, to a sister of Ambjör, a little older than Ambjör, and who was not home the time thou wast there. She was servant to my parents in Sönde. Her name is Berte O——. Eight days ago I was with my father-in-law, Ole Vraalsen, and then I saw the present thou hadst sent to Ambjör, and read the letter. I read that thou intendest to visit Röldal next summer, and that thou hadst intended to come the past one, but hadst been prevented; and therefore we expect to see thee next summer, and I will then go to Röldal and talk with thee. In case thou thinkest of coming over Christiania, and shouldst want a guide on the road, I will meet thee there, and accompany thee to Röldal; but then thou must tell me what time thou wilt come. Ole Vraalsen's family asked me to send their hearty greetings; and, first and last, Ambjör sends many thanks for the present thou hast sent her, and will preserve it as a dear remembrance of thee. My *kone* (wife) wishes it was possible to see and speak to thee, as thou hast been so uncommonly kind (*snild*) to her sister Ambjör and her whole family. Ambjör feels very sorry that she did not return from Odde to Röldal, so that she could have gone with thee on an excursion to Bergen. I can also greet thee from Helge H. Rabbe, Niels H. Heggen, and lensmand U. H. Juvet, and all wish to meet thee when thou comest to Röldal. For this time I must end, with a dear and friendly greeting from me and my wife. Thou must write to me, and thereby do me a great favor. Respectfully, etc.,

NIELS O. OVERLAND.

CHAPTER XXVI.

Christiania.—Latitude of the City.—Characteristics of its Inhabitants.—Houses.—Mode of Living.—Kind-hearted and Hospitable People.—Delightful Homes.—Christiania Society.—A Kingly Repast.—Distinguished Guests.—Norwegian Writers.—The Royal Palace.—The University.—Public Buildings.—The Environs of the City.—The Christiania Fjord.—Oscar's Hall.—Frogner Sæter.—Sarabråten.—Departure from the City.

At the inner end of the long and charming Christiania fjord, at the foot of wooded hills, lies Christiania. It was late in the autumn when, for the first time, I entered the capital of Norway, and months after I had been in Scandinavia. I was tired from my summer rambles. The weather had been so rainy for the past few weeks that I was glad to come to a city for awhile. I found comfortable quarters at the Victoria, an excellent hotel, which is always crowded with tourists in summer, but was at that season of the year deserted by them.

The city is in latitude 59° 55′: 3° 58′ north of Edinburgh, and 1° 15′ farther north than Duncansby, the most northern point of Scotland, and has a population of 116,000 souls. It is a thriving place, rising in importance every day, being the seat of the Norwegian government. The King of Sweden and Norway is obliged, according to the constitution of the country, to reside here three months of the year.

As the stranger wanders through its broad streets he is struck by the steady, thoughtful demeanor of the inhabitants, which is but a reflection of the national character, and which reminded me in that respect of Göteborg, in Sweden. The city presents no striking features; the houses are stuccoed generally, not very high, and roofed with tiles, and the people reside chiefly on flats divided into apartments; but within a few years a large number of villas have been built, and in the new parts of the city are beautiful gardens surrounding many of the houses, and some of the private residences are very fine.

There is an appearance of thrift and comfort; order and good behavior prevail everywhere. Along its quays vessels are continually loading or discharging their cargoes, and steamers leave at all hours of the day for the cities, the commercial marts along the coast, or for distant European seaports.

I often love to think of Christiania and of its kindly and hospitable inhabitants, of the frank and heartfelt Norwegian greetings I received from my friends. No kinsman of theirs from a foreign clime was ever more welcome each time I returned from my wanderings in their land. How pleasant are many of their homes, situated in some delightful spots within the radius of the city, and from which views of the fjords, mountains, or a charming rural landscape is obtained: they are surrounded by pleasure grounds, luxuriant trees, and beds of flowers. The well-to-do people are simple in their tastes, live comfortably, and are fond of home-life. The long winters are relieved by social amusements; skating, coasting, sleighing, dinner, dancing, and card parties, with musical entertainments, help to pass the dark days pleasantly.

Society is agreeable. The ladies, like their Swedish kinswomen, are well educated, proficient in the use of foreign languages, very attractive, amiable, and cultivate simplicity of dress — in a word, they are charming. The gentlemen are warm-hearted, polite, obliging, and there is a freedom and manliness in their bearing which always pleased me. It is only when admitted to their homes, not once but many times, and treated as a friend, that one can get an insight of the fine and noble qualities of the Norwegian character.

I met many educated men, and these were ever ready to serve me or give me all the information I wanted, making light of the trouble or inconvenience to which my request subjected them. One would send a work which he thought might be useful to me, another a map, or the government statistics, and so on, telling me where I should go either for scientific purposes or to study folk-liv (people-life), or to see some magnificent scenery, and whenever I started, letters to friends or relatives were handed to me, so that I might not be friendless. If a person knew of no one in the district where I was

going, he would go to an acquaintance and ask for an introduction for me. The day after my arrival I delivered the letters of introduction I had carefully preserved. These opened to me the doors of many houses, where I was at once welcomed, and received with great kindness. Friends were soon made, and during my stay of a fortnight I was taught to know what Christiania hospitality meant.

My first visit was to Consul Tho. Joh. Heftye, to whom I was indebted for many and various kindnesses, received from him even before we had met. The consul is an able financier, and has written several works on finance; a man of vast information and broad views, who, in spite of his large and extensive banking business, always finds time to be sociable with a friend. He is the president and one of five directors of the Turistförening (Tourist Society), whose object is to give to the people a taste for mountain exploration. Among the members are the king and the royal family. The consul is an indefatigable mountain climber and explorer, and in many mountain districts his name is a household word, for they love him for his genial kindness, his simple and unostentatious ways while among them, and often I have heard the bönder people say, when showing me his photograph, "Here is a man who is not proud." I am very much indebted to him for a great deal of personal kindness, warm friendship, and useful information. "You must dine with me to-morrow," said he, "and we will talk about what you want to do, and at the same time I will introduce you to some scientific and other gentlemen with whom I want you to become acquainted." If I had had any thought that a splendid entertainment could not be given in Christiania, it was soon to be dissipated. The large and handsome mansion of the consul is surrounded by acres of well-laid-out grounds, from which a beautiful view of the Christiania fjord is obtained. I ascended a flight of stairs in the midst of small forests of tropical plants and flowering shrubs, which reminded me of a warm climate. The effect of the lights was beautiful. I was ushered into one of the large drawing-rooms, and the host presented me to his charming wife, and then all round. A large company of

distinguished men had been invited: professors of the university, writers, journalists, scientific men, officers of the army and navy, foreign consuls, members of the Storthing, clergymen, etc. More than forty guests were seated before a sumptuous banquet. It was a kingly repast. After soup the glasses were filled, and the host, after looking around the table, said, "Velkommen til bordet" (Welcome to the board), this being the usual way of greeting the guests, among whom were some of Norway's most noted scientists. Such was my first introduction in the capital. The next entertainment was given to me by a distinguished manufacturer, Halvor Schou, also a man of great wealth, and much respected by his fellow-citizens.

Among the first to welcome me were the learned friends I had met before in the North, including Peter Christian Asbjörnsen, one of Norway's distinguished writers, whose name is a household word in the cottage of the mountaineer, in the fisherman's cabin, or in the home of the rich; for what Norwegian does not know his "Folke Eventyr," "Huldre Eventyr," and many other of his tales, where the old sayings of the people are so well told? Besides, he has written on education, forestry, and many other subjects. Few men in his country are more respected than he. But few persons have travelled over Norway more than he has done; his energy is wonderful, in spite of his sixty-two years and portly form. He has journeyed extensively over Europe, and now every year he travels thousands of miles over his native land. His kindness prompted him at once to see how he could be useful to me in my journeys through his country, and his letters proved of the greatest service. He is, in many respects, a perfect type of a Normand (Norwegian). Professor J. A. Friis, another fellow-traveller in Lapland, kindly gave me some of the photographs of that country to illustrate my works.

The public buildings are not remarkable for their architectural beauty. The palace, built on three sides of a square, is picturesquely situated, surrounded by pleasant grounds. The university building, which is massive, contains a fine library, a zoological and a geological museum. The collection of

northern antiquities is not extensive, but contains some very rare and valuable specimens, among which are gold and silver ornaments, worn by the former inhabitants in heathen times, and valuable coins. In the national picture galleries are some landscape paintings of great beauty, by Norwegian artists, some of whom have attained a world-wide celebrity.

The Storthing is a handsome building, facing Carl John Square, the finest square in Christiania. The pleasantest promenade is by the castle of Agerhuus, which defends the approach to Christiania: its ramparts have been laid in graceful and shaded walks. There are numbers of fine stores, and those of the silver-smiths are specially tempting, the stranger finding in them many beautiful objects, which he frequently buys to take home. Hotels are numerous, but as a rule expensive. The public schools and other institutions are a credit to the city. The environs are extensive and beautiful; the fjord is dotted with islands, and on its shores are villas, lovely woods, and smiling fields. Some of the drives lead to charming, wild, and secluded spots; the highways leading into the country pass through the midst of beautiful scenery. The Christiania fjord is about seventy miles long; but the stranger who only comes to Christiania does not get any conception of the grandeur of Norwegian fjords, and the same may be said of the scenery.

Oscar's Hall, the summer country-seat of the king, is at a short distance from the city: it is built on the shore of the fjord. The paintings of Tidemand here, illustrating the peasant life in Norway, are remarkable.

Frogner sæter, 1700 feet above the sea, belonging to Consul Heftye, is but a few miles from the city. From there a superb panorama of the fjord, extending all the way to the sea, may be enjoyed; and, looking in the opposite direction, the same extended view is obtained. The approaches to the place are through a large and dark forest, by a road built at a heavy cost to the owner. Sarabråten, situated in a wild region overlooking a picturesque lake, is a romantic spot, belonging also to the same owner, whose love of wild scenery has prompted him to build at these places houses like those constructed in olden times. The winter scenery at both places, with the trees

overloaded with snow and icicles, is perfectly lovely; and not the least among the pleasant reminiscences I have of Norway are the agreeable days I have spent at Frogner sæter and Sarabråten. There is direct railway communication with Stockholm and Trondhjem. The ways of exit from the city are numerous. In summer the many tourists generally prefer to travel by cariole. Comfortable steamers leave daily for different parts of the fjord and for Frederiksstad, near which is the fine water-fall Sarps-foss. Those who wish to make a longer voyage and see the coast scenery have to take steamers which go north to Bergen or North Cape.

CHAPTER XXVII.

The Island of Gotland.—Wisby.—Its former Commercial Importance.—Saga about the Island.—Relics of Ancient Times.—Memorial Stones.—The Former Inhabitants Vikings.—Fortifications and Ruins of Wisby.—Its Former Prosperity and Fall.—Old Coins.—Once Princely Merchants.—Churches.—Tenth, Eleventh, and Twelfth Centuries.—The Crypt of St. Göran (George).—St. Lars.—St. Nicholas.—Ruins.—Rambles on the Islands.—Numerous Churches.—A Fruitful Country.

ANOTHER winter had gone; the pleasant weather had returned; the sun was getting warmer every day, though the air was chilly; vegetation was more forward than the year before. The southern shores of Sweden, on the Baltic, were now clad in the mantle of spring; the birds and swallows had come back, and the warbling of the nightingale was already heard in the groves by the sea. The days were fast lengthening, the sun rising nearly at three o'clock, and the long twilights added much to the charm of the mornings and evenings.

On the 22d of May I was once more sailing on the Baltic; in the distance the soft outlines of an island rose above the sea—it was Gotland. Approaching its shore, the view became beautiful, the extensive line of coast being marked by yellow limestone cliffs, dotted with dark woods, thrifty farms, and windmills, while the ancient town of Wisby, with its ruined but massive walls, upon which the old dark towers stood like sentinels, seemed to watch over the place as in the days of old, and to frown upon the sea. The city rose in the form of an amphitheatre, and the white queer-shaped houses and the ruins of churches, partly hidden by groves of trees, made the place appear still more venerable in the bright sunshine.

Gotland, the largest island of the Baltic, is between 56° 55′ and 58° lat., lying almost in the midst of the sea, opposite the province of Courland, in Russia, and the Swedish province of Småland. It is nearest to the Swedish coast, with which it

runs parallel. This island was once a seat of great power, the chief emporium of the trade of Northern Europe, and in its day had no rivals. The time of its settlement is lost in the dimness of antiquity, and the only record we have of its most remarkable history is found in the "Gotlands lagarne," thought to be a supplement to the laws of the country. This saga is supposed to have been written about the year 1200, and is in the old Gotlandish language. Gotland, or Gutland, means the land of Gotarne or Gutarne (Gotmen), and these settlers were supposed to belong to the race which came from the Black Sea, overran Germany, and settled in the southern part of Sweden and in Norway.

"In the days of old," says the saga, "a fair and beautiful island, low and dim, floated on the sea by night, and the people beheld it as they sailed to and fro; but each morning, at sunrise, it disappeared beneath the waves, until the evening twilight had come again, when it would rise and float over the surface of the Östersjön (Baltic) as before. No one dared to land upon it, though the belief was general that it would become fixed if a fire was lighted there. Thjelvar, or Thjalfer, with his men, finally landed in a little bay of the floating island, and lighted a fire, and the island became stationary," and to this day there is a bay called Thjelvarvik, and a heap of stones near by is supposed to be Thjelvar's grave; but the time of his landing, and where he came from, the saga does not mention.

This saga also says that "afterwards the people so increased that the land could not feed them all; then they drew lots, and every third person was required to leave; but they refused, and fortified themselves at a place called Thorsburg, whence they were expelled. They afterwards went to Fårö, but were again driven away; they then went to Dagö, and built a city there, but were not there long before they were once more expelled; finally they went towards the river Düna, in Russia, travelling till they came to the Byzantine Empire, on the Black Sea."

The original inhabitants of Gotland were also heathens, and offered human sacrifices in holy groves on the hills, and these were enclosed. They believed in Thor and Odin, and many of the names of the farms and places to this day remind one

of the gods and goddesses of the Walhalla. The word thunder in the Gotland language is certainly meant for Thor (God of Thunder), who, when angry, struck terror into the hearts of the giants then dwelling in the North.

The island is one of the richest places of the North in relics of former times, especially the eastern shore, where there are numerous burial hills, or tumuli, remains of ship forms, called *slonkers*. Great numbers of antiquities discovered in the earth in many places show that piracy and commerce were the chief occupations of the inhabitants, who grew rich by plunder. But few relics of the stone and bronze ages are found, most of those thus far discovered belonging to the iron age. Among the most interesting remains are the memorial stones, standing erect and rough, with rude markings, some representing a Viking's boat, with mast and sails and high prow, with many men on deck, and above these others, all engaged in fighting; over these are figures of men and animals, so roughly done that it is difficult to recognize them.

One of the delights of the stranger travelling through the island is to meet everywhere these tokens of the past, dating either from the heathen times or from the earliest dawn of Christianity.

The tumuli, or the oldest graves, like those found opposite in Östergötland and in the southern part of Scandinavia, are very scarce in Gotland, there being only two. The great number of old graves here are made of small boulders thrown together in heaps, in the midst of which is an urn of clay containing ashes. By the side of the urn are often found charcoal and burned bones. There are very few unburned skeletons. The stone tumuli are often encircled by a single or double row of rounded stones. Small burial-places are made of four slabs, with an urn containing ashes. There are tablets with Runic characters, but the writing of most is so defaced that it cannot be read. The number of these inscribed stones already found is very great. They are found standing or prostrate, and were most probably memorials placed over graves. There are also memorial *crosses*, belonging to the Christian period, as late as the fourteenth and fifteenth centuries, also bearing Runic char-

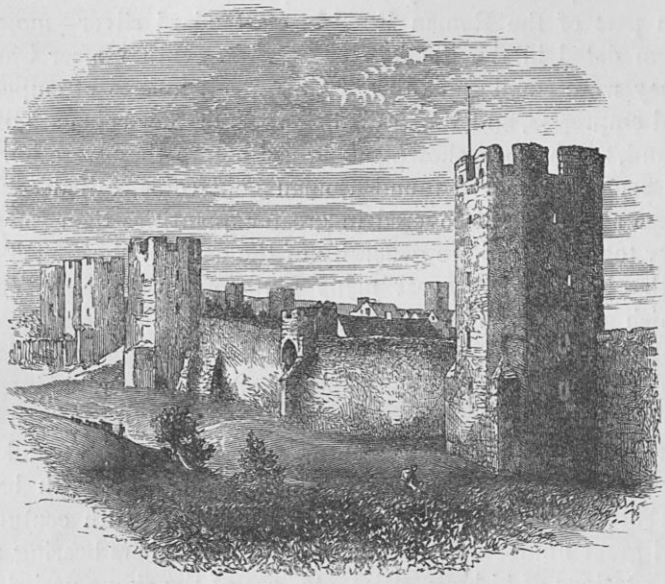
acters. One also sees many old fortifications, with a round wall of earth, or surrounded by rough stone walls.

There is no doubt that the inhabitants of the island, like those of Norway, Denmark, Sweden, and the eastern coast of the Baltic, once consisted principally of Vikings, who made long and dangerous expeditions, and every record left on the island points to the conclusion that all were of the same race. But as the Gotlanders became richer, they excited the envy of the piratical bands or neighboring chiefs inhabiting the shores of the Baltic, and thus became constantly involved in war.

There is always something very impressive in visiting old ruins. It is seldom that the merry sounds of mirth are heard by those wandering under the shadows of crumbling walls, or among the fallen pillars which have battled against centuries, and at last succumbed. They seem to sober the thoughts, and impress one with the littleness of man; one feels that those who built them, long since dead, were men of like nature with himself. It is not difficult for us to imagine the scenes of life of which they were once witnesses; but the silence which surrounds the spectator impresses him with reverence and sadness. The fortifications and the old churches of the town were built, to all appearance, of stone from the quarry upon which the city stands, and the whole aspect of the place, as one wanders through its streets, is strange. Here and there, among the more modern buildings and cottages, appears an old Hanseatic house, or an odd-looking warehouse, with crumbling walls, covered with ivy, and overhung by linden, walnut, mulberry, and elm trees. Picturesque ruins, dating back hundreds of years, and silent graveyards are mingled with the dwellings of the living, who here adorn the porches of their houses with tomb-stones, engraved with names, queer inscriptions, or fanciful carvings.

The period of the foundation of the city, as well as the settlement of the island, is uncertain; but, whatever may be its ancient history, in the tenth, eleventh, and twelfth centuries it rose to great commercial importance, and carried on a very extensive traffic. Traders came from England, Holland, Russia, France, and from the Mediterranean and other parts of

Europe. In the year 1237 King Henry III. of England allowed the people of Gotland to import or export goods without payment of duty. Some of its merchants were enormously wealthy, and they were found trading with Asia and different countries of Europe. All the merchants of the world were admitted within its walls. At that time the traffic from India, Persia, and other parts of Asia, came by the river Volga as far as Novgorod, and the trade increased as the wars in the East took place. The wealth of the people became fabulous, and the mania for building churches then commenced.



WALLS OF WISBY.

The city had an eventful career, and was subjected to many sieges and sackings. The walls now standing were built in the year 1288; thirty-six towers were erected by the inhabitants of the island, each *ting* (county or parish) building one. The walls are loop-holed, and two towers guard each gate. There are still visible the remains of the narrow slits through which the garrison could pour boiling oil, hot water, or molten lead upon the enemy. Besides these walls and towers three ditches

were built outside of the walls. There now remain twenty-eight towers, many of which are from sixty to seventy feet in height, and a few smaller ones between are yet standing.

The town once numbered over 12,000 burghers, and a great number of artisans lived outside the walls when the place became too small for their accommodation. The city was then independent, made its own money (of which many pieces are yet found), and raised its own military forces.

The island is especially rich in coins. In 1870, at Sindarve, in Hemsö, more than 1500 were found in one place, weighing over ten pounds — they were imperial coins from the western part of the Roman Empire, of standard silver—most of them dated in the last half of the first century after Christ. They were small and thick, with well-cut images of emperors and empresses, and were called *denarii*. Other coins are often found, much worn, showing long use before they were buried. In some places are found Roman gold coins, called *solidi;* these are never discovered in greater quantities than forty or fifty together, and are generally of the dates of the fourth and fifth centuries. A great many Kufic coins are also found, which came from Kufa, Bagdad, and also from Samarcand, Bokhara, and other Asiatic cities; these are generally large and round, without effigies, and covered with Arabic inscriptions on both sides; more than 10,000 of these have been discovered on the island; the oldest are from the sixth, and the newest from the tenth century. English coins, with badly executed faces of kings, from the ninth and tenth centuries, and great numbers of German pieces, and others bearing representations of bishops, cities, etc., are of the above period.

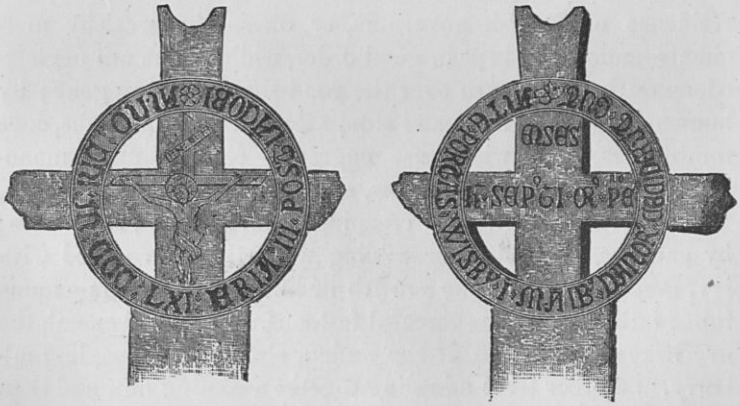
I procured a silver coin which a farmer had just ploughed up, bearing the image of the Roman Emperor Commodus, son of Marcus, who ascended the throne A.D. 180, and died A.D. 192. Valuable ornaments have been exhumed, consisting of rings, plain, twisted, or braided; simple rings for the neck or arms, made of silver or gold, and sometimes decorated with pearls; ornaments of bronze; shoe-buckles; figured belts and girdles; hair-pins; silver, and twisted bars of silver and gold, made to be cut up in pieces, and probably used as mediums

of value; beads of amber, and of glass, and clay of many colors; combs of ivory, and many other things.

Some of the seals of the once powerful guilds are still preserved, each inscribed with the name of a patron saint.

The city, in the height of its prosperity, possessed within its walls not less than fifteen churches and two convents; outside the walls, one church, and one convent for nuns; many of them were built by merchants of other countries residing in the town. During the eleventh and twelfth centuries more than one hundred churches were built on the island, most all of which now stand, and public worship is held in them; some are very beautiful in their architecture.

This remarkable city was several times besieged, its wealth provoking the envy of powerful neighbors. Notwithstanding its fortifications, Wisby was taken by storm, in the year 1361, by Waldemar III. of Denmark: the old treaty had long before become a dead letter, and Sweden could do nothing against the power of Denmark. The plunder was enormous, the gold and silver ornaments of the churches forming a great part of it. Waldemar entered the city through a breach at the southern



MEMORIAL CROSSES.

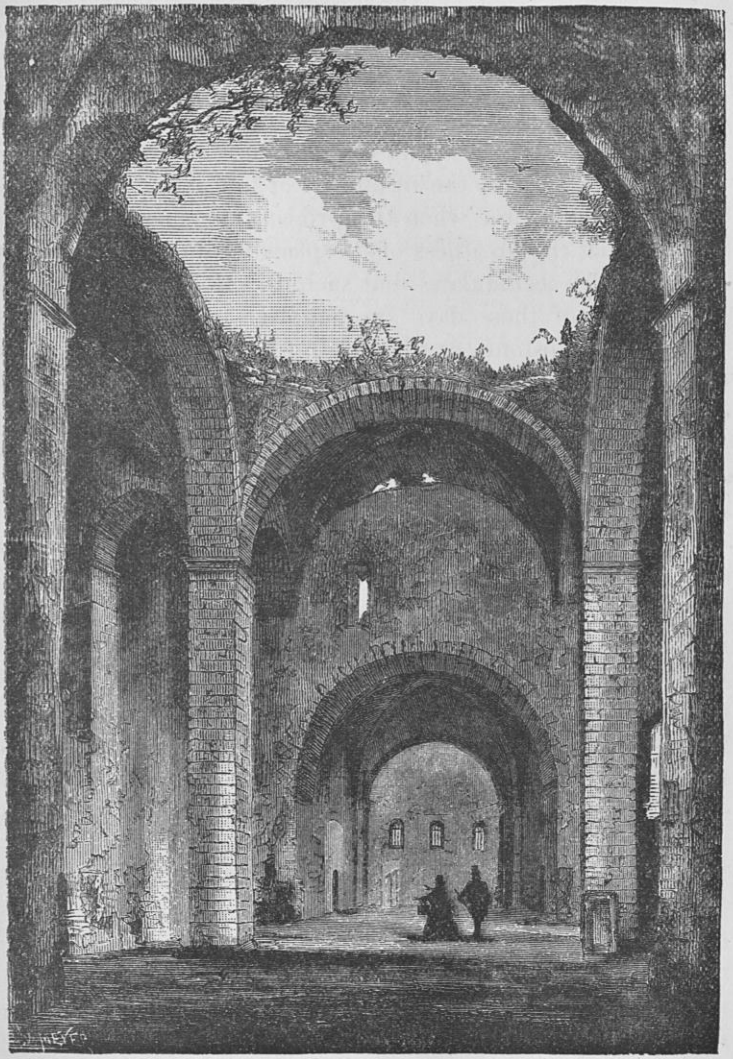
gate, near which now stands, as a solitary monument of the siege, a cross, put up to the memory of the slain, with a Latin inscription, still legible, of which the following is a translation:

"In the year 1361, the Tuesday after St. James's Day, the Gotlanders fell before the gates of Wisby by the hands of the Danes. They lie buried here. Pray for them."

But the booty which the victorious king carried away with him did not reach Denmark, the vessels conveying it foundering in a storm near the island of Carlsö.

Ruins tell the story of the rise and fall of the town, and remind one forcibly of the instability of human things. There was no doubt a time when the princely merchants of Wisby thought that the greatness of the place would endure forever, and its wealth accumulate—but such dreams have passed away. The people of those days are forgotten; they lie unknown under the tombstones or the sward of the church-yards, where they were buried hundreds of years ago. The silent mementos of the past have no tale to tell of the barter and festivity of former times; but the pages of history and the record of the crumbling ruins show that this was one of the most famous commercial cities of mediæval Europe.

Let us linger awhile in the midst of this strange town, now fragrant with the perfume of cherry, plum, and apple blossoms; let us walk by Hanseatic mansions and warehouses, once the residence of Danish governors, or owned by wealthy merchants—some still kept in good order, while others are neglected, appearing to mourn over the good times that are gone; by houses with rough steps and stoops floored with old slabs, once tombstones, upon which are engraved coats of arms, monograms, inscriptions with dates, scrolls; by humbler cottages, with windows green with creeping plants, shrubs, or flowers; by gardens, and old or crumbling walls, thickly covered with ivy, green and fresh, the growth of hundreds of years—sometimes falling in heavy, graceful festoons. We pass beneath the overhanging branches of the linden, elm, walnut, maple, mulberry, and other trees mingling together, coming now and then to a grand old ruin; while the old walls and towers appear here and there, with the deep-blue sea in the background, and the fishermen's boats stranded on the shore of the little port of Wisby. Sea-eagles are flying over the water, watching for their prey, and the shrill cries of the gulls are heard. Deep



SANKT LARS (ST. LAURENTIUS).

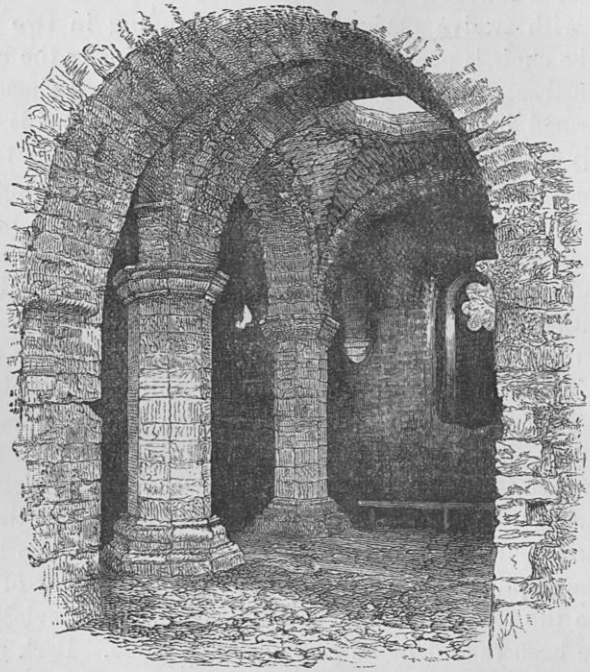
caves have been cut in the face of the cliffs by the waves, which during the warm days of July are a favorite resort for those who are fond of marine views.

One of the finest ruins of the city is that of St. Katarina (St. Catherine), erected by the Franciscan monks about 1233, later rebuilt as a convent. The body of the church is an oblong square with twelve octagonal pillars standing in two rows, while the choir is pentagonal in shape. Originally the edifice was constructed in pure round-arch style, but has since been transformed into that of pointed arches. The roof is gone, and only these arches remain, which appear as if ready to fall. The grass is the only floor, most of the stone slabs having been taken away for door-steps and other purposes; but I noticed one upon which was chiselled the figure of a priest, and in his hand a chalice, on which was cut the date of 1380. Under the southern part of the church there is a small crypt.

From the top of the ruined church of Helge-Ands (Holy Ghost), built in the beginning of the thirteenth century, I obtained a fine view of several other ruins, and the outside of the church of St. Göran (George), which has a sort of crypt, above which is the main church; the lower part is 84 feet long by 47 wide, upheld by four pillars about 14 feet high; the windows and doors are rounded. The upper part is supported by four round pillars 10 feet high, and from this a flight of stairs leads to the roof; in the walls are several deep crevices, said to have been caused by an earthquake in 1540. Back of this church is the hospital of the parish.

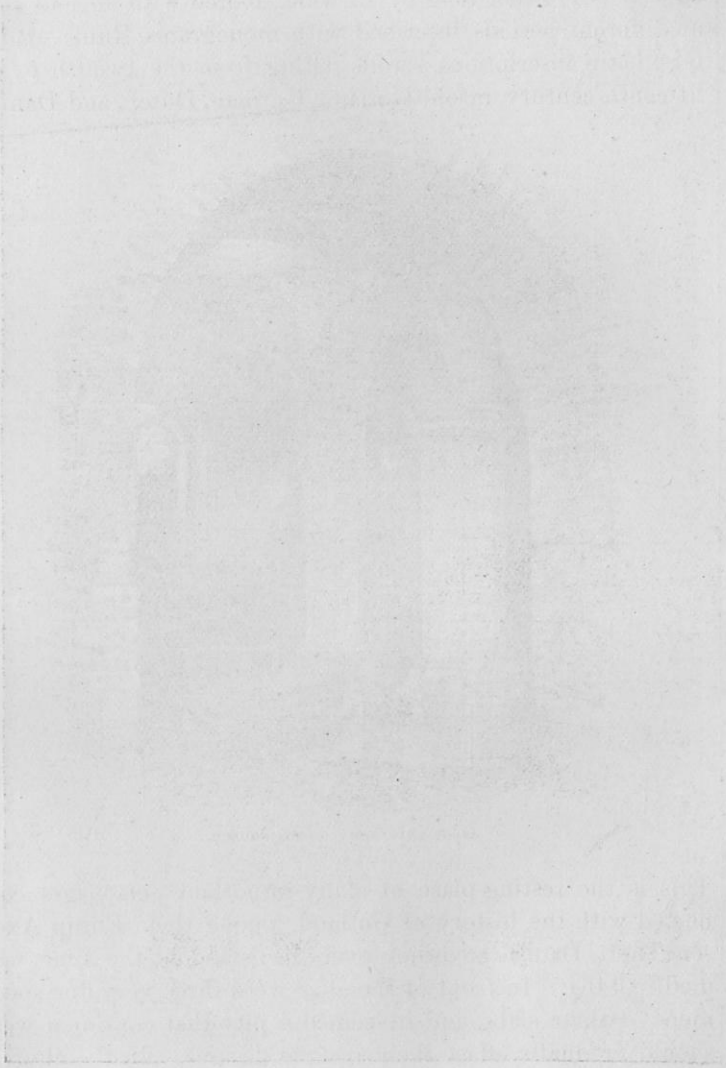
Not far from Helge-Ands are the ruins of Sankt Lars (Laurentius) and Drotten (Holy Trinity), within twenty or thirty yards of each other. St. Lars was built in the shape of a Greek cross, and, like its neighbors, belongs to the middle of the twelfth century. There is another church of that style of architecture in Gotland. Inside it is 106 feet long by 76 wide. Along the outer wall is a gallery extending around three sides, approached by two flights of stairs on each side, and each gallery is separate; the arches are rounded. St. Lars is said to be nearly half a century older than Drotten. St. Maria, said to have been consecrated in the year 1225,

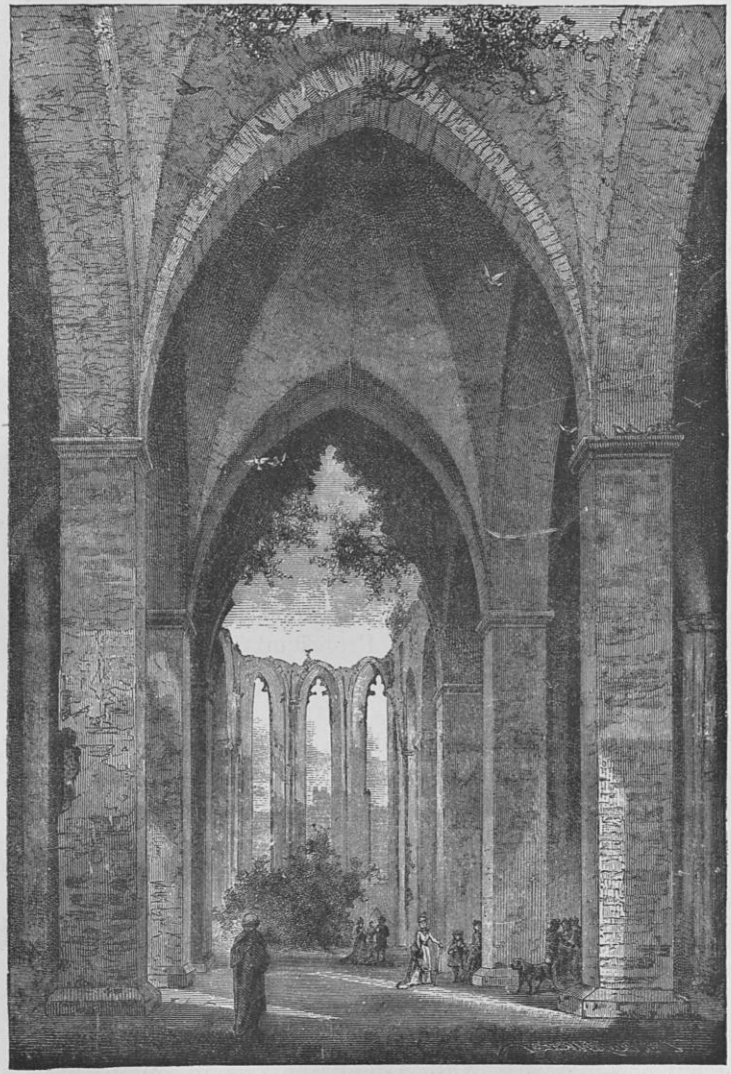
is the only church in Wisby where public worship is performed. It is 173 feet long by 75 wide, floored with ancient slabs of different periods, inscribed with monograms, Runic characters, Latin inscriptions, scrolls dating from the twelfth to the fifteenth century, in old Gotland, German, Dutch, and Danish.



HELGE-ANDS (HOLY GHOST) CHURCH.

This is the resting-place of many important personages connected with the history of Gotland, among them Philip Axelson Thott, Danish governor over the island at the time, who died in 1464. In front of the altar were three very fine specimens of these slabs, and it seemed a pity that continual wear should gradually efface their antique designs. In the churchyard were some gravestones, dating also from 1300 to 1400; some had been used several times, as appeared by the succession of dates. Near this church are seen the bones of a whale, which were believed, in former times, to be the remains of a





ST. NIKOLAUS (NICHOLAS) CHURCH.

virgin giantess who had built the edifice. I asked Dr. L——, my informant, who was the wicked fellow who had dared to hint that those were the bones of a whale: "No other than Linnæus," said he. In the old chronicles it is related that a fish was caught near Wisby which screamed like a man, that all who heard and saw it marvelled, and that it was hung up in the church of St. Maria.

From St. Maria I went to St. Nikolaus (Nicholas), built about 1240, which is a beautiful ruin, and was the largest church in Wisby. It belonged to the Dominicans. It has a mixture of round and pointed arches; the inner width is 65 feet, and the length 199 feet; ten square pillars remain standing, two of which are damaged. The main building has twenty-two windows; on the west side are three, very gracefully pointed.

Among the churches, of which hardly any vestige is left, is St. Gertrude, built by the merchants of Holland, which lies one hundred paces south-east from St. Nikolaus; its length was about 65 feet, and 23 feet broad.

St. Hans is one of the oldest and largest in Wisby. It was the church in which the first Protestant minister preached, about 1525; hardly anything is left of it. St. Jakob and St. Mikel were entirely destroyed.

From ruin to ruin I rambled on, until all had been examined, and I finally found myself once more by the dark, gray, gloomy walls and towers, every one of which had a history of its own. The *ringmuren* (fortifications and walls), which encompassed the whole town, enclosed an area of 135 *tunnland* (about 170 acres).

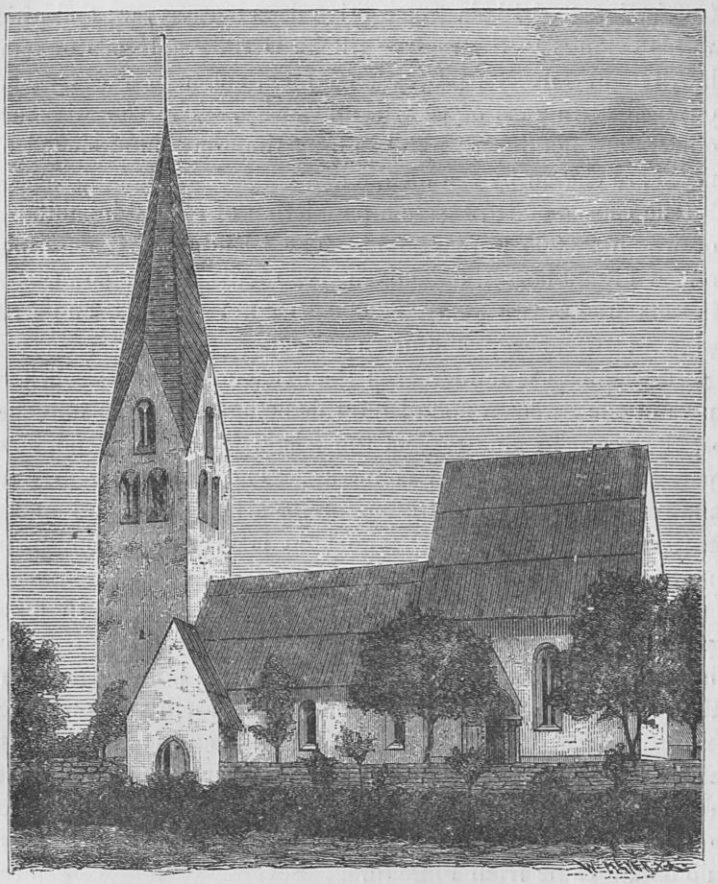
Leaving Wisby by the old Norreport (north gate), flanked by two towers built to defend it, I found myself at once in the country. Roads crossed in every direction, so that one could travel wherever he pleased. A few of the farms appeared thrifty; but the majority of the population live in small houses, plastered over. The winter wheat and rye looked well, and the people were busy in the fields; many were planting potatoes. The country is fine in many districts. The houses were small, but clean and white, with steep slanting roofs, the win-

dows filled with potted plants, surrounded by gardens and orchards, smiling fields and meadows, and hop plantations, showing that the farmers were in good circumstances. The land here is divided among many persons, and each tries to make his small estate as productive as possible.

Now and then we would come to one of those graceful churches in which the island is so rich. There was something so quiet and restful about them that it almost made one feel as if, when the time should come, he would like to rest there. The lilacs in full bloom, the violets amidst the grass, the green fields and meadows, all added to the charm of the drive; several fine oaks grew by the roadside, and the plum, pear, cherry, and apple trees were in full bloom. The spring seemed to begin here at about the same time as in the neighborhood of New York city in ordinary years. The birch, oak, elm, ash, hazel-nut, poplar, mountain-ash, and aspen are found in many districts, and to the south the walnut and mulberry flourish.

The farmers were ploughing, and starlings followed in the furrows to pick up the worms. Many farm-houses were neat but small. Each farmer seemed to have a mark of his own; the agricultural implements and other articles being stamped differently. This old custom is called *Bo-märken*, and each family has inherited its distinguishing mark from its ancestors. Each parish has its own *Bo-märke*. Along the road, in several places, the limestone crops out above the soil; we passed forests of fir, pine, ash, with a few oaks, and encountered boulders and swamps from time to time. Several women were busy cutting potatoes, which were to be planted on the following day. The dwelling-houses in many places were built of limestone, roughly covered with mortar, and generally roofed with red tiles, but some were roofed with planks, and others were thatched. Little boxes were fastened to the trees in the yard for the use of the birds; everywhere we heard the thrushes singing, and skylarks filled the air with their notes.

The country near the sea is charming. The cliffs form a high ridge, and upon them are fine groves of pine and other trees; while the fresh green tints of spring lend additional beauty to the landscape. Walking along the beach, distinct



GARDE CHURCH, IN GOTLAND.

and unmistakable evidence of the slow rising of the land meets the eye everywhere; in some places, at a considerable distance from the shore, large and high pillars of limestone have been hewn out of the cliffs by the action of the sea, and they stand there as marks of the ancient shore against which the waves have beaten.

The architecture of many of the churches is very graceful, and that of Garde gives a fair idea of the style.

There is a special militia for defence, which cannot be called away from the island. Every man from the age of eighteen

to fifty has to drill six consecutive days every year; and afterwards belongs to the reserve till he is sixty. Heads of families, tenant-farmers, professional men, and a few others, are only called in case of pressing necessity. The commissioned officers are nominated by the king; the non-commissioned officers are chosen by the men.

The census of 1870 gave a population of 53,946 inhabitants, of whom 28,205 were female. The island, at that date, possessed 11,000 horses, 8500 oxen, 1000 bulls, 14,000 cows, 4800 heifers under two years, 38,000 sheep, 700 goats, and 5700 pigs. Cattle, sheep, and grain are exported.

The climate is milder even than that of the most southern part of the Swedish main-land, this being due to the influence of the sea. In this respect the island is like England, compared with the adjacent countries. The elms are very fine; mulberry and chestnut trees grow to a large size, and grapes thrive well in espaliers. The flora is very rich, comprising more than 960 varieties of plants.

The geology of the island is very interesting. In many places, after removing the soil, sometimes for thirty feet, you come to the limestone rock, which has been polished and striated by glaciers. The superincumbent earth has preserved the rock from the action of the weather, and it is as smooth as glass—so much so that it resembles enamel. In several instances the grooving is a foot deep. The general direction of these grooves is from north-east to south-west; the glaciers, no doubt, came from Finland.

From Högklint (High cliff), not far from Wisby, 150 feet above the sea, and the highest point on the island, we obtained a most extensive view of the country. The indented shores and cliffs to the north could be seen for a long distance. The Baltic was perfectly quiet, and its waters so clear that the eye could penetrate to a great depth, even close to the shore. Between the cliffs were old bays and sea-beaches, not more than thirty, forty, or fifty feet above the present level of the sea, while in the water, at some distance from the shore, we could see unmistakable traces of a submerged beach, which, if the island continues to rise, will again show itself above the

surface. There are places on the island where forty or fifty different tide-marks may be counted, lying one above the other on the beach, proving incontestably that the land has risen slowly in the course of ages. Could this have been the origin of the legend before described? Geology has demonstrated that there have been alternate risings and sinkings of land at different periods, in this region as elsewhere—a demonstration which leads the thoughtful to reflect upon the great progress of the different branches of science—yet the attempts to correct the erroneous ideas of former times have been, and are even now, received with vituperation and obloquy by those who foolishly fear from these discoveries the overthrow of religion. But as new facts are brought to light year after year, the more beautiful the world seems to us, and the more marvellous does the wisdom of the Great Creator appear to our feeble understanding. It is sad to think that the only reward of diligent investigators has often been scorn during their lives, and that good people, from false notions of what they believed to be right, have too often heaped abuse upon the devotees of science. Happily for the cause of truth, these are undismayed by what frequently appears a conflict in which they must be crushed; for, their statements of fact being unanswerable, the power of unreasoning fanaticism is brought to bear upon them. Every one knows that no true progress can be made in investigation without discussion; but vituperation is not argument, and denials without demonstration of facts do not throw any light on a subject in controversy. True students have no other aim than that of the enlargement of knowledge. They work hard, and think still harder—often spending sleepless nights, carried away by the intensity of their enthusiasm, and forgetting the rules of health, till at last they are sometimes left like wrecks stranded on the shore. What is their object? To gain riches? No; for it would have been better for them and their families if they had thought a little less of science and more of the world. To gain knowledge, and to impart that knowledge, has been their purpose, and is to this day the aim of the true scientist.

CHAPTER XXVIII.

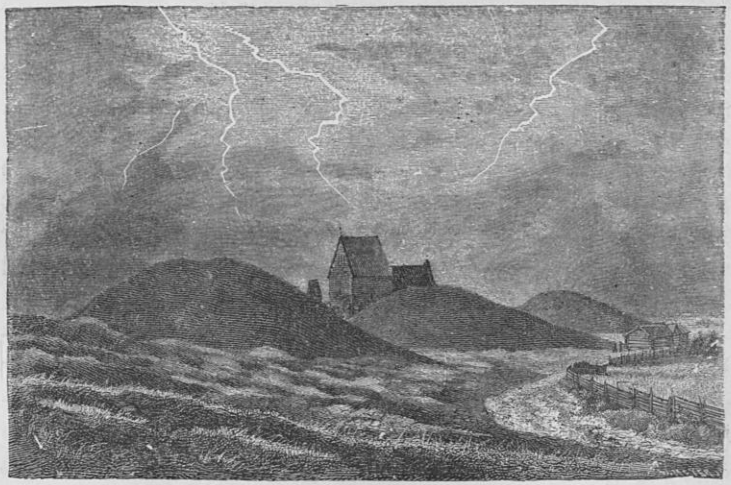
Upsala.—The University.—The Nations.—The Library.—The Cathedral.—Old Upsala.—The Kings' Mounds.—Excitement in Town.—The Students.—Chorus-singing.—Serenading the Young Ladies.—Song.—Ceremony attending the Delivery of Degrees. — Diplomas. — The Banquet. — Bill of Fare.—The Ball.—Swedish Young Ladies.—Governor of the Province.—His Scotch Descent.—The Old Castle.—A Concert.—Dinner at the Castle.—A Nobleman's Charming Family.

Upsala is a town dear to Sweden, not only on account of its great antiquity, but because it has been for centuries its great seat of learning. Upsala is essentially a university town; it has a population of about 16,000; the river Fyrisån flows through it, and the streets are wide, and paved with cobblestones. The University dates from 1249, and its revival under Gustaf Adolf, from 1613. In order to be admitted, the student has to pass a successful examination at one of the *elementarskolor* (high school). Formerly the examination was held in Upsala. The medical course occupies from five to seven years, and that of philosophy and law from four to five years. No man in Sweden can be a clergyman, a lawyer, or a doctor unless he has graduated at Upsala or Lund, the two universities of Sweden. The Rector of the University, who is changed every year, is chosen from among the professors. The students are divided into nations, according to the provinces or *läns* to which they belong; each nation has a building or suite of rooms of its own, used as a place of meeting for the members, and a library—the young men lodging in different parts of the town. They lead the joyous life of the students of Germany, with this difference, that the custom of duelling is unknown.

As the visitor wanders amidst the tombs and along the shady and flowery walks of the beautifully kept cemetery, he sees a huge structure of granite, somewhat rough, but massive and

imposing, which belongs to the nations of the University, and marks the resting-places of students who have died in Upsala.

The great men who have come from Upsala are the witnesses to the well-earned celebrity of that institution, and many of its professors have a world-wide reputation. Among the interesting buildings is the Carolina Rediviva. The library of the University contains some 200,000 volumes and about 8000 manuscripts, some of which are exceedingly valuable. Biblical students will find in this collection a Bible with marginal notes by Luther and Melanchthon, the "Codex Argenteus," a copy of the Four Gospels written in letters of silver, and many other valuable and ancient books. The cathedral is well worth a visit, if only for the sake of standing before the tomb of Gustavus Vasa, who lies buried there by the side

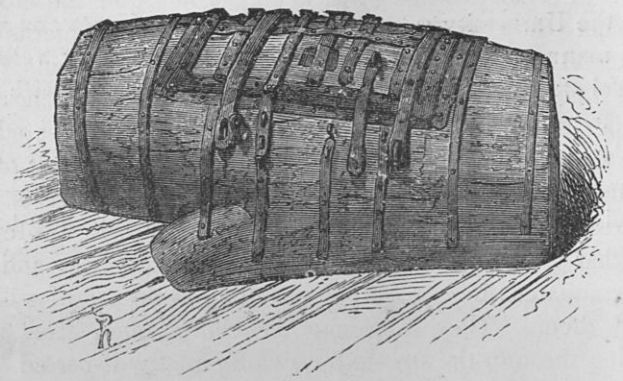


THE KINGS' MOUNDS NEAR OLD UPSALA.

of his two queens. Many Swedish heroes and great men are also interred there.

At a short distance from the town is *old* Upsala. Not far from its church are three large mounds, called *Kungshögar* (King heights). There is another one, called *Tingshög* (Ting height), where, in heathen times, kings harangued the multitude. The old church is but a short distance away, and it was

here that the great temple for the worship of Thor, Odin, and Freya was established in Scandinavia. A sacred wood covered the country, and human sacrifices were made to the gods. Two of the tumuli have been examined, and in one the bones of a woman, in an urn, and those of a small dog, were found.



OFFERING SHRINE IN OLD UPSALA CHURCH.

Large numbers of tumuli are scattered around this venerable place of pagan worship. Old Upsala church is one of the most ancient in Sweden. It is built of stone, and possesses a queer offering shrine, wherein the pious in Catholic times deposited their gifts.

The university town, on my arrival, presented a very animated appearance; the people were dressed in their holiday attire. This unusual commotion was on account of the ceremonies attendant upon the award of degrees to students who had passed a successful examination. Hundreds of graduates thronged the streets; they were easily recognized by the regulation white cap, with a black velvet band, decorated with a small blue-and-yellow rosette in the centre, symbolic of the Swedish flag. The sidewalks were crowded by young ladies, who had come for the occasion, and it was evident that many persons would be unable to find accommodation. I was told that this would probably be the last of the triennial exhibitions, for the authorities had objected to them, as being too expensive for the students.

In the afternoon the students assembled to greet the Chancellor of the University, who had just arrived from Stockholm; they sung in chorus with such magnificent voices that I did not wonder that those they had sent to the Paris Exhibition had won the first prize. An immense crowd, from all grades of society, followed them to the house of the chancellor, where they sang a superb student's song and chorus with wonderful precision and perfect accord. They pride themselves upon their singing, and take great pains in rehearsing together. The song being ended, the chancellor appeared and made a brief speech; after which the students, instead of dispersing, continued to sing, walking through the streets until they came to the residence of one of their favorite professors, who that year, I think, was Rector of the University, and who had graduated fifty years before. The same crowd still followed them. They sang another chorus, and, after again walking through the streets for awhile, finally dispersed.

The first and the two following nights there was hardly any sleep for me. There were in my hotel, fortunately or unfortunately, some young ladies — the sisters, cousins, or sweethearts of students — and I did not get a wink of sleep until three o'clock in the morning. Students, in groups of four to eight, came in succession, and sang their beautiful melodies under the windows, in compliment to the fair ones. One band had hardly left when another took its place, and fine voices rang out melodiously in the silence of the night. There was no peace for the Swedish beauties; each had to place a lighted candle in her window, to show that she was awake and heard the serenade given in her honor. This old and pretty custom seemed to be enjoyed by the students, and the girls evidently liked it. The following are two specimens of the songs I heard:

SERENADING DUET.

SKYMNINGEN (THE TWILIGHT).

Hear how still the wind whispers,
The stream murmurs,
The song of the thrush enchants!
See, a silver sky

Breaks the color
Between the mountains
Of the sun, that away will flee.
Purity radiates from the azure,
Love breathes from nature.
Song and love,
Song and love,
Go from heaven, go to earth.

SERENADING SONG.

THE ROSE IN THE NORTHERN FOREST.

Alone in the wild forest
A little flower stood;
Nodded with a friendly smile,
Whispered love and faith.
Far away there in the forest,
Flower, thou art dear to me,
Yea, thou art very dear to me.
Come to me, thou who took my heart;
Come to me, beautiful rose of the northern forest.

Stay not in those wild forests,
But come to thy faithful friend;
Tell me my hope was not deceived,
Tell me thou lovest me still.
Far away there in the forest,
Flower, thou art dear to me,
Yea, thou art very dear to me.
Come to me, thou who took my heart;
Come to me, beautiful rose of the northern forest.

The day after my arrival I witnessed the graduation ceremonies. At 9.30 A.M. the old graduates of the University met, and marched in procession to the cathedral. They had come from every part of the country to do honor to their alma mater; and among their number were governors of provinces, noblemen, officers in uniform, judges, lawyers, merchants, farmers, and white-headed men bent with age. Those who were not in uniform were arrayed in full evening dress, with high silk hats—for the Swede is precise, and even formal, on gala occasions. In deference to the custom of the place I had put on a dress-coat, but unfortunately I had no high hat with me, and therefore wore a Panama hat. When I joined the procession I felt quite uncomfortable; but it could not be

helped, and so, two by two, we marched to the cathedral, the dense crowd in the streets looking at us, and now and then, by voice or gesture, showing that they recognized some of the great men of the country in the ranks. The students, in dress-coats, followed the procession of their elders, and all entered the old brick pile which constitutes the cathedral of Upsala.

The large building was crowded to suffocation, almost entirely by ladies, who were tastefully but simply dressed according to Swedish custom; the variegated colors of their attire added to the interest of the scene. The body of the church was reserved for the students, all of whom wore their white caps. One of the student-ushers, whose badge was a red scarf, kindly took charge of me, and gave me a good seat. In front of the altar was a large body of collegians, all in evening dress, who were the musicians of the occasion. Near them was a brilliant cluster of young ladies, one of whom, a distinguished soloist, was a Norwegian. A platform, from which the degrees were to be given, was occupied by the Chancellor and Faculty of the University; while in front were venerable men who had graduated half a century before. All classes were mingled in the crowd: the *flicka*, with her handkerchief over her head, was there by the side of the grand dame.

The ceremonies began with a grand chorus by the young ladies, in which a few male voices blended; this lasted about half an hour. Then, after a short pause, the rector delivered a speech in Latin, occupying about twenty-five minutes, but receiving little attention; this was a part of the programme required by custom. At the conclusion of the address he placed upon his own head a crown of oak leaves. This seemed to be the signal for a peal of four guns, the echoes of which reverberated among the arches of the old cathedral. Then the grand chorus again burst forth in a superb strain, singing a song composed by one of the students. As the name of each graduate was called, and the crown of laurel was placed upon his head, the booming of a cannon was heard; he then received his diploma. After this ceremony there was more sing-

ing, and then two of the graduates, *Primus* and *Secundus*, ascended the platform and delivered the valedictory in Latin.

As I looked at the crowd around me, I thought I could recognize, by their beaming faces, the fathers, mothers, sisters, and sweethearts of the scholars who had passed the ordeal. Some of the young men had just been married, and others were about to be. Years of study had been rewarded on this day, and the graduates, who were the heroes of the hour, walked through the streets with their crowns on their heads. Their joyful student-life was over; the time for parting had come; but their dear Upsala and alma mater were never to be forgotten. The alumni had come from every part of Sweden, and their white caps would soon be seen in the far North, among the mountains of Lapland, in Swedish Finland, and in every province of the kingdom.

At three o'clock precisely on that day I found myself in the Linnæan Hall, with 304 other guests, eating the smörgås to gain an appetite for dinner. When the doors leading to the banqueting hall were opened, the abundance of plants gave the apartment almost the appearance of a garden; the effect was very striking. The chancellor presided at the feast, and the bill of fare was as follows:

Grön soppa (green soup), a sort of Julienne.
Cabarrus St. Julien, etc.
Pale Sherry.
Mayonnaise på lax (Mayonnaise de Salmon).
Haut Sauterne.
Späckad Ox filet (larded fillet of Beef).
Frikasserad Tunga (Fricasseed Tongue).
Porter.
Färsk Sparris (fresh Asparagus).
Hockheimer and Selters.*
Kyckling med Salad (Spring Chicken with Salad).
Cabinet Cremant (Champagne Wine).
Glace och Krokan (Ice Cream and Pyramidal Cake).
Port Wine (Old Superior).
Pale Sherry.
Dessert and Moet-Chandon.

* The Swedes like to drink Seltzer water after the asparagus.

The dishes were well cooked, and the attendance was excellent—both of which surprised me, on account of the great number of guests. As the dinner advanced the more lively the company became, and there was a continual drinking of toasts between friends at dessert; the health of the king was proposed and drank, but without any speech-making, and several other toasts were duly honored. Then came a general moving to and fro, for the wine had made every heart merry. From the porch we looked into the Botanic Garden, where several thousand persons had gathered in a beautiful avenue facing the building. The assembly was composed of ladies, pupils, and the populace. Singing was demanded, and the students struck up the grand chorus:

STUDENT'S SONG.

(SWEDISH.)

Sing the student's happy days,
Let us enjoy the spring of youth;
Still the heart beats with healthy throbs,
And the dawning future is ours.

No storms do yet
Dwell on our minds;
Hope is our friend,
And we its promises trust
When alliance we form
In the grove,
Where the glorious laurels grow,
Where the glorious laurels grow—hurrah!

Coffee was then served, and immense bowls of Swedish punch were provided for the whole orderly body, *ad libitum*. The Archbishop of Upsala, the Chancellor, and the Rector of the University were put by force on chairs and carried through the throng on the shoulders of the students, amidst cheers and general merriment. The old became young again: there were no distinctions of rank; professors and students walked about arm-in-arm. I lost my friends in the crowd, and stood astonished at the scene of tumultuous joy: evidently the punch was beginning to tell. Close to me, in the great throng, was a gentleman dressed in full uniform, who inquired in an exceedingly

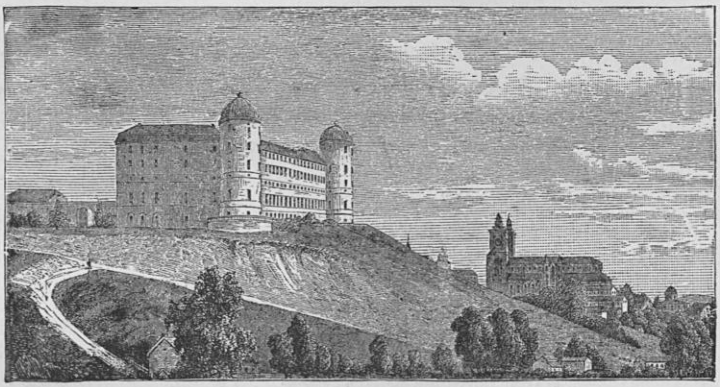
pleasant manner, and in perfect English, if my name was Du Chaillu, and then introduced himself as Count Hamilton, Governor of the Län of Upsala. He invited me to visit him the next day at his residence in the *slott*, or ancient palace.

The festivities of the day ended with a grand ball (*Promotionsbalen*) in one of the halls of the Carolina Rediviva, which contains the superb library of the University. I was surprised at the selection of the place, for it seemed a reckless act to expose that fine collection to such a risk. More than two thousand wax candles were burning, and the hall was tastefully arranged, with a little fountain at one end of the room sending up jets of water and helping to cool the atmosphere of the overcrowded hall. Everybody was in evening dress, and the young ladies mustered in full force from every part of the country; Swedish beauties were there, as numerous as violets in the grass. I admired the simplicity of their attire; white muslin dresses, trimmed with ribbons of different colors, predominated, and the hair was arranged simply but tastefully. The hall was so crowded that those who desired to dance could hardly find room. Many applications for admission had been refused for want of accommodation. I met one American to whom I was not a stranger; he had been a student at the University of Michigan, in Ann Arbor, when I lectured there. His journey to Sweden had been undertaken for the purpose of studying the history of the country.

The following day I went to the old castle, where I was received with great kindness by the governor, the countess, and all the members of their family, and found a company of distinguished guests, who had come to attend the graduation ceremonies. Every one spoke English; the governor, the countess, and their eldest daughter speaking it exceedingly well; in fact, nearly all present had a good command of the English, French, and German languages. In a short time I felt at home, as is always the case where tact, culture, and pleasant manners lend their charms. When the time for leaving came, I reluctantly bade farewell to those who had received me so kindly.

The Swedish branch of the house of Hamilton, represented

by the Governor of Upsala, is descended from Claudius, Baron of Paisley, one of the sons of James, fourth Duke of Chatelherault. The sons of Malcolm, Archbishop of Cassel, entered the Swedish army under Gustavus Adolphus in 1624, and distinguished themselves greatly, and were allowed by the sovereign, as a recognition of their services, to take the baronial title of their grandfathers in Scotland. They are highly honored and respected in Sweden. The Countess of Hamilton is the daughter of the illustrious Swedish historian, Geijer.



UPSALA SLOTT (CASTLE).

A part only of the old castle is occupied by the governor. It presents a very imposing appearance, and commands an extensive view. Some of the walls of this enormous brick structure are twelve feet in thickness. Scenes of centuries gone by come vividly before the student of history when he visits the pile. The murder of Nils Sture and others, by the crazy and blood-thirsty Erik, marking an era of bloodshed and murder in Sweden, is one of these historical memories.

The students' concert was given the next day. The ball-room had been transformed in a few hours into a concert-room, and the same students who were the ushers at the ball were again on duty. They certainly tried to do all they could to entertain those who came to Upsala. As at the ball, the room was far too small to accommodate all who wished to hear, for the finest voices of the University had been chosen

for this occasion. The audience was almost entirely composed of ladies, the gentlemen having given way, so that there would be more room, for this was the crowning entertainment of the festival. The first piece on the programme was the song, "Hör oss, Svea" (Hear us, Sweden), which was followed by "The Solvirkning" (The Sun's Effects), by Kjerulf, and "The Brudefærd i Hardanger" (The Bridal Journey by Hardanger), both Norwegian songs. The audience was apparently cold; but the last-named piece was received with enthusiastic applause.

STUDENTS' MARCH.

(SWEDISH.)

Hear us, Svea,* mother of us all;
Bid us battle for thy welfare, and fall!
Never, never, shall we thee forsake:
Take our oath, the same in all our fates!
With life and blood shalt thou be defended,
The free land which still is ours—
Every part of the inheritance
Thou gav'st in saga and in song.
And if by deceit, treason,
Discord, and violence thou threatened be,
Yet will we believe in the Lord's name,
As our ancestors believed once:
"Our God is a powerful fort,
He is our armor tried;
On him, in all our sorrows and wants,
Our hope we will build."
Glorious, glorious will it be—
Victorious in the battle stand—
Far more glorious if we, however,
For thee, oh mother, do fall!

THE SUN'S EFFECTS (*Solvirkning*).

(NORWEGIAN.)

'Way in the mountains, under the pine-clad slopes,
There is an open vista;
There winds the sæter path,
There tumbles the foaming stream in cascades!
The shimmering air is bluish-white—
It is the midsummer's sun, and mid-day time;

* Svea, Sweden.

The glittering beams are playing
On the river, under its dark shores,
And the fog's dim spray rises quietly
Where the foss hastens down to the deep.
There the river wanders its hidden way,
The blazing midsummer sun it knows not;

But the slope under the mountain
Is wrapped in a golden flood of light!
See the spruce on the mountain's top,
With shining cones and shaded base:
By the path trembles with silver glitter
The blooming heath, the moss-clad precipice.

BRIDAL JOURNEY BY HARDANGER.

There's breathing a sparkling summer air
Warm over Hardanger fjord's waters:
How high towards heaven, in bluish tint,
The mighty mountains range!
It shines from the glacier, it's green on the hills—
In its holiday garb has nature dressed itself.
See there! Over green clear waves
Homeward glides a bridal train.

Like an old-time king's daughter so proud,
With golden collar on, and scarlet,
In the stem sits the splendid bride,
So fair as the fjord and the day.
Happy the bridegroom swings his hat:
Now he brings home his dearest treasure,
And sees in the eyes mild
His life as a bridal feast.

All murmur the enchanting cadences
Of tunes and melodies over the waves;
From mountain to mountain rolls the report of the gun,
And shouts of joy answer from the forest.
With the maids of the bride there is joking;
And the kitchen-master has not forgotten
To fill, incessantly, the jug,
To the honor of the bridal house.

So they go forth, playing in joyful strain,
'Way over the shimmering surface,
And boat after boat joins the throng
With wedding-guests so joyful.

The light is blue on the cliffs, it shines bright from the glacier;
The scent from the blooming apple-tree is fragrant:
Venerable stands the church on the point,
And blesses with chiming of its bells.

A dinner at the castle ended the festivities of my pleasant visit. Many of the English and American authors had been read by the guests, and the conversation was of America, England, Sweden, Europe, and of writers, thinkers, scientific men, travel and travellers, and other topics. After this we went out to the terrace, and had a magnificent view of the plain below, fresh and green with the tints of spring, with wild-flowers in bloom. Immortelles were abundant, and many were gathered and made into a wreath by the two young ladies of the house, and they crowned me with it in the presence of the company—an unexpected and undeserved compliment. The youngest daughter, a charming and modest young girl of thirteen, with fair hair, blue eyes, and a delicate complexion, gave me a little bouquet of forget-me-nots and immortelles, which I immediately placed in my button-hole, to the intense delight of her childlike nature. I have kept the wreath and the flowers as mementos of a delightful visit, and sometimes I wonder if that pleasant family still remembers me.

CHAPTER XXIX.

The Stone, Bronze, and Iron Age of Scandinavia.—Climate of the earlier Stone Age.—Extinction of the Great Mammals after the earlier Stone Age.—The Kjökkenmöddinger, or Shell Heaps.—The Builders of the Stone Age Graves.—Rude Implements.—Pottery.—Four different Groups of Graves.—Stone-heap Graves.—Passage Graves.—Stone Coffins.—The Bronze Age.—Strange Rock Tracing.—Graves with Burned and Unburned Bones.—Bronze and Gold Implements or Ornaments.—Pottery of the Bronze Age.—Rock Tracing, with Horses and Cattle.—End of the Bronze Age.

For the better understanding of the contents of this chapter on the prehistoric races of Scandinavia, it may be well, in the first place, to give the usually accepted classification of the "ages" of primitive man. None of these prehistoric ages are sharply defined, but run by degrees into each other. This classification specifies not divisions of time but degrees of development, indicated by the materials used for domestic and warlike implements by man before the historic period. There are three—the *stone*, *bronze*, and *iron* ages; the first being the earliest, and the last gradually merging into the historic period.

1. During the *earlier stone age* the climate was colder than now; then man in Europe co-existed with the mammoth, rhinoceros, hippopotamus, musk-ox, and other large and small mammals. The implements used were of *rough* stone, and pottery and metals were unknown. The people dwelt in caves, living principally on the flesh of reindeer, which were then found in Central and Southern Europe; hence they were called "cave men," and the time the "reindeer period."

In the *later stone age* the great mammals had become extinct. Metals were as yet unknown; but hand-made pottery was used. To this age belong the Scandinavian refuse-heaps (*kjökkenmöddinger*), some of the Swiss lake dwellings, and most of the burial mounds described in this chapter. Rough

stone implements continued to be used, as, in fact, they did through the subsequent ages, but most were *polished.*

2. The *bronze age* is characterized by the use of that metal, and of gold, amber, and glass for ornaments. The pottery was better made, with geometrical markings. Stone continued to be used for arrow-heads, spear-points, and knives. The characters of the tumuli and their contents are described beyond.

3. Of the *iron age* it will be sufficient to say here that the use of the ordinary metals was known, and that civilization had advanced from the savage and nomadic state to that of agricultural communities, with fixed habitations, laws, and government, and that then was ushered in the historic age, which was semi-barbarous at best, judging by modern standards.

The two most essentially heterogeneous races now inhabiting the Scandinavian peninsula belong to the straight-jawed division; but the Lapps are brachycephalic, while the others are dolichocephalic. The greatest number of skulls found in graves of the stone age are dolichocephalic, but a good many are brachycephalic, or similar to those of the Lapps — thus showing that two different races must have inhabited the country during this period. Generally the dolichocephalic skulls are even more elongated than those of the present people. To which of these types those of the earlier stone age in Scandinavia belonged can only be conjectured, as no graves of that period are as yet known in the country. It is, indeed, highly doubtful if it had any inhabitants during this remote age; at any rate this has not been proved with any degree of certainty.

After the geological separation of Scandinavia from Northern Germany by an intervening ocean, as explained in the chapter on "Geology," there were no reindeer in Sweden; the kjökkenmöddinger do not contain their bones, though these occur in the peat bogs of Denmark and Sweden, as migration from the south was no longer possible. The ure-ox lived there then, and even in the succeeding age.

The builders of the stone-age graves were a strong people, acquainted with the use of fire, having domestic cattle, and, to some extent, were agriculturists.

Among the oldest traces of man in Scandinavia, as we have said before, are the kjökkenmöddinger, or piles of kitchen refuse — like the modern dust-heaps, containing all kinds of household rubbish — from which we can form an idea of the habits of life among these people. These heaps consist of oyster and mussel shells, bones of fish, birds, and mammals, such as the deer, hog, beaver, seal, ure-ox, bear, fox, wolf, lynx, marten, etc., with remains of clay vessels. That, however, certain parts of Sweden were inhabited at the time of the Danish shell heaps, is shown by the fact that flint implements of the same shape as those of the kjökkenmöddinger have been found in Skåne.

These heaps prove that the inhabitants of the North, in prehistoric times, and perhaps only three thousand years ago, lived in a most primitive state. Among and near these are found great numbers of rude implements and tools made of flint,

CLAY VESSEL FROM THE STONE AGE, FOUND IN A GRAVE IN SKÅNE. THREE-EIGHTHS ITS REAL SIZE.

COARSE CLAY VESSEL, FOUND IN A STONE COFFIN GRAVE IN VESTERGÖTLAND. THREE-EIGHTHS ITS REAL SIZE.

bone, horn, and of broken flint chips; also fireplaces made of a few stones put roughly together—one of the oldest examples of man's ingenuity—showing that the people at that period were exclusively hunters and fishermen. Large numbers of these stone implements are found in the museums of Sweden and Norway. The refuse heaps on the peninsula of Scandi-

navia, though very ancient, are of a later date than those found in Denmark.

It is only necessary to compare the rude flint implements of the earlier stone age in Skåne with the fine ones from a later period, to see what progress man had made before the discovery of the use of metals. Of utensils there have been found only the clay vessels before mentioned, one of which had been taken from a grave in Skåne; the other is a clay vessel from a grave mound at Herrljunga, in Vestergötland. The tools found in the refuse heaps are the coarsest, and the progress to more finished ones has naturally been slow.

THREE-EDGED ARROW-POINT OF FLINT. TWO-THIRDS ITS REAL SIZE.

In the latter part of the stone age domestic animals had been introduced, as shown by the bones of cattle, horses, sheep, pigs, and dogs found in the graves. No matter how low a people are, they wear ornaments of some sort, and, accordingly, in the stone age beads of bone and amber were worn, as found in graves in Vestergötland.

ARROW-POINT OF BONE, WITH TWO ROWS OF FLINT SPLINTERS MORTISED INTO IT. ONE-HALF ITS REAL SIZE.

No graves of the earlier stone age have been discovered on the peninsula of Scandinavia, but a great many exist belonging to the later period of that epoch. These graves may be classified in four groups: Stone-heap graves (*stendösar*); passage, or gallery graves (*gånggrifter*); free-standing stone coffins (*hällkistor*); and stone coffins covered by a mound of earth or stones, showing a considerable advance during the latter part of the stone age. The stendös graves are the oldest, and the coffins covered with mounds the latest, and show the transition to the bronze age.

The study of these graves is one of intense interest, and I never could stand before them without a feeling akin to rever-

ence, for they embodied the vanity of human life: man comes, goes, and is forgotten; the tomb that is revered to-day by a whole people is desecrated by those who follow them in the wake of time.

The stendösar, cromlechs, or dolmens that have been found, consist of from three to five stones, raised in the shape of a ring, with a large block on the top. These were intended for a single body, buried in a sitting position, accompanied by flint implements and weapons; the walls of the chamber are formed by large thick stones, standing upright, reaching from floor to roof—on the inside smooth, but on the outside rough; the floor consists of sand, gravel, and the like; the roof is formed by one, sometimes by several large blocks of stone, which also are smooth on the inside, but otherwise irregular. The form of the chamber is square, pentagonal, oval, or nearly round; its length varies between 8 and 15 feet; width, 5 to 7 feet; and height, 3 to 5½ feet.

FLINT TOOL FROM THE OLDER STONE AGE, SKÅNE. THREE-QUARTERS ITS REAL SIZE.

Most of them lie in or on top of a mound which almost always leaves the roof, and in most cases part of the walls, uncovered. The mound, which is generally round, sometimes oblong in Sweden, is surrounded at its base by stones, often very large. When this is oblong, the stone grave lies nearer to one end than the other: occasionally two graves are found in such an oblong shape.

The stone grave shown on page 337 is near Haga, in Bohuslän; the chamber, nearly square, is surrounded by five wall stones; its length on the floor is 7 feet, width and height nearly 6½ feet; the greatest length of the roof-stone is 10 feet. When pressed hard in one place by its border, the big stone is made to have a rocking motion, which gives rise to a hollow, muf-

fied sound. Such a position has been observed at various stone graves in the North, and in other countries.

Gallery graves (*gånggrifter*), described and figured here (they have all been built by dolichocephalic races), were probably for the families of the chiefs, and intended to last for generations; they therefore do not belong to the savage period, though of the stone age. No traces of the dwellings of this period have been discovered, as they were probably more or less underground, constructed of small stones, which would fall in, or of earth, which would in time disappear. These graves consist of a chamber, and a narrow gallery leading into the same; the whole is covered by a mound, the base of which is generally surrounded by a circle of larger or smaller stones. The illustration on page 338 gives an idea of these graves, which are sometimes very large.

FLINT PONIARD, SMALAND. ONE-HALF ITS REAL SIZE.

The chamber in a passage grave is either oblong, square, oval, or nearly round; the walls resemble those of the cromlechs, and are formed by large upright blocks, not quite smooth, though even, on the inside; the interstices are generally carefully filled in with stone fragments, gravel, and the like; sometimes birch bark is found between the blocks. The roof is formed by immense flat slabs or blocks, smooth on the underside but rough on the top; the interstices between these are closed in the same manner as those in the walls. The floor is sometimes covered with small flat stones, but is usually of earth.

On the long side of the chamber—the eastern or southern—there is an opening from which a passage is built in the same manner as the chamber, only longer and narrower. This passage, at least its inner part, is covered with blocks resembling

the roof blocks of the chamber, but smaller. Near the inner opening of the passage and the outer end of its covered part is quite often found a kind of door-setting, consisting of a threshold stone and two narrow door-posts.

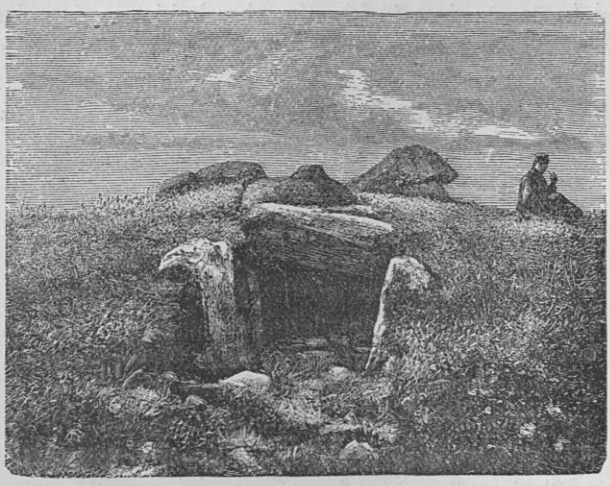
A passage grave near Karleby church and Falköping was opened in 1872; just inside the threshold was found a flat nearly rectangular limestone slab, of the same width as the outer door opening, which had probably served as a door, although it had fallen down. The Swedish passage graves vary much in size. The length of the chamber is from 11½ to 23

CROMLECH NEAR HAGA, BOHUSLÄN.

feet, its width 5 to 10 feet, and height 3½ to 4½ feet. The passage is often as long as the chamber, frequently longer; its width 2 to 4 feet, and height 3 to 5 feet. Some in the neighborhood of Falköping, where most graves of the stone age are found, are much larger, the chambers being from 30 to 40 feet in length. The largest passage grave in Sweden is one near Karleby church. The chamber, which is covered by nine large granite blocks, is 52½ feet in length, width 7 feet, length of passage 40 feet.

The isolated *stone coffins* are formed of flat upright stones, and are four-sided, though the two longer sides are not

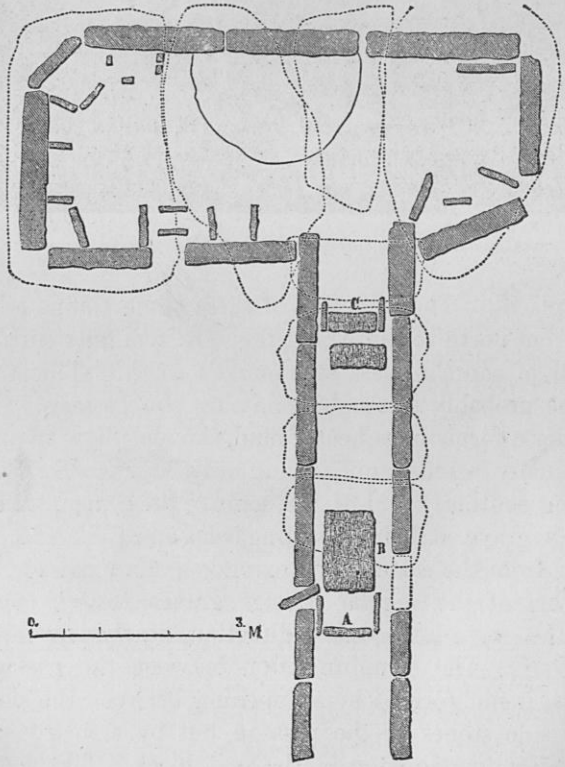
parallel, thus making the coffin narrower at one end than at the other. Most of them have probably been covered with one or more stones, although these, in many places, have long ago been destroyed or removed; sometimes they are still found



PASSAGE GRAVE (GÅNGGRIFT) NEAR KARLEBY, IN VESTERGÖTLAND.

in their places. The direction of these stone coffins is almost always from north to south, and they are generally surrounded by a hill of more or less stone-mixed earth. This form of grave has probably arisen by omitting the passage. Several intermediate forms have been found, showing how the passage was gradually lessened, until it can only be traced in the open narrowing southerly end of the coffin. Such an intermediate form is a grave at Våmb Nedregården, near Sköfde, Vestergötland; from the eastern side extends a short passage, which, unlike that of the regular passage graves, runs in continuation of the grave in the same direction, nearly as wide as the grave itself. The communication between the passage and the grave is not formed by an opening between the door-slab and the side stones of the passage, but by a nearly circular hole, 1½ feet in diameter, in the end block. The length of the coffin, excepting the passage, is 13½ feet. In this grave

SIDE VIEW OF PASSAGE GRAVE NEAR KARLEBY.



GROUND-PLAN OF PASSAGE GRAVE.

The irregular lines show the position of the slabs covering the grave.

were found, in 1859, several skeletons, five poniards and spear-points of flint, two flint arrows, two whetstones of slate, and a bone needle.

The length of the stone coffin is generally from 8 to 13½ feet, width 35 to 60 inches, and height or depth 2½ to 5 feet. A few, especially in Vestergötland, are from 19½ to 31 feet in length. The longest known grave of this kind in Sweden is one lying on Stora Lundskullen, in Vestergötland. Its length is 34 feet, and width 8 feet. A spacious grave of this form is shown in the engraving, which, like many others with stone coffins, was by the people called the "giant house:" it lies far in the woods at Skattened, in Vestergötland, near Veners-

STONE COFFIN (HÄLLKISTA) NEAR SKATTENED, IN SÖDRA EYRS PARISH, VESTERGÖTLAND, 21¼ FEET IN LENGTH.

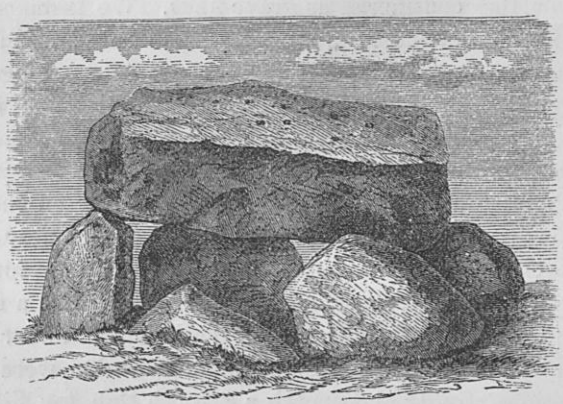
borg. This sepulchre, which runs from north-east to south-west, is 21¼ feet long on the eastern side, which is somewhat curved, and 20½ feet on the western, which is nearly straight. The width is 7½ feet at the north-eastern end, which consists

of one flat stone, and 5 feet at the south-western, which is open, and opposite which the coffin grows narrower. The height of the stones is from 5 to 6 feet; they all stand close together, and are skilfully arranged, so that each one, without disturbing the evenness, laps a little over the preceding one, thus supporting it. Of the cover-stones, which probably have been five or six, only two are left, with a piece of a third; all now have fallen into the grave. At the south-western end lies a stone which probably belonged to the roof, or served as a door. The bottom of the coffin seems to be sunk about two feet below the surface of the ground, and on three sides is surrounded by a stone heap, over which the walls rise only a few inches.

Nearly all other stone coffins, like the gallery graves, are without a stone at the southern end. This cannot be accidental, and is a point of some importance, as this opening at the end probably may be considered as a continuation of the entrance to the passage graves, which also pointed towards the south. Another fact, which supports the opinion that the stone coffins were open at the southern end, is that many become lower and narrower towards that end. An additional reminder of the entrance of the passage grave is the opening sometimes found about midway on the eastern length of the stone coffin. In 1875 a coffin at Herrljunga, in Vestergötland, was examined, and such an opening, 8 feet in width, was found, the length of the grave being not less than 30 feet.

Sometimes the isolated stone coffins are not entirely open at the southern end, but have simply an opening (rounded above) in the stone at this end, 2½ feet in height and 16 inches in width. Besides the stone coffins above described, there have been found several entirely covered with earth or stones, which evidently belong to the stone age. They are generally formed of upright flat stones, and covered with others, in the same manner as the before-described stone coffins; but they are usually smaller, from 6 to 10 feet long, and closed on all four sides. Sometimes, however, there is found in the southern end such an opening as is mentioned above. One of the most remarkable of this kind is that near the passage graves

at Karleby, close to Falköping, which was explored in 1874. Under a large but not very deep stone mound was found a grave made from limestone flats, divided into a large chamber and two smaller ones outside; the roof had also been made of similar stones, and even with the surrounding ground. In the partition stone, between the grave proper and the inner room, was found a rounded opening, 2 feet in width; the outside of this opening was closed by a kind of door, consisting of a smaller flat slab, kept in place by round stones. In the partition between the inner and outer ante-chambers was also



CROMLECH (STENDÖS) WITH CONCAVE RECESSES ON THE ROOF-STONE, NEAR FASMORUP, IN SKÅNE.

an opening 2½ feet in width, which, however, was in the upper end, and was closed by a larger flat. The length of the larger chamber in the centre was 13 feet, its width 6¾ feet, and height 6 feet. In it were found more than sixty skeletons, and by their sides a large number of poniards, spear-points, arrow-heads, and other works of flint, showing that the grave belonged to a period when stone implements were still used. It was, therefore, of much importance to find among the skeletons in the lower part of the grave a couple of bronze beads and a spear-point of the same metal, showing that the bronze age had commenced in Vestergötland at the time the grave was in use. This is not the only case in which both stone and bronze implements, probably belonging to the earlier bronze age, have been found in these graves.

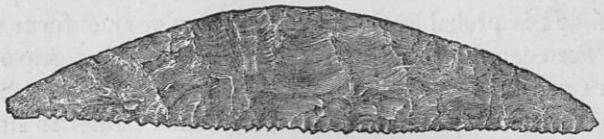
Certain marks on the top stone seem to indicate that sacrifices to the dead were prevalent; holes about two inches in width are found on the roofs of some cromlechs and passage graves. It is probable that sacrifices, under one form or another, were common during the stone age. Such a grave, with recesses on the roof-stone, is found near Fasmorup, in Skåne, and is shown on page 341. Another such grave is situated near Tanum church, in Bohuslän.

Stone implements have often been found, which, doubtless, were carefully buried with a purpose, although they cannot be considered as grave-finds. We instance a few of these: Near Ryssvik, in Southern Småland, were discovered, in 1821, fifteen large, well-polished axes, placed in a semicircle; in 1863 a similar though smaller find was made near Bro, in Nerike, where five large well-polished axes were found lying in a row on the shore of the partly dried lake Mosjön; near Knem, in Tanum parish, Bohuslän, were found, in 1843, seven saws, a spear-point, and a scraper, all of flint, beside each other under a flat stone; near Skarstad, in Bohuslän, were found, in 1843, beneath a smooth slab, ten flint saws of the same shape; also, in Skee parish, in Bohuslän, some years ago, ten similar saws, wrapped in birch-bark, were unearthed. Similar finds have been made in peat-bogs. Thus, in 1863 were discovered in a bog near Halmstad twenty of these saws buried close together.

FLINT AXE, WITH MARKS FROM THE HANDLE—SKÅNE. ONE-SIXTH ITS REAL SIZE.

The province of Vestergötland is the richest in relics from the stone age. Next in richness are Skåne, Bleking, Halland, Bohuslän, Dalsland, and the south-western part of Vermland. On the plain around Fahlköping are still found, in spite of centuries of cultivation, a larger number of graves of the stone age than anywhere else; rich in reminiscences of this era are also certain parts of Småland, especially the western districts and that part of the

interior around the large lakes and waters which, through the rivers of Blekinge and Halland, are connected with the sea.



SAW OF FLINT—BOHUSLÄN. THREE-EIGHTHS ITS REAL SIZE.

It seems the more remarkable, therefore, that not a single grave of the stone age has been found on the east coast, and also that the scattered relics of this period, so numerous in the western coast districts, are very seldom found in the eastern, north of Kalmarsund; and that both graves and antiquities of this age are very rare in Gotland and Öland, which are so rich in relics of the later periods of the heathen time. It is worth special mention that the different antiquities and grave-forms are not uniformly distributed over that part of Sweden which was inhabited during the stone age. The implements typical of the oldest stone age hitherto known in Sweden have nearly all been obtained in Skåne; and in this province have also been found a comparatively large number of flint axes, belonging to the more recent stone age, which in the country north of Skåne are more rare.

UNPOLISHED FLINT AXE (OLDER SHAPE). ONE-SIXTH ITS REAL SIZE.

All this seems to show that Skåne was not only the most thickly, but one of the earliest inhabited parts of the peninsula. Still more remarkable is the distribution of the different forms of graves. These, as already mentioned, are: (1) Stendösar cromlechs; (2) Passage graves; (3) Free-standing stone coffins; and (4) Stone coffins covered with mounds of stone or earth; which latter belong to the end of the stone age, and were also

in use during the first period of the bronze age. Now it happens that cromlechs are found only in Skåne, Halland, and Bohuslän, and on the island of Öland, where, however, thus far only four have been discovered, and these very close together. With the exception of this solitary group, the cromlech—the oldest form of grave now known—is seen only in Skåne and on the west coast; the most northerly one in Sweden lies near Masselberg, Bohuslän: in Norway only one is known, not far from the boundary of Bohuslän.

The graves next in age, the passage graves, are very numerous in Skåne, but especially in Skaraborgslän of Vestergötland; a few also are found in Bohuslän. Of the 140 passage graves at present known in Sweden, more than 110 are in Skaraborgslän, and most of them near Falköping. From the part of Vestergötland belonging to Elfsborgslän only two graves with plain passages occur, and they differ considerably from the passage graves proper. The stone tombs, which seem to be the latest graves of the stone age, have a much wider distribution than the older forms. Free-standing ones of the latter (*hällkistor*) are very numerous in Vestergötland, especially in Elfsborgslän, in Bohuslän, Dal, and South-western Vermland. The mound-covered sepulchres belonging to the stone age are found in nearly all provinces where the older forms of graves occur; they also occur in Blekinge, Småland, South-western Östergötland, and on the island of Gotland—in other words, in those neighborhoods where the other forms have not been found. The cromlechs (stendösar), it must be remarked, always occur near the sea, seldom more than seven miles from the coast. The other graves of the stone age are, as before mentioned, often found far inland; but they almost always are near a lake or river having connection with the sea, and which still are, or have been, important.

All this proves decidedly that Skåne and the west coast were first occupied by the original inhabitants; that the population afterwards gradually spread towards the north and north-east, and entered into the interior by following the rivers and the shores of the large lakes, or the coast of the Baltic; and that

the eastern parts of the country—Småland and Östergötland—as well as Gotland, were the first, towards the end of the stone age, in having any population worth mentioning. Of how little importance the population of the eastern was in comparison with that of the western provinces is well shown in Södermanland, where the relics of the stone age are much more rare in that part lying near the Baltic than in the south-western part, in the neighborhood of Wingåker. The explanation may be found in the fact that one branch of the population went from the important settlements in the northern part of Vestergötland, over Nerike, into Western Södermanland. It is also evident from the preceding facts that the people who left behind them these antiquities must have come from the south, or rather south-west—that is, from Denmark. This migration from the south-west is the more remarkable, as that from the south-east and the regions to the eastward, during the following periods and up to the later centuries, has been of so much more importance to the country. When it is remembered what important parts Öland and Gotland played during the iron age, it merits special attention that the relics from the stone age are so rare on these islands.

Besides the already mentioned antiquities from the stone age, which have been found only in the southern and middle parts of Sweden, in the northern parts are to be seen several antiquities of polished stone—generally slate—which themselves show that they do not belong to the South Scandinavian stone age, nor to the people who built cromlechs and passage graves. These antiquities, called "arctic," have been found mostly in Norrland and Lapland, where stone articles of South Scandinavian types are very rare. That the last named belonged to a different people from the arctic ones is shown by the fact that the two kinds have never been found together; that the arctic antiquities show great similarity to those found in Finland; and that Lapps, Finns, and kindred people inhabited northern countries, where stone implements of the same shapes and material as those of South Scandinavia are almost unknown.

In a few instances the spear-points and knives of slate pe-

culiar to the arctic stone age have been found in Svealand,* south of Dalarne, and in Götaland, and it is at present difficult to explain this fact, unless by the supposition that the Lapps once dwelt, though in small numbers, south of Dalelfven, or that the slate implements were in use by the South Scandinavian stone age people, who got them from their northern neighbors. As it therefore seems probable that in the peninsula have been found remains of two different peoples, who dwelt here in their stone age, it becomes a question of importance in what relation as to time the arctic stone age stands to the South Scandinavian. Did the former begin earlier or later than the latter? †

During the latter part of the stone age in Scandinavia considerable progress had been made in agriculture and cattle-raising, though hunting and fishing were still very important occupations.

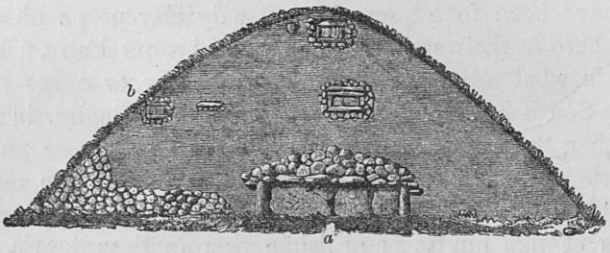
The knowledge of bronze-working among the people of the peninsula came, no doubt, from the south and south-east.

The engraving on page 347 shows a section of a large grave near Dömmestorp, in Southern Halland, belonging to the bronze age, which a few years ago was very carefully examined. In the middle of the bottom of the mound, at *a*, was built a large stone coffin, 6¾ feet in length, containing human remains, which had not been cremated. In three other places, higher up in the same mound, and near the edge, were found three smaller stone coffins, only 1 to 2 feet in length, filled with burned bones. In one place, near the coffin in the top of the mound, a clay pot with burned bones had been deposited, and at the coffin *b* was a flat stone, covering a hole, which also contained burned bones. The large coffin, and the one in the

* In Svealand, below Dalarne, more than 2300 Scandinavian stone implements have been found, but only twelve spear-points and knives of slate; while in the southern part, where more than 44,000 antiquities of stone have been collected, only five spear-points of slate are known.

† There can be no doubt that the stone age in Scandinavia embraced a long period of time; this is shown by the large number of graves, implements, tools, etc., found there, indicating also the gradual improvement of the people. This age, however, merged imperceptibly into the bronze age; for, even after the knowledge of metal had been acquired, implements of stone were used for a considerable period.

top of the mound, and one of the two other small coffins, contained, besides the bones, antiquities from the bronze age; and there is no doubt that the other three also belong to the same period. It is evident that the large coffin with the unburned bones in the bottom of the mound must be older than the others, as the large one could not have been built without disturbing the smaller.

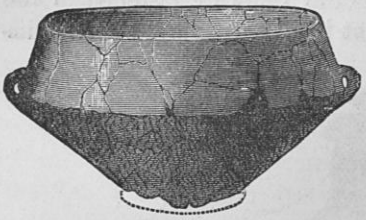


PROFILE OF A GRAVE MOUND NEAR DÖMMESTORP, IN SOUTHERN HALLAND.

Nearly every mound of the bronze age, in which a grave with unburned bones has been found, has also contained graves with burned bones; but the former has always been nearer the bottom than the latter. It follows, therefore, that graves of the bronze age with unburned remains must be considered older than the graves with burned bones. It may be added, in confirmation of this, that several graves with unburned bones, considered as belonging to the early period of the bronze age, are very similar to those belonging to the next preceding period of the stone age, and that those of the end of the bronze age have developed out of those belonging to its beginning; hence it may be said that the form of the Swedish graves runs in an unbroken chain of development, the beginning of which is the large grave-chamber of the stone age, and the end the insignificant preserving places for handfuls of burned bones. The oldest known graves of the bronze age in Scandinavia are stone coffins enclosing several skeletons; these finally decrease in size, until they become only about $6\frac{3}{4}$ feet long, or just large enough to contain one body. These stone coffins, of the length of an average man, are interesting, as indicating the transition to the small ones containing burned bones; some of these, of a size calculated

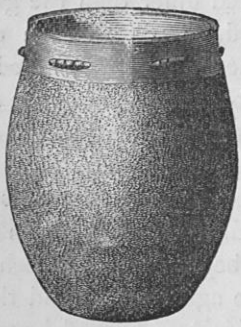
for an unburned body, have contained only a small heap of burned bones, and evidently belonged to the period when the cremation of the dead began to prevail.

Many of these little stone coffins are only large enough to enclose a clay pot, in which the bones were collected. Sometimes no coffins were found, but only clay pots with ashes, a small bronze knife, a bit of a bronze saw, or something of that kind. Finally, in some cases the bones were put singly in a hole in the mound, and the whole covered with a stone slab. From traces in graves of this age it is probable that in Scandinavia serfs were sometimes buried with their masters. Of furniture and utensils nothing has been preserved except vessels of burned clay, bronze and gold, and here and there some of wood, which of course were very common, but have rarely withstood the ravages of time. The clay vessels are of many



CLAY VESSEL—HALLAND. ONE-EIGHTH ITS REAL SIZE.

CLAY VESSEL—HALLAND. ONE-FOURTH ITS REAL SIZE.



CLAY VESSEL—SKÅNE. ONE-EIGHTH ITS REAL SIZE.

different forms, but often inferior to those of the stone age in ornamentation and purity of the material used.

In two graves, which certainly belong to the period in question, round boxes of thin wood with covers, nearly like those

still in use, have been found. Most of the bronze vessels have the form herewith shown, and are not unfrequently found, together with a kind of cover of bronze, either provided with two handles like the utensil, or with wheel-formed buttons, to which the straps joining vessel and cover were fastened. The latter is always so much smaller that it apparently has not

COVER OF VESSEL.

HANGING VESSEL OF BRONZE FOUND IN VESTERGÖTLAND. THREE-EIGHTHS ITS REAL SIZE.

been put immediately upon the vessel, but has been fastened a little above it. The use to which these vessels were put is as yet unknown.

The gold vessels found in Blekinge have, in all probability, been used as drinking bowls; they are very thin, ornamented with figures in raised work, and probably belong to the later periods of the bronze age.

Near Kivik, in Skåne, is situated a large stone mound, in the centre of which a capacious stone coffin was found. This coffin is fourteen feet long, three feet wide, and four feet high. The inside of the stones are cut as shown in illustration below; the signification of them is yet in dispute, and the grave probably belonged to the earlier part of the bronze age.

GOLDEN BOWL — BLEKINGE. ONE-HALF ITS REAL SIZE.

On the drawings on the rocks in many places are seen horses and oxen, and in the graves are found remnants of hides, woollen clothes, sword and poniard scabbards of skin, works in horn, etc. That the horse was used for riding can be seen on the rock drawing near Tegneby, Bohuslän (p. 351). Wagons also were used, as seen on the coffin slabs near Kivik.

ONE OF FOUR COFFIN SLABS NEAR KIVIK, IN SKÅNE.

On a rock drawing at Tegneby, in Bohuslän, a man is seen ploughing. The plough is of the most primitive kind, and is drawn by two animals, probably oxen or bulls. This large tracing is highly interesting as one of the oldest indications of agriculture found on the peninsula of Scandinavia. Other reminiscences thereof are the simple scythes of bronze found in Östergötland. The grain was probably crushed in a hand-mill.

CLOTHING, ORNAMENTS.

On the rock drawings are often seen human figures, sometimes of nearly natural size; but none of them give any idea of the clothing worn during the bronze age. Recently there

HORSEMEN REPRESENTED ON A ROCK CUTTING AT TEGNEBY, IN TANUM PARISH, BOHUSLAN. ONE-TWENTY-FOURTH ITS REAL SIZE.

have been opened a few graves, which in an unexpected manner have let us know how the people dressed during the bronze age; the most remarkable of these is a large mound at Dömmestorp, in Halland, which contained a coffin made of carefully joined stone slabs, about forty inches in length. When the cover stones were removed the coffin was found entirely free from sand or earth, so that its contents could be easily examined. On the bottom lay a few pieces of burned bone, over which was spread a kind of woollen shawl; this extended over the whole coffin, and was laid in folds, in which was

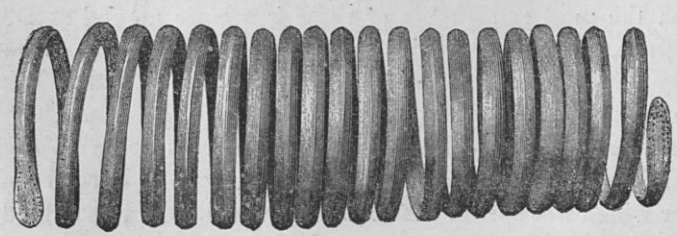
placed a bronze poniard, enclosed in a well-made and perfectly preserved leather scabbard with bronze clasps. The shawl was about five feet long and two feet wide; the color is now brown, but at each end was a light yellow border about four inches wide. Unfortunately, the cloth was so decayed that pieces only could be secured, which are now preserved in the National Museum in Stockholm.

From Danish mounds we know that the women's dress during the bronze age consisted of the same two principal parts as at the present time in use among the peasants; but if the men's clothes found in them can be regarded as a sample of their common dress, it shows a great difference even from that of the early historic times—especially the absence of trousers, which were commonly worn by all Germanic nations, though not by the Celtic tribes and the people of Southern Europe.

Many sewing implements of the bronze age, needles, awls, small pincers, and thin knives, almost always made of bronze, have been found in the graves. There have, however, been found a pair of pincers and an awl of gold. The awls, of course, were put in handles, and a few such, of bronze, bone, and amber, are still preserved; scissors were also in use. The needles are like those of the stone age, and made of bronze or bone; they are, however, less numerous than the awls, owing probably to the fact that the last were used to sew leather and skins, and the needles for sewing woollens, which were less used, and were costly.

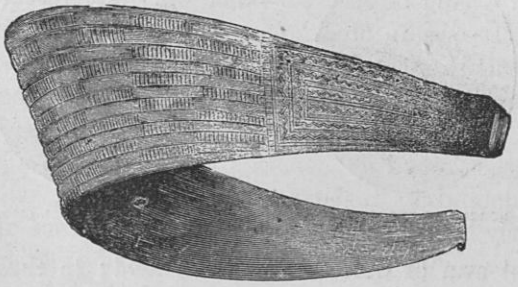
BRACELET OF BRONZE—SKÅNE. ONE-HALF ITS REAL SIZE.

Knives found in the later bronze age were probably used



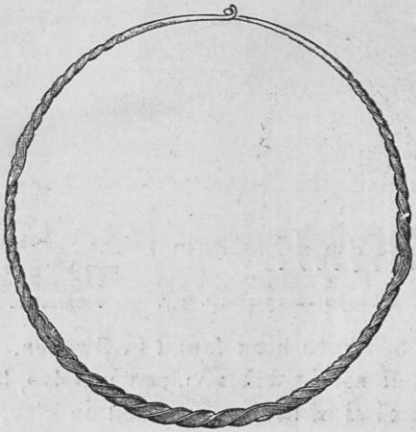
SPIRAL BRACELET OF BRONZE—SKÅNE. THREE-EIGHTHS ITS REAL SIZE.

in the making of clothing of skins, in cutting the leather and the fine strings or threads of skin with which the sewing was done: with the awl the holes were pierced, and with the pincers the thread was drawn through. They were probably also employed for other purposes.



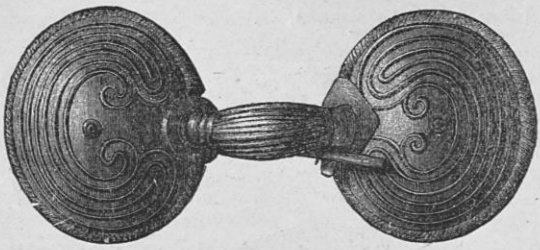
BRONZE DIADEM—SKÅNE. ONE-HALF ITS REAL SIZE.

The simple ornaments of the stone age were replaced in the bronze age by more beautiful and varied ones, principally of gold and bronze. Combs were of bronze or horn. As a general rule, the implements from the earlier period of the bronze age are remarkable for their beautiful designs, while during the later period they are much inferior. The same is true of the earlier period of the iron age, as compared with that of the later.



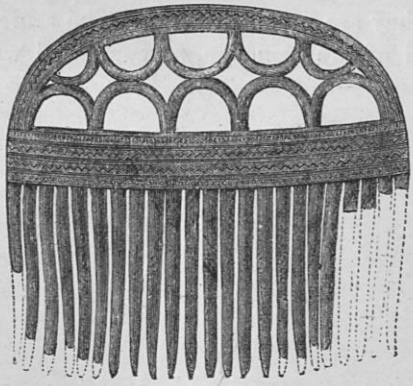
NECKLACE OF BRONZE—SÖDERMANLAND. ONE-QUARTER ITS REAL SIZE.

The weapons were, to a great extent, the same during the bronze age as in the stone age, *i. e.*, poniards, axes, spears, bows and arrows, and probably clubs and slings. The most



BUCKLE OF BRONZE—VESTERGÖTLAND. ONE-THIRD ITS REAL SIZE.

prominent arm of defence was the shield; to these may be added swords, and in a few instances helmets. In connection with the arms may also be mentioned the magnificent battle-horns of bronze found in several places. The shields were generally made of wood or leather, and seem to have been ornamented with a round bronze plate, with a point in the middle; they were sometimes entirely of bronze. Of swords and

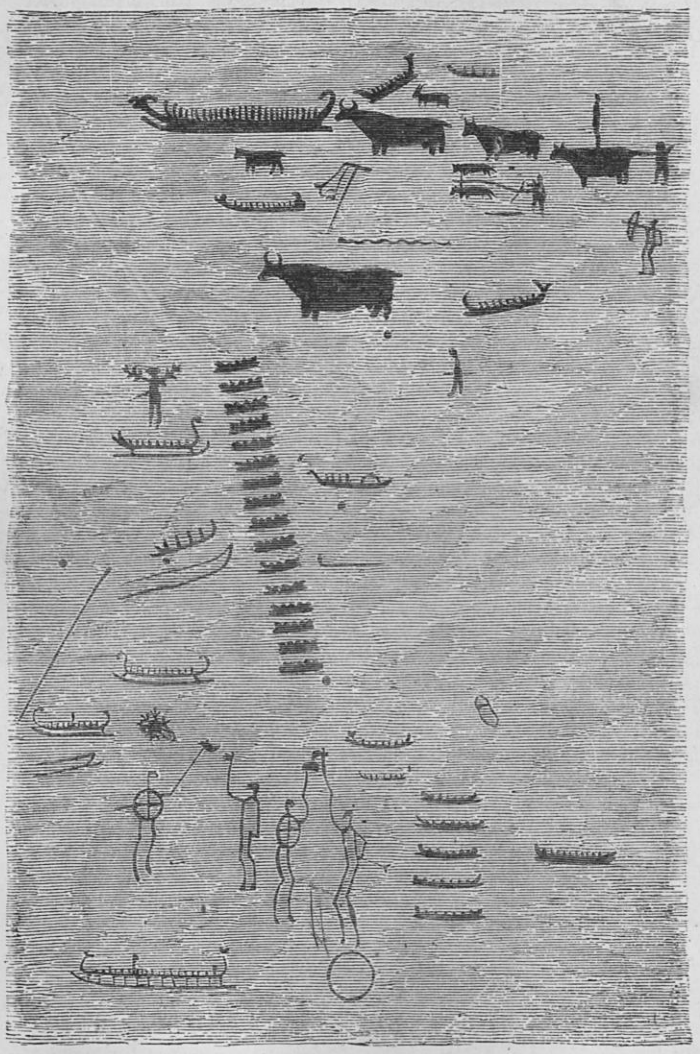


BRONZE COMB. THREE-FOURTHS ITS REAL SIZE.

BRONZE BUTTON—VESTERGÖTLAND. THREE-FOURTHS ITS REAL SIZE.

SPIRAL FINGER-RING OF DOUBLE GOLD THREAD—SKÅNE. THREE-FOURTHS ITS REAL SIZE.

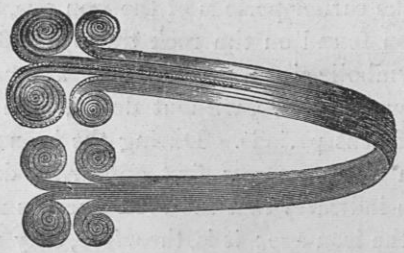
poniards over 500 have been found in Sweden. Fine bronze axes were found near Eskilstuna, not massive, but consisting only of a thin shell of bronze, moulded on clay, which is still inside; they, therefore, could not have been used for actual



ROCK TRACING AT TEGNEBY.

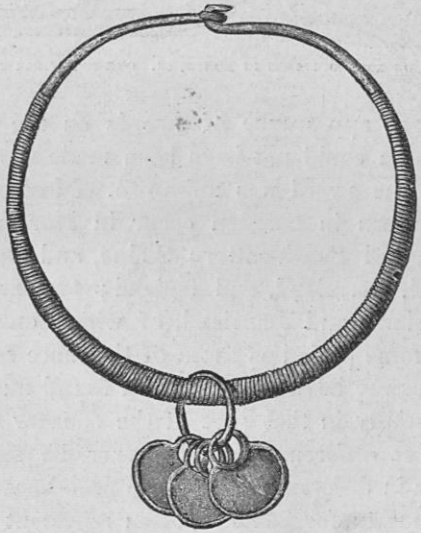
REAL HEIGHT, 26 FEET; WIDTH, 16 FEET.

warfare, but for purposes purely ornamental. A similar difficulty in distinguishing between battle-axes and axes used as tools occurs during both the stone and bronze ages.



GOLD ORNAMENT FOR THE HEAD, FOUND IN SKÅNE. TWO-FIFTHS ITS REAL SIZE.

The engravings on page 356 show vessels from rock tracings in Bohuslän. A similar one at Tegneby, in the same province, is of very large size—26 feet in height and 16 feet in width. They are all believed to belong to the bronze age: 1. From



NECKLACE OF BRONZE, WITH THREE SMALLER ORNAMENTS, FOUND IN SKÅNE. ONE-THIRD ITS REAL SIZE.

the difference between them and those on the Runic stones from the iron age. 2. The depth, for on the Runic stones the outlines only are given. 3. The different shapes of the swords. 4. The

different shapes of the vessels—those from the bronze age having the ends unlike each other, while those of the iron age are alike. 5. The absence of runas. It is known that runas were used during the earlier periods of the iron age, but in no place have they been found on the rock tracings. 6. Dissimilarity of religious symbolic signs—the "wheel" and "angular cross." Both these symbols have, without doubt, been used as such, though at different periods. During the bronze age only the wheel was in use, the cross first appearing during the iron age. All this indicates that the rock tracings must have been made before the iron age; it is, therefore, only necessary to ascertain whether they belong to the bronze age or the preceding period.

VESSELS FOUND ON ROCK CUTTINGS IN BOHUSLÄN. ONE-TWENTIETH THEIR REAL SIZE.

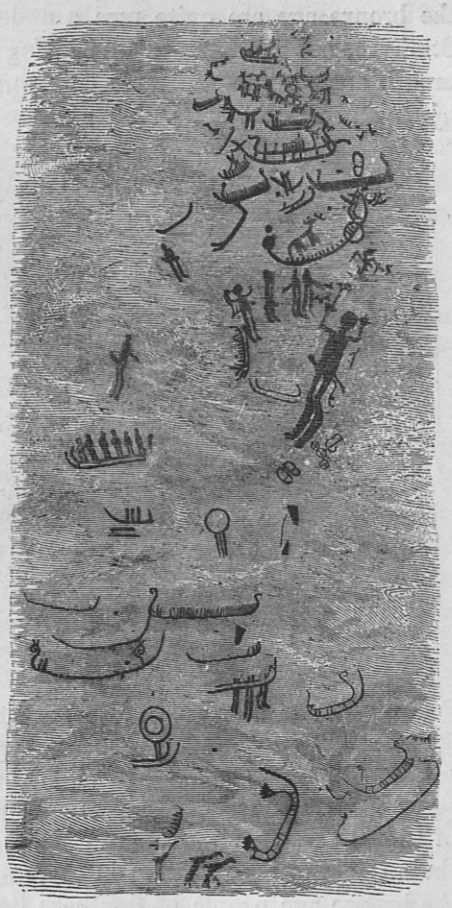
The frequent appearance of swords on the rock tracings shows that these could not have been made during the stone age, in which the sword was unknown. Most of the tracings at present known in Sweden occur in Northern Bohuslän, Östergötland, and South-eastern Skåne, and more rarely in Blekinge, Dal, Vermland, and Upland; two are also known in Ångermanland and Jemtland, of which one, perhaps, belongs to the same period as those of the more southerly provinces. In Norway have recently been found numbers of rock tracings, especially in that part of the country adjoining Bohuslän. Great difference can, however, be shown between these tracings in different parts of the Scandinavian peninsula. Those of Bohuslän, for instance, often represent men and animals, while this is rarely the case with those of other provinces. In Östergötland swords and shields, not carried by men, are not unfrequently represented, which hardly ever occurs on rocks in Bohuslän. Vessels are seen on most tracings, but their shapes are not the same in different provinces; in

almost all, however, occur the wheel-shaped symbols, the small bowl-formed recesses, sandals, and other figures. The tracings are always cut on rocks polished by the ice of the glacial period.

During the later periods of the bronze age the custom of burning the dead was introduced into Scandinavia; but in the earlier part the bodies were buried unburned.

The graves of the bronze age are generally covered by a mound of sand and earth or stones, often containing several burial-places. Many stone mounds do not belong to the bronze age, but to more recent periods of the heathen times, so that it is often impossible, without a knowledge of its contents, to determine to which period a mound belongs.

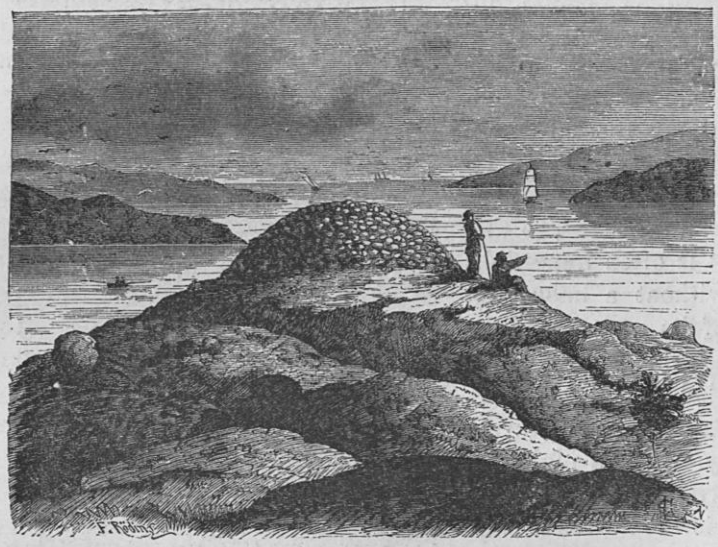
The graves generally lie on a high hill, with an unobstructed view of the sea or large sheet of water. The stone mounds, especially of this age, are situated on high rocky points.



ROCK CUTTING NEAR BACKA, IN BRASTAD PARISH, BOHUSLÄN. ONE SIXTY-SEVENTH ITS REAL SIZE.

During the stone age, to judge from the known finds of antiquities, hardly more than Götaland and certain parts of Southern Svealand were inhabited; before the end of the bronze age the country north of the Mälar, possibly also north of

Dalelfven, had been occupied. Although the settlement of Norrland by other people than Lapps probably did not occur until the iron age, two finds have been made in Medelpad which evidently belong to the bronze age: one is an exceedingly well preserved sword from Njurunda, and the other a chisel from Timra. In Finland, where the antiquities of the bronze age are quite rare, a sword has been found near Storkyro, not far from Wasa; and on the Norwegian coast bronze arms occur still farther north, even to Nordre Trondhjems and Tromsö amts.



STONE MOUND ON THE COAST OF BOHUSLÄN.

As antiquities from this age must also be regarded the few stone implements of South Scandinavian types met with north of the Mälar, sometimes as far north as Skellefteå. Besides these traces of a population in these northern parts related to the bronze age people of Southern Scandinavia, there has recently been found in Lapland a remarkable relic of that age of another people, namely, a hollow chisel; it differs entirely from those heretofore found in Scandinavia, though corresponding exactly to those found in Russia and Siberia.

Before closing our remarks on the stone and bronze epochs, it may be noted that the antiquities of the stone age are alike in the three Scandinavian kingdoms, and also in the northern part of Germany, and undoubtedly came from a people of the same origin. Several finds of that age have been found as far as the Salten fjord, latitude 67°, and even on the island of Senjen, latitude 69° 20′; but both in the north of Sweden and Norway these are very rare, and are generally met with single; and no graves belonging to that age have been found in those regions.

It is especially in the southern part of the Scandinavian peninsula and in Denmark that they have been discovered in great number. In Norway they are most common near the Christiania and Trondhjem fjords, Lister and Jæderen districts. Some have been examined inland; those of slate have been discovered only in the north.

The stone age was, no doubt, of a longer duration in the Scandinavian countries than in the rest of Europe, and the people there attained a higher civilization, as shown by their implements, which exhibit finer patterns and more finished workmanship.

The implements belonging to the bronze age contain generally ninety per cent. of copper and ten per cent. of tin. They are mostly cast, their ornaments being partly engraved, partly hammered after casting. The finds of that age have been met with hitherto in Norway as far as 66° N. in small number; they are most common in the Jæderen and Stavanger districts, and more so near the shore than inland. These, like the antiquities of the stone age, are far more numerous in the southern part of the peninsula and in Denmark. In Norway burned and unburned bodies have not as yet been found together in the same mound.

It is only from the two later periods of the iron age, mentioned in the following chapter, that Norway shows a population approximate to that of the other two Scandinavian kingdoms. The finds of the earlier iron age occur in Norway in the graves, while those of the two later periods must have been buried as treasure, as they consist often of objects of gold.

More or less extensive attempts to decipher the Scandinavian rock-tracings have been made, but with no decided results. It has been claimed by some Scandinavian archæologists that certain figures have a symbolical signification, which, no doubt, is the case. For instance, the concave recesses represent a drink or liquid; a curved line a wave, etc.; a group consisting of a ship, a bee, and such a curved line, were considered to express *mead-horn*, in the figurative sense of "the ship of the *beevawe*" (the honey-drink); a small cup with a spear-point near it was explained as meaning blood, or "the drink of the spear."

But although we cannot hope to learn the correct interpretation of these tracings, they are not entirely incomprehensible to an intelligent observer. They tell a great deal about peaceable occupations and deeds of war on land and sea of which otherwise nothing would be known; they tell of agriculture and cattle-raising; of the use of the horse for driving and riding; of vessels and navigation, for both trading and warlike purposes, showing that even at this early period the people undertook those voyages to foreign lands which, during the Viking age, culminated in their renowned expeditions.

CHAPTER XXX.

EARLIER, MIDDLE, AND LATER AGES.

The Earlier, Middle, and Later Iron Ages of Sweden and Norway.—Their Duration.—Finds of Foreign Coin.—Commercial Intercourse with the Romans.—Numerous Graves of the Iron Age.—Interesting Finds of the Iron Age.—Beautiful Objects or Ornaments of Bronze, Silver, and Gold.—Dress of a Norse Chief.—Value of Glass-ware.—*Eautastenar* (Graves).—The Runas.—Runic Alphabet.—Earlier and Later Runas.

The iron age includes the pre-historic period, during which the inhabitants of Sweden and Norway first became acquainted with iron, silver, lead, glass, ivory, stamped foreign coins, the art of soldering and gilding metals, etc.; and, most important of all, the art of writing in the characters or letters known as the *runas*.

By the aid of a great number of foreign coins found among the Scandinavian antiquities of the iron age, and by comparison of the graves and other remains of this period, it is possible to distinguish, at least, what belongs to the beginning, the middle, and the end of the same, viz: (1) The beginning of the iron age, or the so-called earlier iron age, which embraces the time from about the beginning of the Christian era to about the year 450 in Scandinavia. (2) The middle of the iron age, from A.D. 450 to about 700. (3) The end of the iron age, or the so-called later iron age, from about 700 to the latter half of the twelfth century.

A large number of coins, bronze and glass vessels, arms, etc., and even works of art of Roman origin, show that during the later iron age the Swedes had a pretty extensive commercial intercourse, either directly with the Romans or with some people trading with them. One of the most remarkable finds of Roman works was in 1818, at Fycklinge, near Vesterås;

here was found, in a grave-mound, a large bronze vase containing burned bones and a few pieces of melted glass. On the vase was an inscription, saying that it was consecrated to Apollo Grannus by Ammilius Constans, superintendent of the temple of the god. This magnificent vessel is about eighteen inches high, the ornaments around the upper border being inlaid in silver. Roman bronze vessels, without inscriptions, have often been discovered in Gotland.

ROMAN BRONZE VASE FOUND IN A MOUND NEAR VESTERÅS, WESTMANLAND. ONE-FIFTH ITS REAL SIZE.

In Norway a great many old graves (mounds) belonging to the iron age have been found. In these mounds quite a large number of interesting objects have been discovered; among others a piece of gold jewellery, worked in filigree, of such tasteful and finely executed design, that it is without doubt the finest piece of workmanship yet found in any mound in Scandinavia. The gold is, besides, nearly pure (23 karats).

In Hovin annex (parish), near Trögstad Railway Station, Smaalenenes Amt, is situated the so-called Raknehaug (Rakne mound), probably the largest one of any in the Scandinavian kingdoms; it measures 60 feet in height, and 300 feet in diameter at its base.

With the aid of the numerous finds from the older iron age in the North, we can gain a pretty accurate insight into life and civilization in Scandinavia during the centuries when Paganism and Christianity fought for the ascendency in the Roman world, and when the attacks on the borders of the empire by the Germanic nations became more frequent and violent, until it ended in the victory of the "barbarians," the ruin of Rome, and the apparent destruction of the ancient civilization.

From the engraving on page 364 an idea can be had of the manner in which a northern chief appeared about 1500 years ago. The representation is not an imaginary one, but can with good reason be considered historically true. The clothing, arms, and ornaments are exact drawings of those found in Danish peat-bogs at Thorsbjerg and Nydam, in South Jutland. The peat has preserved in a most astonishing manner the most delicate and generally most perishable things, so that we are here enabled to find the clothing, wood-work, and the like, from the earlier iron age, in a very perfect state. The clothes are of wool, the texture finer than those of the bronze age, and the pattern is often checkered. The principal parts of the suit are a long jacket with sleeves reaching to the wrists, and trousers, which are kept together with a leather strap around the waist, and below sewn on to long socks. The outer covering for the feet is a pair of sandals of leather, with finely worked ornaments. Over the shoulders is thrown a cloak, with lengthy fringe at the lower end. One found in these bogs has preserved its color, which is green, with yellow and dark-green borders.

In the beginning of the iron age appears another novelty, the shears, which are very similar to those now in use. The clothes during this age were generally kept together by pins or buckles, which are found in great numbers in graves of this period. Buttons or hooks are seldom seen. From the grave-

finds—the only source of knowledge about the use of these buckles and other ornaments—it has been ascertained that several buckles were worn at the same time. Thus, in a grave containing a skeleton, there were exhumed no less than four.

NORSE CHIEF IN HIS COSTUME (FROM THE EARLIER IRON AGE).

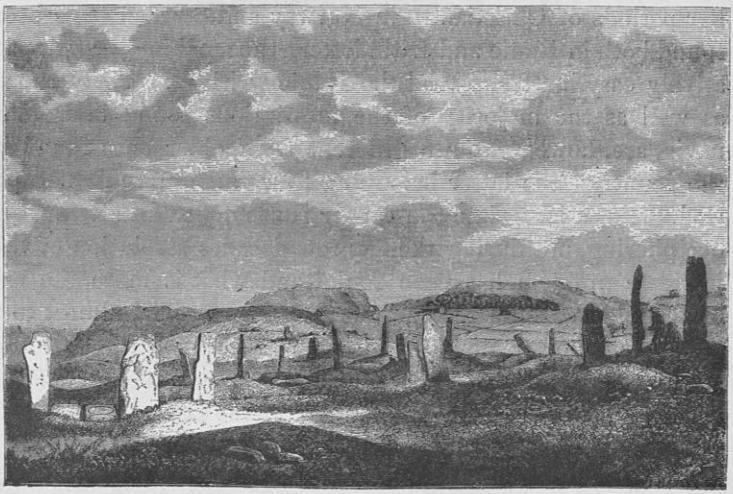
One had been used below the neck, one on each shoulder, and one on the middle of the chest. The arms were principally the same as during the bronze age, although of somewhat different shapes. Two-edged swords were common.

Horns were used during this period as drinking cups, and also Roman and domestic vessels of glass, bronze, silver, with, of course, wood and burned clay. The latter, which probably were almost entirely of domestic manufacture, are much finer,

thinner, and better burned than those from the bronze age. The shape, also, is generally very tasteful. The clay vessels from the earlier iron age, as well as those from the two preceding ages, are not glazed.

Glass was highly valued during this period, which may be inferred from the fact that in several graves have been found clay vessels in which pieces of broken glass were inserted as ornaments. Besides the drinking vessels, dice and checkers are occasionally unearthed. On a stone found in Upland, but now kept in the National Museum at Stockholm, is shown a boat from the iron age, very similar to those still in use on the coast of Norway, especially in Nordland.

Generally the graves from the iron age are covered by a round or oblong mound of earth or stone. Often they are ornamented by *bautastenar* (grave-stones), large and upright, sometimes of considerable height. One of the most extensive



GRAVE-STONES (BAUTASTENAR) AT GREBY, IN BOHUSLÄN.

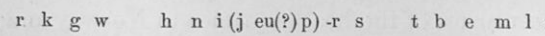
grave-fields of Scandinavia is situated at Greby, near Grebbestad, on the coast of Bohuslän. There are still seen more than 150 partly round, partly oblong mounds, close together, and on the top of each, or between them, rise massive bautaste-

nar, the highest measuring not less than 14 feet above ground. The bautastenar of that period are now nearly all illegible, while the memory of those in whose honor they were erected died out centuries ago. Occasionally one of them has a short inscription, and this generally gives only the name of the dead person. At Björketorp, in Blekinge, not far from Ronneby, three magnificent stones are seen, one of which bears an inscription containing a curse upon any one destroying the monument. There are earlier runas, which are unlike those on stones from a later period. Of these earlier runa stones five are found in Blekinge, two in Bohuslän, one in Vermland, one in Vestergötland, one in Östergötland, two in Södermanland, and two in Upland.

THE RUNAS.

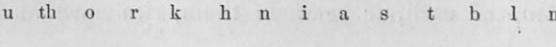
As late as the beginning of the sixteenth century the use of Runic characters was still prevalent among the Scandinavians in out-of-the-way places. Some writings from the earlier periods of Christianity in Norway and Sweden have been found both in Runic and Latin letters, thus making it a comparatively easy matter to read the Runic writings. These runas, as well as the majority of the inscriptions found in Scandinavia, are, however, quite different from older ones found in the country—the latter belonging to a much more remote period. For a long time the earlier runas defied all attempts at deciphering, but during the last few decades a solution of this intricate problem has been found, and what is more, the age of the oldest Runic inscriptions has been proved almost to a certainty. So far, none earlier than from about the year 300 after Christ have been discovered—their date corresponding with the time of the earlier iron age of the peninsula.

EARLIER RUNAS.



f u th a r k g w h n i (j eu(?) p) -r s t b e m l ng o d

LATER RUNAS.



f u th o r k h n i a s t b l m -r

Formerly it was believed that the runas were invented by the Germanic nation, without any reference to the alphabets of other South European people. Further researches have, however, proved conclusively that such is not the case. The earlier runas consisted of 24 characters, with signification as shown above. The Runic signs for *th* and *w* probably have expressed the same sounds as these letters in the English alphabet. The sign for *r* occurs at this time only at the ends of words, and it at first represented *s*, but afterwards, as the language changed, its signification became *z*.

By observing the oldest symbols and their meaning, it will immediately be noted that great similarity to the alphabets of the old South European people exists. No one would, for instance, suppose it to be a mere accident that the Runic signs for *r*, *k*, *h*, *i*, *s* and *b* very closely resemble those of the Latin alphabet, and partly, also, those Greek characters having the same signification. In the adaptation of the foreign alphabets, however, the Germanic people exhibited a remarkable independence in giving the letters new names differing from those of the originals, and also in the arrangement of the same. All South European alphabets begin with *a*, *b*, and so on ; but the arrangement of runas begins with *f*, *u*, *th*. Another innovation was the division of the alphabet into three groups, each containing eight characters. The earlier Runic writings also differed from most other languages in their being written from the right to the left. On the later inscriptions the writing is, however, done in the manner at present in use, or from left to right.

The later runas differ quite considerably from the earlier ones used during the older iron age, but a careful analysis has shown that this difference arises only from gradual changes in form, and sometimes also in signification. Besides this, also, some have fallen out of use, making the number used during the last centuries of the heathen times in Norway and Sweden, generally called the *later runas*, only sixteen.

A Runic stone at Skåäng, in Södermanland, is remarkable, because, several hundred years after the cutting of the original inscription, the slab had again been used and provided with a

new inscription. The earlier of these (in a line along the middle of the stone) reads "Haringa Hleugar," while the later one (in the sling around the edge of the stone) says, "Skanmals auk Olauf thau letu kiara merki thausi eftir Suain fathur sin Kuth hialbi salu hans;" or, "Skanmals and Olauf (women's names) they let make these memorials after Sven, their father. God help his soul!"

In the implements of the first period of the iron age one sees no trace of Roman civilization, which at that time had not advanced so far North; in the second period this influence is seen, as the objects found bear a close resemblance to theirs; in Norway it was less felt, the finds of money being less numerous. In that country antiquities from the earlier iron age are scarce, and, like those of the stone and bronze ages, are less common than in the two other Scandinavian kingdoms; they have been met with in Norway as far as 69° N.

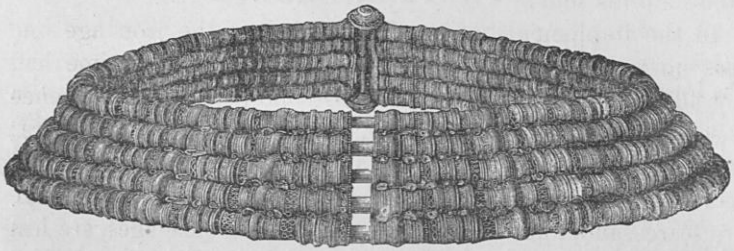
Burning the dead no doubt was prevalent in the first period of the earlier iron age; and in most of the graves charred bones occur scattered on a bed of charcoal, or buried in a hole, or gathered together under a tumulus: in the last case they had been no doubt put in a wooden vessel; often they are found in earthen or bronze urns, which are frequently surrounded by stones arranged in a square.

THE MIDDLE OF THE IRON AGE.

During the middle of the iron age there must have been an abundance of gold in Sweden, as shown by the great number of ornaments found in different places, and now preserved in the National Museums of Stockholm and Christiania. Byzantine gold coins of this age have been found in Öland. The largest and most valuable treasuré ever heard of in Sweden, and perhaps in Europe, is one found in 1774 near Trosa; its weight was twenty-eight pounds, and it consisted of several gold rings, larger and smaller, of a large necklace, in its thickest part the size of a finger, besides several ornaments—probably for swords—the metal of which was remarkably pure, containing 98 per cent. of gold. Of this magnificent find only a small part was saved for the State, the remainder hav-

ing been melted down before the authorities obtained any knowledge of the discovery. Spiral rings have been quite often found in other places, and it is believed that they served as tokens of value, or money.

The most beautiful of all the gold-finds from the heathen era are three large, wide necklaces—at present preserved in



NECKLACE OF GOLD.

the Historical Museum of Stockholm—weighing 1½ to 2 pounds each. They consist of several (three, five, or seven) tubes, lying one above the other, covered with most exquisite filigree and other ornaments; at the back is a joint, and in front the necklace is kept together by the ends of the tubes being entered into each other. One of them was found on the slope of Ålleberg mountain, near Falköping; another, near Möne church, about 17 miles from the former place; the third (shown in the engraving) was found in 1860 at Torslunda, near Färjestaden, on Öland.

CHAPTER XXXI.

THE LATER IRON OR THE VIKING AGE.

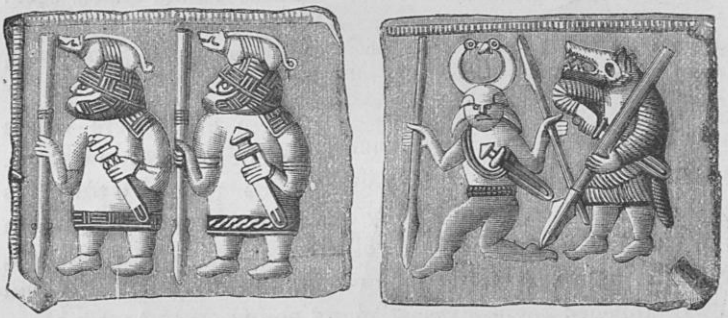
The Later Iron or Viking Age.—Sudden Appearance of the Vikings in Western and Southern Europe.—Arms Used by the Vikings.—Peaceful and Warlike Expeditions.—Interesting Inscriptions on Runic Stones.—The Ancient Bridge of Täby.—Bridges with Runic Stones.—Customs and Habits of the Scandinavians in the Latter Part of the Heathen Period.—Modes of Building.—No Chimneys.—Stone Forts.—Remains at Ismanstorp.—Household Utensils.—Mode of Burial during the Viking Time.—A remarkable Runic Stone.—Art of Ship-building among the Norsemen.—Large Fleets.—Runic Stone illustrating Ship's Forms.—Viking Ship found in Southern Norway.—How Vikings were Buried.

From about A.D. 700 to A.D. 1060 there appeared on the shores of Western and Southern Europe a people who became the dread of its inhabitants, for they came only for plunder. The fleets of these Northmen controlled the sea, and their power, wherever they went, seemed almost irresistible. After a while they established themselves at many points on the coast they had conquered, and founded kingdoms. At that time society was in a chaotic state, and had not recovered from the darkness which had befallen it after the fall of Rome.

From the French and English chronicles of that period one gets but an imperfect and wrong idea of the character of the Vikings. We must remember that these accounts were written by their sworn enemies—men who did not have the same religion, and who looked upon the victorious Northmen as the embodiment of rapine, cruelty, of everything that was wicked. But the Vikings were not without culture and noble qualities. Brave and daring they were, and when weighing carefully the facts which have come to us, we learn that many of these powerful warriors were endowed with great ability, that they governed well the countries they had conquered, and after battle were—as brave men generally are—imbued with a spirit

of generosity towards their defeated foe. Men often falsify history unawares, when blinded by hatred, prejudice, or bigotry, to suit their own purpose.

About the arms, which once made the Northern Vikings so redoubtable, we get from the numerous finds and the many sagas very good information. From these one sees that their arms were principally the same as during the earlier iron age, and the engravings below show bronze plates with raised figures representing different forms of helmets in use during this period. The arms used were sword, spear, club, bow and arrows, and the much dreaded Viking axe. The spear-points as well as the axes were often inlaid with gold and silver.



BRONZE PLATES, WITH RAISED FIGURES, FOUND IN ÖLAND. THREE-FOURTHS THEIR REAL SIZE.

Bows and arrows were generally used for the hunt, but in sea battles they also played an important part.

Of these weapons the most formidable were the double-edged swords, which, therefore, were highly valued by the Norsemen of old. Their qualities were praised by the Skalds in their songs, and the old sagas tell us how they were passed as heirlooms from father to son for generations, some even being traced back to the possession of the Asagods. Many of them were ornamented with finely executed designs in gold, silver, and bronze. A well preserved one was found a few years ago in Southern Skåne, and is now kept in the museum of the State.

Of the numerous voyages eastward by the Vikings, both for peaceable and warlike purposes, a large number of Runic stones

in different parts of the country bear witness. On one Runic stone in Södermanland is written that it was raised by Sirid to her husband Sven, who often sailed with valuable ships to Semgallen, near Tumisnis. Semgallen is the eastern part of Kurland, on the river Düna, and Tumisnis is Domesness, the most northern point of Kurland. On another, now in a tower of the castle at Gripsholm, the Runic characters read: "Tula lit raisa stain thins at sun sin Havalt bruthur Inkvars. Thair faurn trikilk fiari at Kuli auk austarlar ni Kafu tuu sunarla i Sarklanti" (Tula raised this stone to her son Havald, Ingvar's brother. They went bravely far away to Kul, and farther east in Kafa they died, southward in Särkland [Saracen land]).

RUNIC STONE AT THE NORTH END OF THE BRIDGE AT TÄBY, IN UPLAND.

These Runic stones seem also in reality to belong to the first part of the eleventh century.

There are others which tell us of voyages to Greece. In Eds parish, Upland, is one, the runas on which were cut by one Ragnvald, who in Greece was chieftain of the army. At Fjukeby, not far from Upsala, is another, cut by a father to the memory of his sons, of whom one was chief of the Vikings (*Väringarne*), who went to Greece but died at home. Stones telling of expeditions to Greece are to be found not only in the coast provinces of Upland, Södermanland, and Östergötland, but far away in the country districts. On one of those found in Upland there is an inscription telling of a man who died in Långbardaland (Lombardy), in Northern Italy.

At Täby, north of Stockholm, the country road, up to the present time, leads over an old bridge of stone and gravel,

having its sides lined with several high stones, raised at even distances from each other, and with a number of small ones forming a chain from one end to the other. The large stone at the north end of the bridge has the following inscription: "Jarlabanke had these stones raised for himself while he was yet alive. He built this bridge for his soul's welfare, and he was the owner of the whole of Täby. God save his soul."

The form of these runas, as well as of some others found in the same neighborhood, which likewise bear Jarlabanke's name, shows us that he was living in the eleventh century, rather before than after the middle part. The bridge at Täby has, consequently, been in use about eight centuries.

RUNIC STONE, WITH FIGURES, NEAR LEVEDE, IN GOTLAND.

[The runas are so much obliterated that they cannot be deciphered.]

At other places in Sweden one may yet see the bridges of which Runic stones from the early days of Christianity bear witness. Others have been rebuilt. When the bridge leading over a brook near Kullerstad church, in Östergötland, was being rebuilt, about the year 1850, there was found a fallen and forgotten stone, which was raised up again. Its inscription commences: "Hakun made this bridge, but it shall be called Gunnar's bridge." One stone at Sundby, near Upsala, tells us that Ture had made *sälohus* (quarters) after his wife's death. Such quarters were built on the roadside in the

wilderness, where the tired traveller could not get a roof over his head in any other way.

CUSTOMS, HABITS, AND INDUSTRIES.

The great bulk, perhaps the greatest, of the population of Scandinavia, at the latter part of the heathen time, were living in villages, the most of which even then may have had the same name, and been situated in the same places as at present, or at least until the new divisions of the land broke up those old villages. This may be seen from the marked circumstance that by the side of each village, especially in the provinces around Lake Mälar, are still found the grave-fields where the heathen population of the villages are resting. As the art of burning lime and bricks was probably first introduced in the North at the time of Christianity, the houses of this time were evidently of the same kind as those of which ruins have been found at Björkön or Lake Mälar. These ruins, the oldest known in Sweden, consist of pieces of hardened clay, which retain their forms perfectly, in consequence of the strong heat they were subjected to when the houses were burned. It is by the guide of these that we distinguish between two different kinds of buildings, clay huts and wooden houses in which the joints between the timbers are closed with clay. Ruins of the former kind of buildings show pieces of clay of irregular form, on one side usually smooth, but on the other—the one turned inward—impressions of twigs, generally somewhat more than half an inch thick.

The inner part of these houses consisted generally of one oblong square room, the longer sides of which were rather low, often less than a man's height, and lacking both windows and doors. The entrance was at one end, and was protected by a porch. Where a window was used, it was placed on the roof, which generally had a high pitch, and rested on cross-beams from one long wall to the other. They had no chimneys, only an opening in the roof through which the smoke arose from the fireplace in the middle of the room. The roof was covered with straw, turf, or shingles. The furniture in the houses of the heathen was neither abundant nor

valuable. Benches and bedsteads fastened to the walls, long tables in front of these benches, and a chest or two for keeping the treasures of the family—these were the principal if not all the furniture. Chairs are sometimes spoken of, but not often. Odin quotes thus from the song Havamal—

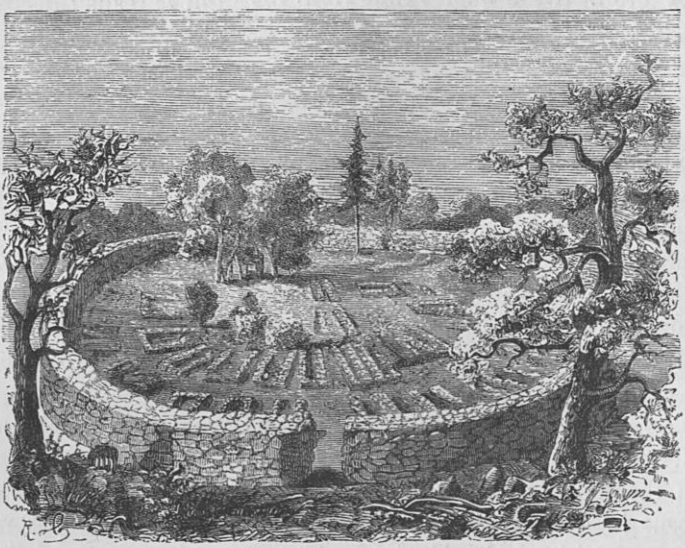
> Gunlöd me gave,
> Upon the golden chair,
> To drink of the costly mead;

and in an Icelandic saga we are told how a man broke into a grave-mound in Norway in the year 1011, and there found Högbon (inhabitant of the mound) sitting on a chair, and under his feet a shrine (casket) filled with gold and silver. Unexpectedly enough, once in a while remnants of cushions from the time of the Vikings have been found. Some years ago such a discovery was made in a grave-mound in the south-eastern part of Norway.

As a protection against and refuge from the attacks and incursions of enemies, probably most of those stone forts seen on the heights in the different provinces were built. They occur in great numbers, especially around the Mälar, as well as on the islands in that lake. The engraving on the following page shows such a fort at Ismanstorp, in Öland. The wall is built of granite boulders and limestone, and is very solid, though no trace of mortar can be seen; its height is about 15 feet, and its width 9 feet at the top where it is not damaged. Several openings lead into the fort, the diameter of which is no less than 400 feet. The foundation walls to numerous houses are still seen inside the fort.

For making fire, flint and steel were used, as is proved by numbers of these found in graves of this age. Of the utensils in use during this period a pretty accurate idea can be formed from those found in numerous graves. Of these, especially, a large number of vessels have been preserved. The cooking utensils were of bronze, clay, stone, or iron. Drinking-vessels were of gold, silver, glass, clay, but more generally of horn. Knives were used, as were also spoons of wood and horn. Furs, skins, woollens, and linen have been

found, and sometimes silk; ornaments of bronze, silver, and gold were also in use. Dice and checkers have been found, and traces of chess figures, showing that this game must have been known during the ninth century, if not before.



FORT AT ISMANSTORP, IN ÖLAND.

The mode of burial during the Viking times is shown by immense numbers of graves of this period; they are found in Norway as far as Lofoden or the main-land. From these it is seen that the corpses were sometimes burned, and sometimes buried unburned. The graves are marked either by mounds or stones in a square, by a three-pointed figure, or by the outlines of a ship—the latter probably being over graves of Vikings. On the tops of the mounds are often seen round stones ornamented with circles or other figures.

Near Björkön, also called Birka, are found many grave-mounds, probably more than in any other place in Scandinavia: the number still visible is about 2100, but many have been destroyed during the centuries that have elapsed. More than 500 of these graves were carefully examined during late years; everything found in them has, as the "black earth"

denotes, shown them to have belonged to the latest part of the pagan era.

A remarkable Runic stone was found at Röks church, in Östergötland. It is the longest Runic inscription found anywhere in the world. The inscription proper reads thus:

"To the memory of Våmod these runas stand;
Them Varen the father cut
After the fallen son.

"I tell of my son, who took double booty twelve times, each from different men. This I tell as the other, how he was surrounded by nine flocks of enemies from far away Rejdgots, and thus he found his death in the battle.

"Formerly the king,
Vikings' courageous
Chieftain, reigned
Over Rejdsea shores.
Armed on the charger
Now sits the generous
King—over the shoulder
The shield is hung.

"This I tell as the twelfth,
How the horse of Valkyrja (the wolf)
Finds fodder widely around on the meadows
Where twenty kings lay fallen.

"This I tell as the thirteenth,
Which twenty kings sat in Zealand
In four winters, with four names,
Sons of four brothers: five of name
Valke, sons of Rådulf; five Rejdulfar,
Sons of Rugulf; five Hågislar, sons of
Härvad; five Gunmundar, sons of
Örn. . . . I tell of my son, what heroes'
Descendant he is: it is Vilen. He may
Always plough the waves: it is Vilen.
The Viking flees."

The art of ship-building stood high in the North, and the Norsemen's ships were numerous. Snorre Sturlasson says: "King Anund Jakob, in a war with Denmark, had a fleet of upwards of 400 vessels." At other times even greater numbers are spoken of. In the saga about St. Olaf we are told that "Knut the Great (Canute), for his attack on Norway,

had brought together a fleet of 1440 vessels. These were driven forward partly by the use of sails and partly by oars. On each was generally not more than one mast and one sail. The sails were usually of coarse woollen stuff, and sometimes of silk, with blue, red, and green stripes. The number of oars was often very great, and the size of a ship was known by the number of seats for the rowers. Olaf Tryggvesson's ship, *Ormen Långe* (The Long Serpent), the largest at the time in Norway, had thirty-four pairs of oars, and a crew of nearly 1000 men. Canute the Great owned a *dragon* (a ship with a dragon's head in the stern) which had upwards of sixty pairs of oars."

From the tracings on gravestones and rocks in Scandinavia, and from the finds, one gets an idea of the shape of the vessels that were used in ancient times. In Alskog parish, at Tjängvide, in the southern part of the island of Gotland, there was a Runic stone about five feet high; it is now in the museum at Stockholm. At the base is a dragon-ship with only one mast and one sail. On the deck there is a row of armed men, and above all an eight-footed horse—a representation of Sleipner, the horse of Odin—in front of which are men making offerings. (See engraving on the following page.)

That burial in ships was not uncommon in the North during the Viking age is proved both by the narratives of the sagas and by several finds during recent times. In Sweden, Norway, and Denmark have been discovered mounds, enclosing vessels in which warriors were buried with their weapons and horses.

In the saga of Hakon the Good, Snorre Sturlasson gives an account of a battle which this king, in 954, fought against the sons of Erik Bloodaxe and their mother, Gunhild, in which the latter were defeated. On the side of Hakon fell, among others, Eigil Ullsärk. After having won the battle, King Hakon took those of Erik's sons' vessels which were lying on dry land and caused them to be dragged high up on the shore; he then placed Eigil Ullsärk and all those who had fallen on his side in one of these ships, and buried it in a mound of earth and stones; he also buried his enemies in

other ships. These mounds are still seen south of Frejderbjerg, at the entrance of the Nord fjord. High bautastenar mark the grave of Eigil Ullsärk.

RUNIC STONE AT TJÄNGVIDE.

Near Borre, in the neighborhood of Horten, not far from the Christiania fjord, were found in 1852, in a large mound, the remains of a ship which had been from 50 to 55 feet long; and, in this, burned human bones, skeletons of three horses and of a dog, besides several valuable antiquities. A

tradition says that this mound enclosed the graves of the Vestfold kings, Östen and Halfdan, who flourished at the end of the eighth century.

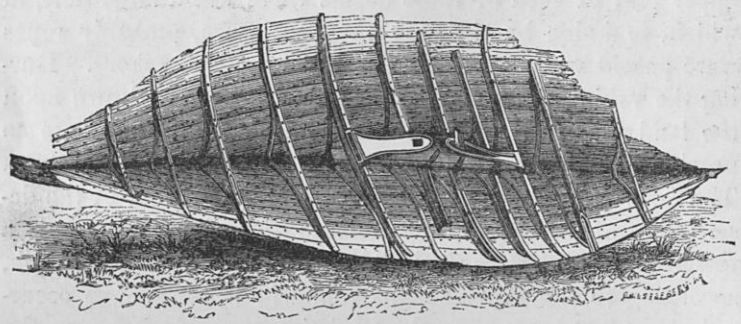
In another mound at Ultuna, south of Upsala, in 1855, were found the rotten but still plainly visible remains of a vessel, in which a man had been buried with his arms and his horses. The bolts which held the planks together still remained in their places. The vessel seems to have been as large as a small sloop. By the side of the corpse lay a sword, with a magnificent hilt of bronze, beautifully ornamented, as well as the remnants of the wooden scabbard and its gilded mountings. Besides these were found a helmet, with crest of silver-inlaid bronze—the only helmet from the heathen time found in Sweden—a shield buckle of bronze-inlaid iron, the handle to the shield, a bundle of arrow-points, mouth-pieces to two bridles, thirty-six checkers, three dice, and parts of two horse skeletons. In the stern of the vessel were lying a broiling-iron, a pot wrought of riveted plates with immovable handle, and bones of swine and geese—remains from the burial-feast, or the knapsack given to the deceased on his journey to Valhalla. The metal of which these articles were made was iron, except when otherwise specified.

At Nydam, on the coast of Southern Jutland, was found in a swamp, in 1863, a large and fine boat, built of oak, which was propelled by 14 oars on each side. Its length was 80 feet, its width at the broadest part 11 feet; it was very high, and pointed at each end, sinking in the centre to a height of 5 feet, resembling very much the surf-boats of the present day. It was constructed of eleven heavy planks, five on each side, and the other was placed in the bottom, and was cut in such a shape as to form a keel. The timbers overlapped each other, and were riveted together by iron bolts, of which the round heads appeared on the outside, the spaces being calked with a material composed of woollen cloth steeped in pitch. These timbers were joined in a curious manner to the ribs of the boat; at each place where they touched the latter a longitudinal strip was cut out on either side, and a hole bored through the block which was thus formed; a hole was also

bored sideways through the rib in a position corresponding to that in the block, and through these a rope, made of the inner part of the bark of the linden, was passed and securely tied. This gave the boat a high degree of suppleness, which was advantageous in the surf and in heavy seas. At each end was a beam rising to a considerable height above the boat, and to which the ends of the timbers were nailed. Through the upper part of each of these beams there was a large hole, in which, to judge by the way they are worn, probably ropes were passed when the boat was to be dragged ashore. During the Viking times even the larger vessels were drawn upon the land during the winter. Both ends of the boat are so nearly alike that it is difficult to decide which is the stern. The form reminds one in the most forcible manner of the descriptions of the ships of the Suiones given by Tacitus, only a few generations before the building of the Nydam boat, which, according to the Roman coins found in it, must have occurred about 300 years after the Christian era. Tacitus says the ships of the Suiones are unlike those of the Romans, so that, in whatever direction they were rowed, they always had a stem to land with; and they did not carry sails. The boat at Nydam was only intended for rowing, and no traces of any mast have been found; the oars were of the same shape as those now in use, and nearly 12 feet long. On one side of the boat the rudder was found, which is narrower and more like an oar than those of the present day. The rudders of the most ancient period, and far into mediæval times, were fastened on the right side of the stern, and not in its middle as now, which side is yet called starboard (steerboard).

In 1867 was found, in a mound at Tune, in Smaalenene, Norway, a Viking ship, at present in the Christiania Museum. The ship, which had been without deck, is built of oak, the planks being fastened to the frame by wooden bolts. The wood-work is finely done; the keel is one piece of wood, and entirely preserved. The boat is nearly 42 feet long, its width being about 12 feet; its height cannot have exceeded 4 feet 3 inches: both stem and stern are sharply pointed, and exactly alike. As the gunwale is wholly destroyed, the oar-

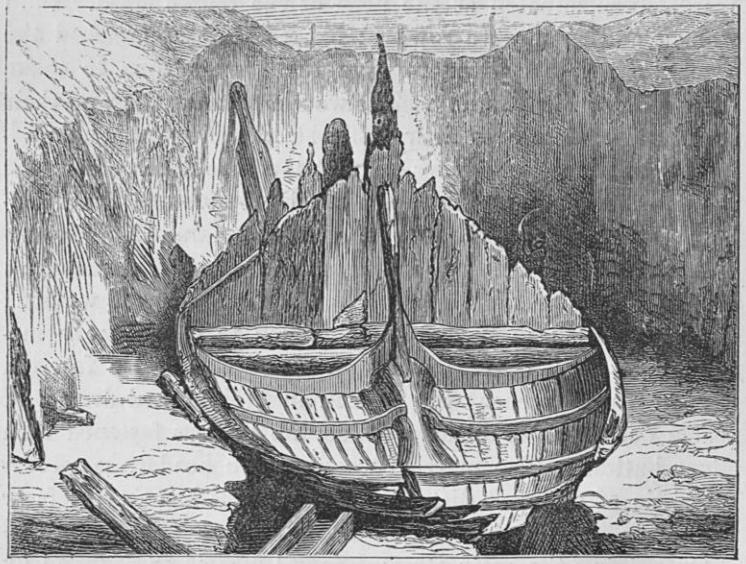
tholes are wanting, and the number of oars used is uncertain; but the vessel also carried sails, and of the mast, which was of fir, the lower part was still in its place. A little aft of the mast the rudder, resembling an oar, was placed; the appearance of the tiller shows, however, that it was fastened to the vessel on the side. In this ship was laid the unburned corpse of a chieftain, with three horses, swords, spears, shields, etc.



VIKING SHIP FOUND IN A GRAVE-MOUND AT TUNE.

On the shores of the Sande fjord, at the entrance of the Christiania fjord, a still more remarkable find was made in 1880. On the farm of Gökstad is the well-known Kong's Haug (King's Mound). In digging in this place a well-preserved ship from the Viking time was brought to light. Its hull is 76 feet long, and about 14 feet wide amidships; its perpendicular height cannot have much exceeded 5 feet; unlike the above-mentioned Tune boat, which it far exceeds in size, it is very long, narrow, and low. In the middle lies a log, both ends hewn out so as to form a fish's tail; it served to support the mast, of which a part is still standing in its place, while the upper part lies (cut off) in the ship. In and near this were found portions of two or three smaller boats, and also pieces of sails, rigging, oars, the rudder, which had been fastened on the side of the vessel, etc. The gunwales were completely covered with shields, the iron-mountings of which, as well as pieces of the shield-boards, painted in various colors, were preserved. Outside the vessel were the bones of three horses and a dog. When the Vikings lay still with their ships, especially

for the night, it was their custom to erect tents over them for their protection. On this vessel, as the repose of the chief was to last until Ragnarök (the end of time), a burial-chamber of wood had been constructed instead of the tent. This was situated aft of the mast, and formed like the roof of a dwelling. Unfortunately, the pressure of the mass of earth resting above had on one side broken the spars which supported the structure; it was also evident that the chamber had been subject to visitation; some one had dug in, cut open the ship's bottom, and, no doubt, plundered the grave of a large part of its contents; therefore not much was found there, but what there was proved of great interest: scattered unburned bones of the corpse, remains of magnificent clothes, of a stuff crocheted with silk and gold, of bridle and harness, mounted with fine plates of gilt bronze, among which were exceedingly well-worked pieces of great rarity. These finds are of the greatest value, as illustrating the accounts, by the old sagas, of the custom of burying the dead champion in his ship. It was, no doubt, chiefly in vessels like these that the Vikings executed their daring deeds.



REMAINS OF THE VESSEL AS FOUND AT GÖKSTAD.

CHAPTER XXXII.

Fairs in Scandinavia.—Fair in Lærdalsören.—Coming to the Fair by Boats.—A Crowded Place.—Costumes of the Lærdal District.—Articles of Merchandise.—How the People are Lodged at Fairs.—Popular Goods.—Good Times.—Height of the Fair.—A Jolly Crowd.—Love-making.—Accommodations.—Farewell Scenes.

All over Scandinavia fairs are held once or twice a year at places convenient for a great gathering of the people; merchants send goods for these occasions, and houses often are built specially for their accommodation. There are horse and cattle fairs, and others where goods and produce only are sold.

It was September. Numerous boats were pulling towards the land, on their way to the fair which was to take place at Lærdalsören, situated at the head of the Sogne fjord. Both women and men were rowing; but as they approached the shore each boat stopped to give the rowers time to make their toilet before landing. The women were putting on their skirts and bodices over their petticoats, combing their hair, adjusting new caps, or giving the last touch to their dress; for if there is anything as to which the bonde woman is particular, it is that she shall be tidy when she appears in public.

After landing, I found the narrow streets of Lærdalsören crowded with people, including a great number of women; these were clad in their best—the men in dark-blue home-spun cloth, with silver buttons on their vests, and a few old men in knee-breeches; the women in high-necked dresses of coarse dark blue or black woollen, the bodices fastened with silver buttons. The married women wore head-dresses characteristic of different districts, and the girls handkerchiefs or little caps.

On gaining the main street, I found myself surrounded by

friends, who welcomed me to Lærdal. The fair was to last three days, and everybody came either to buy or sell—the farmers getting chiefly dried codfish, herring, coarse salt for the cattle, flour, tea, coffee, sugar, etc., for the winter season; the women wearing apparel for themselves and their families.

There are several stores which remain open all the year round, filled with goods sent by the merchants of Bergen for sale on commission. It was a sort of opening of the season at the time of my visit. The new stocks for the year—the so-called latest styles—were exhibited in profusion; and among the articles intended to tempt the buyer were shawls, silk, woollen, and cotton handkerchiefs to wear on the head, cotton goods of different kinds, and a great array of umbrellas; for each woman seemed to take a personal pride in having one of these for her own. One or two jewellers came from Bergen, and their wares were the chief attraction for the women and maidens, and even for the men.

Almost all had brought their own food, stored in oval covered wooden boxes, often gaudily painted. They lodged in the houses around, each room crowded to the utmost—paying for lodgings and coffee, and some for meals, also. My friends introduced me to those who were from districts where I had not been. Soon it seemed as if I knew everybody in the place. One party would join me, and walk with me for awhile; then I would be seized upon and carried off by another group, and thus we met and separated many times during the day.

The buying mania seemed to possess all the good people about, and it finally seized me. I began to purchase right and left—a shawl here, an umbrella or silk handkerchief there—as I was walking with good friends and their daughters or sisters, until we came to a jeweller's stand, and then I was in for it. This was the time to show that I had not forgotten the many kindnesses I had received. My companions crowded around the glass show-cases wherein was displayed an assortment of silver spoons, chains, brooches of patterns to suit the taste of this part of the country, and large quantities of silver rings, many of which were ornamented with little golden hearts, or golden hands clasping each other; but the greatest

attractions were the gold rings. The ambition of a young girl was to possess one of these treasures—a plain gold ring being her chief adornment, to be worn on Sundays or a visit. There were also silver thimbles, some of which were gilded inside, and silver studs—the latter extensively worn by the men and women in this district; the women especially used them, and always managed to show them above their high-necked dresses. Some were set with large red carbuncles. Silver

A PIGE FROM BERGEN STIFT.

watches for the men were sold in considerable quantities. I bought first one thing and then another; this for Brita, and that for Ingeborg, Inger, Sigrid, Dorte, Anne, and at last for Ole, Lars, Mikkel. Here a present given at the fair has a greater value than on an ordinary occasion. I enjoyed the giving of these simple presents, and, like all the rest, I was bent upon having a merry time, and on making my friends happy.

The height of the fair seemed to be at about five P.M., when

people had had their dinner, and all felt happy. On every side invitations to visit were showered upon me. We became more and more friendly as the day advanced, and seven of us swore to be good friends to the end of our lives—and good friends we are, indeed, to this day.

While walking with two girls, friends of mine, a good-natured fellow, who evidently had taken a little more than he ought, made professions of affection to one of them. She said, laughingly, "You know that I do not love you," and recommended him "to go after Berit, for she was the one that he loved." Then she said, confidentially, "Paul, that fellow has made love to Berit for more than a year, and now he wants to make love to some other girl, but I am not to be the one." Similar innocent intimacies of young people of the same hamlet were continually before my eyes. Young men were seen walking with their arms around the waists of girls to whom they were not engaged—the daughter of a neighbor, or the sister of a friend—perhaps the beginning of what was to end in a wedding. Occasionally, however, a girl would send a young fellow off in a manner that showed the strength of her muscle, amidst peals of laughter from all those who witnessed his sudden discomfiture. Most of these farmers' daughters are twice as strong as a young lady from the city.

Towards night many of the men became rather lively, having drank a little too much, but none of the women were similarly affected; they would not have enjoyed the fair unless they had finished the day by being jolly. There was no quarrelling, no coarse language, and no swearing, for the Norwegian bönder do not curse.

At dark, the lamps having been lighted in the stores, the crowd continued to buy. By eight o'clock it was much diminished, and the women had almost entirely disappeared from the streets; and every house in the place, and on all the surrounding farms, was filled with people. The accommodations were restricted, but all were taken care of—three or four girls sleeping in one bed, and many of the men on the floor. At nine o'clock all had retired, and the fair was virtually ended.

In the house where I slept there was a host of my friends the peasants, and my room contained three beds, all of which were occupied, three fellows sleeping in each. A great many people left in the morning, and I felt lonely to see everybody going away. The same feeling that prompted me to be merry with the rest urged me now to depart, and nothing could have induced me to remain a day longer. Had I accepted the invitations I had received from friends, it would have kept me busy for several months.

When just ready to jump on my cariole, a fine lad gave me an old silver watch-chain; one girl came to give me a silver ring, with two gold hands clasping each other, as a token of friendship, while another presented a little carved box, saying, "I have two brothers and sisters in America; the people are kind to them. Take this little box; it is mine by inheritance, and has been in the family for hundreds of years. Take it, Paul, as a *minde* (token of remembrance) from me." And she added, "When you go to America, try to see my brothers and sisters, and say to them that God has taken care of us all; that father is getting old, but that mother is well: tell them never to forget God, and to love him as they did in old Norway."

CHAPTER XXXIII.

A Superb Highway.—Entrance to Lærdal.—The Lysne Portal.—The Defile of Galderne.—Abundance of Salmon.—The Farm of Husum.—Old Roar Halvorsen.—How Family Names are Inherited.—Independence of the People.—How a Farm passes from Father to Son.—A Touching Family Scene.—The Food of Rural Districts.—The Ancient Church of Borgund.—Farewell to Husum and Lærdal.

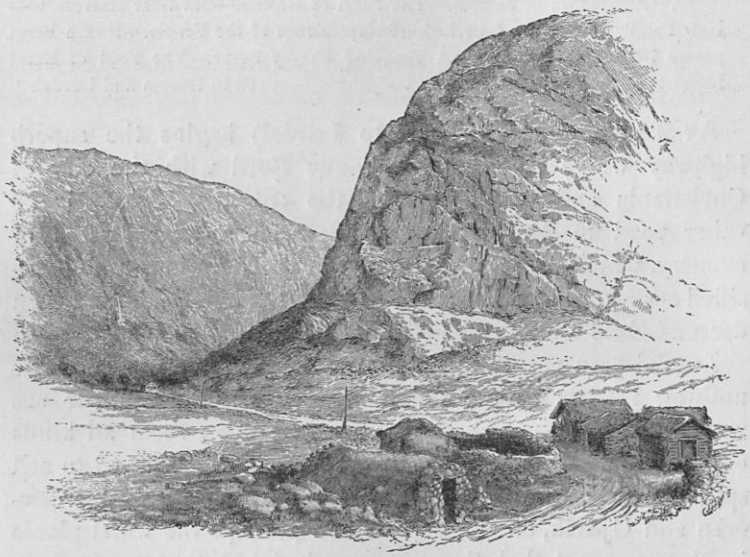
At Lærdalsören (entrance to Lærdal) begins the superb highway which connects the Sogne fjord with the city of Christiania and other parts of the country. There is no other road in Norway, traversing such a long stretch of country, which passes in the midst of such glorious and diversified scenery. One branch goes over the Filefjelds, and then descends into Valders, the other into Hallingdal.

Lærdalsören seems to be the rendezvous for the good-for-nothing fellows of the neighborhood, who in summer are watching for tourists, and who practise upon them all kinds of extortion. Besides, there are several stores licensed to sell spirits, which attract a large class of drunkards. Lærdalsören and Gjövik, on the Mjösen, are perhaps the worst places in Norway; not that they are very bad, but they contrast so much with other quiet hamlets.

Majestic mountains flank the Lærdal Valley at its entrance. A few farms are seen here and there, and some stone huts in the midst of a barren soil. At the Lysne portal the terraces attain a height of five hundred feet.

Beyond Lysne the valley becomes narrow and the scenery wilder. Straggling farms are passed, whose dark buildings, with their earth-covered roofs, are in unison with the sombre landscape. Farther up, the Lærdal seems to be closed by mountains, and one reaches the narrow defile of Galderne. Here the old road, by far the more picturesque, ascends a very steep hill, from which is a fine view of the lower part

of the gorge. The new one, blasted in many places out of the rocks, runs at the base of the hills by the river-side. On the right bank of the stream are remains of a still older highway. How difficult it is in winter to descend the hills by the narrow paths that lead from them, when ice covers the rocks and bars the way in many places, I know from experience. For safety, one must attach to the shoe a special heel called *isbrodder*, with peculiar nails, which grip into the ice.



LYSNE PORTAL.

The river here foams in its rocky bed, and a fall prevents the salmon from ascending higher. In the deep pool at its base I counted twenty-three lying motionless on the gravelly and sandy bottom.

The salmon make their appearance in the rivers of Southern Norway in May, and in the north in June. They commence breeding in the latter part of September and up to November, and remain in the streams till December. They spawn in the beds of the pools, the eggs being hatched in sixty to ninety days. When four months old they are four or five inches long; they do not attain their full size until

the age of six years. The greatest enemies of the full-grown fish are the seal and otter; of the young ones, the duck and gull, and, in the Baltic, the pike.

Beyond this pass the valley widens, containing several farms. I alighted at one called Husum, and was welcomed by old Roar Halvorsen and his family, which consisted of Roar Roarsen, his eldest son, Haagen, Iver, Halvor, and Pehr, and two daughters, Sönneva, married to the owner of a neighboring farm, and Sigrid, who was single. The way of keeping family names is very peculiar among the bönder of Norway and Sweden. For instance, the head of the family of Husum is Roar Halvorsen (Roar, the son of Halvor); the eldest son, as we have seen, is called Roar Roarsen; and all the other children, whatever their first names may be, have added the name of Roarsen or Roar's datter; then the eldest grandson's name goes back to that of the grandfather, and by this method the family name is preserved for generations. Good-hearted, indeed, was old Roar, and many a pleasant chat and many a warm welcome have I had in his house. My acquaintance with Husum began curiously. Approaching the farm, I noticed numerous vehicles in the yard; people were busy packing bedding, crockery, etc.; others were carrying away chairs and benches. A *begravelse* (a kind of wake) had taken place, for the wife of the owner had been buried three days before. I mistook it for a wedding-feast.

Husum is a comfortable farm, and also a post-station, having a white-painted house for guests, and two other dwellings for the family. It is a good place, but expensive to work, for much of the grass has to be collected on the abrupt and rugged sides of the hills overhanging the valley. During harvest time the people wear soft shoes without soles, in which their feet can better accommodate themselves to the inequalities of the ground.

The rural population is very independent. If girls accept situations, it is because the farms of their parents are too small to support a large family, and some of them desire to make a little money; it is quite common for them to take service for a season, and then return to the homestead. One reason why

servants are treated with such kindness is that they generally belong to the same district or parish, where all the people know each other, and where all the children go to school together. Nothing is put under lock and key, and any indication of distrust of the integrity of the dependents would be resented at once; indelible disgrace is attached to any dishonest act. This conscientiousness of servants impressed me during my travels in the country; it is probably due to the patriarchal customs under which they live. They are often the friends or relatives of the family in which they serve, and every member of the household performs a share of the work.

The wonder at the independent and manly character of the rural population of Scandinavia ceases when we consider the large number of owners of the soil. The Swedish law recognizes no limit for the division of the land, except that no farm must exist that does not support at least three able-bodied persons.

The number of farms in Sweden amount to 258,650.

Under 5 acres	65,000
Between 5 and 50 acres	165,000
" 50 " 250 "	26,000
Over 250 acres	2,650

The number of domestic animals are—horses, 455,900; cattle, 2,181,400; sheep, 1,695,400; goats, 121,800; swine, 421,800.

We see, therefore, that there is a farm for every seventeen inhabitants; a head of cattle for every two, and one horse for every ten persons.

The number of farms in Norway in 1865 was 147,000, of which 131,800 were cultivated by their owners, while the remainder were rented; being one for every twelve persons. Of domestic animals there were kept, in the above year—horses, 149,167; cattle, 953,036; sheep, 1,705,394; goats, 290,985; swine, 96,166.

In Lærdal and Voss, and in some parts of Norway, the young people often prefer to sleep in winter in the cow-house, in which, upon a platform raised a few feet above the floor, and accessible by a ladder, may be found one or more beds.

Generally the place is kept scrupulously clean, and looks almost like a bedroom. There is usually a window or two to allow a circulation of air during the day, and prevent dampness. I must confess that sometimes I was fond of spending a night in such a room, in which the temperature is even, and not unhealthy.

On my visit to Husum an important event took place, when, according to immemorial custom, the farm was to come into the possession of the eldest son. The dinner being ready, all the members of the family came in and seated themselves around the board, the father taking, as is customary, the head of the table. I noticed an unusual air of soberness on the faces of those present, though the people are generally sedate at meals. All at once Roar, who was not seated, came to his father and said, "Father, you are getting old; let me take your place." "Oh no, my son," was the answer, "I am not too old to work; it is not yet time; wait awhile." Then, with an entreating look, Roar said, "Oh, father, all your children and myself are often sorry to see you look so tired when the day's labor is over; the work of the farm is too much for you; it is time for you to rest, and do nothing. Rest in your old age. Oh, let me take your place at the head of the table."

All the faces were now extremely sober, and tears were seen in many eyes. "Not yet, my son." "Oh yes, father." Then said the whole family, "Now it is time for you to rest."

It was hard for the sturdy old bonde, who had been chief so long, to give up; but he rose, and Roar took his place, and was then the master. His father henceforth would have nothing to do, was to live in a comfortable house, and to receive yearly a stipulated amount of grain or flour, potatoes, milk, cheese, butter, meat, etc.

Roar, the eldest son, is a good friend of mine; intelligent, a subscriber to several newspapers, kind-hearted, and an excellent husband. Sigrid, his wife, is industrious, always busy attending to her numerous household duties; these in summer, when many travellers stop, either for the night or for a meal, are by no means light.

Almost every large Norwegian or Swedish farm has a num-

ber of *plads* or *torp*, small places, with houses and some good land attached, which are rented on certain conditions. The Norwegians call the men who have these *husmænd*, the Swedes *torpare*. They have to pay a stipulated sum yearly, or most generally have to work a number of days in the year, as payment for lodgings and the land cultivated, the products of which belong to them.

With the month of October comes the slaughtering time. The housewife then has a great deal to do in preparing sausages and bacon to last until the following autumn. Meat has to be salted, dried, or smoked.* *Mölja*, made of blood mixed with flour, is put up in large quantities, preserved either in bladders or in cakes; when used, it is either boiled or fried.

The Norwegians have several kinds of bread. *Fladbröd* is made from an unfermented dough of barley and oat-meal, often mixed with pea-flour. The dough is rolled into large circular loaves, having a diameter of two to three feet, and of a thickness of heavy paper or thin pasteboard, and is then baked over a slow fire on an iron plate. In the dough are often kneaded boiled potatoes. This bread will keep for a year or more. It is much thinner than the Swedish bread, and is brittle. *Lefse* is made in the same manner as the fladbröd, but is only half baked, and is then folded together, generally four times. The fladbröd is kept in the larder in large cylindrical heaps, often for half a year and longer; the lefse, with its convenient form, is used on journeys.

Gröd (a porridge) is the daily dish of the Norwegian peasant. It is made from barley-meal, although oat-meal and sometimes also rye-meal are used. After the gröd has been taken from the fire and has ceased boiling, more meal is sometimes added to give it greater consistency; it is then called *nævergraut*, and is used on journeys, or when the peasants are at work at some distance from the farm. The gröd is generally eaten with skimmed milk, which is preferred after it has become sour. Potatoes are a great staple of food; they thrive well, and are

* *Spegekjöd* is made by slightly salting and then drying the meat—generally legs or shoulders of mutton.

of good quality; the people well know how to cook them. Fish is used extensively; salt herring is eaten with potatoes, as also is dried codfish, soaked the night before it is cooked. On the coast fresh fish is largely consumed.

MAKING FLAT BREAD.

Butter and cheese are much used as food. There are three peculiar kinds of cheese: 1. The *mysost* is made from the whey remaining from the common cheese, boiled till the water is evaporated; then it is shaped into square cakes, weighing from two to five pounds; the color is dark brown. It must stand at least a day before it is fit to be eaten. It is made only at the sæters, where wood is plentiful, for it requires a great deal of fuel. It is eaten in thin slices, and with bread and butter; women and children are especially fond of it.

The best is from goat's milk. It can hardly be called a cheese, as it consists chiefly of sugar of milk. 2. The *gammelost*, made from sour skimmed milk, is a fermented round cheese, which is kept for months in the cellar. 3. *Pultost* is also a fermented cheese, mixed with caraway-seeds, not formed into cakes, but preserved in wooden tubs.

A short distance above Husum is another fine defile, Vindhellen. The new road here also follows the river, and is blasted

BORGUND CHURCH.

in several places from the rocks. Beyond Vindhellen the valley widens again, and one comes in sight of several farms and the old stave church of Borgund, one of the most interesting in Norway. This curious church, and that of Hitterdal, belong

to the oldest style of ecclesiastical architecture in the country; that of Borgund dates probably from the time of St. Olaf or his son, Magnus. Its dark color and peculiar shape attract at once the attention of the stranger. Its steeple is surmounted by a cock, and the shingled roofs are ornamented with dragons' heads and crosses. A low, open gallery on the ground protects one part of the edifice, and its entrances are covered by porches. The small interior, with its curious carvings and arrangements, is almost as odd as the exterior. A space of about twenty-four feet square forms the main area, and is surrounded by ten pillars, behind which are benches for the congregation. The only stone object is the ancient baptismal font. The new church, built for the accommodation of the people — for the congregation has become too large to worship in the old one—is so near that it spoils the effect of the latter.

The days passed pleasantly in Lærdal with its kindly inhabitants, among whom were a number of good friends who were always glad to see me, and with whom I sometimes correspond. Before leaving Husum, Roar's wife presented me with some underclothing, woven at home, of white vadmal, saying, "Paul, the weather is cold in Norway in winter, and I have made these for you to wear;" at the same time giving me a photograph in which herself, her husband, and the children were represented. After a cheering good-bye, and promises that we would write to each other, I left Husum, and continued my journey.

CHAPTER XXXIV.

The Farm of Nystuen.—A House of Refuge.—Life at Nystuen.—Descent into Valders.—Valders Costume.—Hospitality in Vang.—Etiquette among the Bönder.—Character of the Norwegian Bonde.—Cleverness of the Bönder.—Sacred Rites of Hospitality.—How I came to Vang.—A Storthingsmand.—The Church of Vang.—A Model Clergyman.—Labors of the Parish Pastor.—Haugen Farm.—How Guests are treated.—Birth of a Child at Haugen.—Nertröst Farm.—A Christening.—Dancing in Valders.—Bachelor Friends.

At a distance of twenty-four miles from the church of Borgund, after a romantic drive, I came to the mountain farm and post-station of Nystuen, situated on the lonely shores of the Utrovand, 3162 feet above the level of the sea, and near the highest point on the route. Welcome, indeed, is the place in winter, when, cold and hungry, the traveller reaches its hospitable roof, and gets a hearty meal, a glass of wine, an excellent cup of coffee, and a very comfortable bed. At this time of the year the crowd of tourists has disappeared, and one may enjoy from the windows of his warm room the frozen lake and wintry landscape, with its cloudless sky by day and its twinkling stars by night; or he may, perchance, watch a driving snow-storm, and congratulate himself on his pleasant quarters; or listen to the whistling winds, which at times make the houses tremble, and which might overthrow them were they not built parallel to the valley and the course of the tempest.

The summers here are very short; grain cannot ripen, though grass is abundant, and there is grazing-land enough for pasturage, and a crop of hay for winter use of many cows and horses. Their long and severe winters are not lonely, for, as a rule, the people in such out-of-the-way places have large families, and their children and grandchildren make quite a colony. Old Knut Nystuen was the progenitor of a large

number of descendants. He has now given up the station to his son, and occupies with his worthy spouse a house in which there are some rooms up-stairs for guests.

They have their enjoyments, and idleness is unknown. The females weave, spin, and knit; the men fish and hunt, and attend to the farm-work, getting the wood and hay sometimes from long distances.

From Nystuen the road eastward descends rapidly into Valders, in the midst of a gloomy scenery, enlivened by the river and birch-clad woods, and a few farms. At a distance of about nine miles the head of Vangs Mjösen is reached, 1494 feet above the sea. Sombre indeed is the landscape which encircles its water.

There are few parishes in Scandinavia so pleasantly remembered by me as that of Vang. The farms Opdal, Tune, Nertröst, Kvale, Haugen, Ellingsbö, Bö, Söyne, Kattevold, Baggethun, Kvam, Lene, Sparstad, Nordland, and others will never be forgotten. Each farm in Scandinavia has its name; sometimes these have been divided either by inheritance or other causes, and each owner builds a home on his part, but all bear the same title. Where the soil is good there may be a number at short distances from each other connected by rough, narrow roads, passable by carts.

Valders is one of the most romantic inland districts of Norway. The ever-changing panorama, which in the north is weird, becomes more cheerful as one descends into Slidre and Aurdal; in the latter some of the views are exquisite, especially when the road passes the eastern slope of the Tonsaasen by a gradual ascent of over seven miles. The northern part of Valders is poor, for, as in many other parts of Norway, stones are plentiful, good soil scarce, and families large; but the mountain pastures are rich, and the inhabitants derive a modest revenue from the produce of their dairies. Whenever I came to Vang, the only thing that troubled me was to decide at which farm I should stop first, for I did not want to give cause for jealousy; therefore, that they might feel that I loved them all, I had to make each a visit.

Many are the pleasant weeks I have spent in this Arcadian

spot, where the people seemed to vie with each other as to who should render their friend Paul most happy; nothing was ever too good for him. No matter at what time he came, day or night, he was always welcome; the best of their cheer was put before him. I could not make a short visit anywhere, and be allowed to depart without taking a draught of milk, a cup of coffee, a little dram of bränvin, or eating something. It was impossible to decline; and many a time, unknown to these good people, did I feel unwell from too much of their delicious coffee—sometimes drinking ten or fifteen cups a day with as many meals.

The stiff leather knee breeches are getting out of fashion, and the costume consists of a vadmal suit—a jacket, waistcoat with silver buttons, and pantaloons. The fashionable parts of the toilet are the woollen scarf and the round felt hat, the latter being worn in the house or at the dance, under the idea that it is nobby. The women wear the usual vadmal dresses, or others of lighter material, and a colored kerchief on their heads.

One of the peculiarities of the Norwegian farmer is that etiquette demands that a friend when visiting him shall ignore that the preparations made on his arrival are on his account. The guest has no sooner seated himself than coffee is roasted, the coffee-pot put on the fire, and food prepared. When he sees that everything is nearly ready, he gets up and says, "Good-bye;" upon which he is entreated to remain, and, after a little resistance on his part, is led up-stairs or into the next room. The coffee-cups are always filled to overflowing, for otherwise it would appear stingy.

Another custom that amused me greatly is when milk or bränvin is offered; the guest at first refuses, saying, "Do not waste it on me." The host insists on his drinking; then the guest sips, and returns the bowl or glass, saying, "It is too much." Another remonstrance takes place, and then, the third time, he swallows the contents of the glass.

The Norwegian bonde is manly, self-possessed, and brave. Beneath his rough exterior he has a most kindly heart; outwardly cold, but easily moved to the other extreme, kind to

his family, and merciful to his beast, he must be known to be appreciated. He is truly and honestly pious; his religious feelings are deep, and have been cultivated from his earliest boyhood. In rare instances fanaticism may blind his better nature and make of him a bigot.

In the character of both men and women is a vein of quietness and pensiveness—the result, no doubt, of the stern nature that surrounds them. Parents are kind and gentle to their children, and I cannot recall an instance when I heard coarse language used to them or saw them beaten. Members of families are affectionate to each other, although they are reserved. Quarrels are very rare; even on the commonest farm I have never witnessed scenes of violence between husband and wife.

The farmers are very clever at all kinds of handicraft. When one wants to build a house, or make any addition to his farm, he goes to the forest and cuts the trees, and is his own carpenter. He may also be a tanner, harness-maker, blacksmith, shoemaker, and miller; along the coast he can build boats and ships, and is an expert fisherman; he is also a maker of musical instruments and furniture, a goldsmith and jeweller. As a hunter in the mountains, he pursues the bear, the wild reindeer, or the ptarmigan.

There is no country in Europe where the rites of hospitality are held more sacred than among the Scandinavians. The traveller is surprised and delighted to see everywhere this beautiful trait in the character of the people. Even the poor are never allowed to depart from a house without being offered something to eat, and in such a manner as not to hurt their feeling of pride. The stranger all over the country is reminded of these words of the elder Edda:

> The one who comes as a guest
> Needs water, a towel, and hospitality;
> A friendly disposition let him experience;
> Talk and answer let him get.

The way I came to Vang for the first time happened in this manner. I was travelling on one of the steamers plying between Bergen and the Sogne fjord. As usual, I had made myself one of the people, chatting with the bönder. While

at dinner with several of them I noticed a man watching us, with now and then a contented smile passing over his face. As I learned afterwards from him, he was delighted to see a stranger so free, and apparently so happy in the society of people who were, like himself, bönder. At the dessert he came and inquired if I was not Paul Du Chaillu; and, on an affirmative answer, said his name was Nils Tune, from Vang, in Valders; that he was a member of the Storthing, and added that I would be welcome at his farm. He understood that I came to study the home life of the Scandinavians: he said that he would introduce me to his neighbors, and that he had no doubt that I would like the people of Valders. I accepted his invitation, and, soon after my arrival, I found that he had spoken well of me. Wherever I went, I received from the first a kind reception.

Nils Tune had been elected to the Storthing by the people of Valders. In Norway the rural constituencies are the liberals, and those of the cities the conservatives. There is no doubt that a bitter feeling exists between the two. This I gathered in conversation with the bönder, many of whom believe that they are despised by the Herrer. I always tried, when they said so to me, to make them think they were mistaken, but it was of no avail. One day Nils, when speaking on the subject, said, with eyes flaming with anger, "Yes, Paul, many people in the cities believe that we are no better than cattle." Upon which I remonstrated, and mentioned gentlemen in Christiania who he knew did not despise the bönder.

Between the high-road and Vangs-mjösen is the old wooden church, and near it the parsonage, the latter with large, comfortable buildings. A whole-souled man was Prest Konow. So generous was he to the poor of his parish that the farm belonging to the living of the church could not support him and his family. Happily he had a rich father in Bergen, who now and then sent him money, and which was no sooner received than a great part of it was spent in relieving the distress of the poor. He gave in a quiet way—following, in this respect, the principle of the religion he professed; but now

and then an over-grateful man with a large family, or a poor widow, could not refrain from telling me what the good pastor had done for them, repenting afterwards for their weakness, knowing that they would be scolded for having told of the kind deed which had been done in secret. It is no sinecure to be a clergyman in some of the districts of Norway, either inland or by the sea. Some of the parishes are very extensive, and occupy an almost uninhabited country; the hamlets being far apart, of course they cannot support a pastor for each church. Chapels, therefore, are often built at a great distance from the parish church, and can only be reached by bridle-paths or narrow mountain-roads. A schedule of time for the year designates the date of service in each place; and in sunshine, rain or snow, the clergyman, on horseback or in his cariole, must reach the church—wet, overcome by the heat, or possibly half frozen. It is no unusual thing for one pastor to have under his charge three or four churches, and services are held in them only once in three or four weeks, and sometimes not more than four times a year. When the churches are in the neighborhood of a fjord he has to go in a boat, often in very stormy weather. The Norwegian clergymen are thoroughly educated; many of them speak one or two foreign languages, one of which is usually English. They are hospitable and kind-hearted; and in many poor districts they are the only examples of a higher civilization, the parsonage being the place where cleanliness can be learned. There is no class in which black sheep cannot be found; but, as a rule, the Scandinavian clergy are loved and respected.

The worthy pastor of Vang was a staunch conservative, and did not agree well with the radical Storthingsman, Nils Tune, who was most advanced in his politics, and advocated progress and the abolition of laws which he thought were obsolete, or ought to be repealed, some of these affecting the privileges of the Lutheran Church.

My visits to the parsonage were most enjoyable, but the generous man many times would have had me stay longer; he could not understand how I could rough it among the farmers, and partake of their fare. Among my many friends

were the people of Haugen and Nertröst. The dwelling-house at Haugen had an upper story, reached from the porch by a steep ladder-like staircase, consisting of a large and two small rooms. This part of the building was, as is always the case, scrupulously clean, and reserved for the use of guests. The lower story was arranged in the same manner, with the exception that one of the small rooms was a kitchen, with an open fireplace in one corner. The large rooms down and up stairs were heated by stoves, which are used extensively in Vang, for birch-trees are scarce. Thomas Thomasson and his wife, Guri, could never do enough for me; and his dear old father, whose kind heart and honesty could be read in his face, thought that there was nothing too good for me in Vang. Three children, a maid and a man servant, completed the household. Adjoining the house was a little garden, with currant-bushes and a few patches of turnips.

It is the custom that the guest shall eat alone. In the room used on such occasions the table is set with a fine white cloth, and silver forks and spoons; after the meal is served, the wife, who waits upon him, leaves him alone, coming once or twice during the repast to urge him to eat more. For one intending to spend a few years in Scandinavia, the prospect of this solitary way of eating was not very cheerful; so, on coming to a farm, after allowing a day or two for such ceremonious proceedings, I invariably insisted on breaking this rule, and eating on the plain board with the family and farm hands, to the great dismay of the matron of the house. When this point had been gained, there were others almost as difficult to obtain—that of making them give up the silver spoon put before me for a wooden one, as used by the family. Farmers take great pride in such rude spoons, each member of the family having his own, with his or her initials cut on the handle. The next was that I should be allowed to take a piece of flat bread instead of a plate, if these were not used; to put my spoon into the large dish of gröt like the others, and to help myself to the sour milk in the same manner. When the latter was too sour, the wife always insisted that I should have sweet milk, and this I did not refuse.

One night at Haugen, while in profound slumber, I found myself suddenly awakened by a rather rough shaking, and, opening my eyes, I saw friend Thomas with a candle in one hand and a bottle, with two small glasses, in the other. "Paul," said he, "you may have heard my wife cry out a little while ago; she has just given birth to a fine infant." Without saying another word, he put the candle on the table, and, filling two small glasses, added, "Let us celebrate the event, and you must empty the glass;" to refuse would have been the height of impropriety, and have shown a great lack of friendship; so I wished long life to the new-born, and speedy recovery to the wife.

It is the custom on the birth of a child for the wife of every neighbor to cook a dish of *flödegröd* (this is porridge, cooked with cream instead of milk, or a rice pudding), and bring it to the convalescent; there is a good deal of rivalry among the matrons, who try to outdo each other in the quality and size of the dish.

Nertröst was one of the best farms in Vang. There were two houses, one of which was for guests, and for keeping the clothes of the family. John Nertröst was a good-looking fellow, a fine specimen of a Valders man, kind, upright, and active. His wife, Sigrid, daughter of a bonde living a few miles down the valley, was a pattern house-keeper, and, like her husband, loved me. They could never do enough for me; the sheepskins on my bed were clean and white, and soft as down; they are excellent protectors against rheumatism, of which I never had the slightest symptoms. No matter how short were my walks, I must be hungry on my return. Early in the morning a cup of coffee was brought to me while in bed. Any time I required a horse it was ready; if I wanted to go anywhere, good John was always willing to take me.

One day there was a christening at Nertröst, as there had been an increase in the family. This was followed by a feast; and I had been especially requested several days before not to go visiting far away, for I must be on hand. The pastor and his wife on such occasions are always invited, also members of the respective families and friends. A pleasant time we had

of it; the best crockery, and the silver forks and spoons were brought out; meat, cakes, and puddings were abundant.

The people of Valders are great dancers, and expert in the *Halling*, the great feat of which consists in now and then touching with one foot the ceiling, which is, as a rule, nine feet from the floor. One of the most characteristic national dances is the spring dance, a part of which is for the girl to hold the end of the uplifted fingers of her partner and then pirouette around with such rapidity that her dress becomes inflated like a balloon, rising sometimes to the knees, when, by a dexterous motion of her hand, she brings her skirt down. When one goes to a party he must make up his mind to perspire freely even without dancing. The lower room is used as the dancing-hall, which is always crowded to suffocation, for there is a general invitation. All the young folks, and even old, enjoy the fun. A lamp raised above danger of contact dimly lights the place; chairs, table, and benches have been taken away; the fiddler stands in a corner. After awhile, in order to urge him to play with more zest, the company put in his hat a few coppers, and then another dance takes place. The crowd is generally so great that there is hardly space to move, and the atmosphere becomes so intolerable that the room has to be partially cleared. The boys sometimes hide a bottle of bränvin, and invite their friends to have a drink on the sly. The festivities ordinarily last till the early hours of morning.

Among my best bachelor friends were Ole, Lars, and John. When in Vang, the good fellows would have felt unhappy if they had passed a day without meeting me. They were determined that Paul should not spend a lonely day in their hamlet, and were always making plans for my entertainment—at one time a dinner, or a girls' or boys' supper was given at their own farm for me, or they caused their relatives to invite me to their houses. Sometimes we would row over to the other side of the lake, spend a day or two, and have a good time among their friends, who always prepared a feast for me. The three even went so far as to bother the clergyman a whole winter, simply because they wished to speak to me in English on my return the following year.

Sorrow found its way into the hamlet of Vang, and a day of mourning came to its people, for death had laid his cold hand upon an old and much-respected widow of the place.

Funerals as well as weddings are generally appointed for Sunday. It is the custom to keep the body for a number of days before interment. As the time for the performance of the last sacred rites approached, preparations were made at the farm of the deceased by her eldest son for entertaining the mourners and invited guests during the begravelse, which was to last three days, on a scale commensurate with the station and wealth of the family.

The day before the burial, relatives and those who lived far away arrived; the utmost decorum prevailed, and food was eaten in silence. Those who are invited usually bring or send contributions of provisions; and, as the crockery and utensils of the household are not sufficient on such an occasion, the neighbors lend theirs. On the morning of the funeral the house was crowded with people; every one had a solemn face, and their conversation was in a low whisper. When the hour of departure arrived, all took a last look at the deceased; then the coffin (of plain boards) was nailed, and put on a sledge, though there was no snow on the ground; over it was spread a fine home-woven woollen covering. Numerous vehicles followed in procession, as the farmers always ride on such an occasion as a mark of respect. On reaching the church-yard, which was about half a mile distant, the clergyman was in waiting; he read the burial-service, and threw three shovelfuls of earth over the coffin, which was then lowered into the grave, each one present throwing some earth upon it; the pit was then filled in the midst of deep silence.

All then returned to the house, which in the mean time had undergone a complete transformation; long tables, with white table-cloths, were set, loaded with eatables. First, the male portion of the guests were invited to take a little bränvin; a blessing was asked as the guests stood before their respective seats, after which the repast began. Long before dark many of the company were hilarious, for they had drank much. Everything was as plentiful as at a joyful feast, and many had

no sleep. The next day was passed in eating and drinking, and a stranger might have thought that it was a wedding festival instead of a begravelse.

One good farmer suggested that in America we must have a grand time on such occasions, as the people are so rich. When I told him that we ate or drank nothing, but went directly home after the burial, he said, "Do I understand that they are so stingy in your country?" The idea of people going to a funeral, and having nothing there to eat or drink, struck him as savoring of meanness, and he turned his back on me in disgust.

Vivid, indeed, is the remembrance of my last visit to Vang, and especially of the two days preceding my departure. I had to see all my friends, even across the lake, and to eat wherever I made a call. On the last evening I was perfectly exhausted, for I had partaken of thirty meals in two days, and drank thirty-four large cups of coffee, and I had to skål many times besides. There was no escape; I had eaten with their neighbors, why should I not do the same with them? Was I not to go on my journey across the Atlantic? Would it not be a long time before they would see me again?

As I took leave, the mother or daughters would hand me a pair of woollen stockings, gloves, mittens, or cuffs, and say, "Paul, we have made these for you—keep them to remember us by;" often my initials or their own were embroidered upon them. Others would give me a silver ring, brooch, or other little token of friendship. Some old matrons were more practical, saying, "Paul, take this cheese and sausage." Expostulation was vain; the answer was, "America is far away, and you may be hungry on the road."

I was touched deeply by the feelings of sorrow caused by my departure. I could see tears in their eyes, and sad faces spoke more than words. "Paul," many would say, "do not forget us; write to us from America. You shall always be most welcome;" whispering the parting words, "God be with you over the wide ocean," as they pressed my hands. When I left the hamlet John was not at home, but Ole and Lars accompanied me for some distance with almost silent sadness.

It is now many months since I have heard from Vang. One thing or another has prevented my writing; but the dear friends I have there are often remembered; their kindly faces are still before me, and their cheers of welcome ring yet in my ears. The memory of the happy days spent in their midst will always be cherished. Manly lads and fair maidens have wedded, bashful young girls have become comely damsels; the wheel of time has brought many changes, both happy and sorrowful. The good länsman Wangensten, of Kvam, is dead; most touching was the last letter to me which he dictated to his son, when he had hardly strength to sign his name. Uncomplainingly he spoke of his sufferings and approaching end, and added, "Though I shall be missing when you return to Vang, do not fail to come to Kvam; you will be welcomed by my family." Nils Tune has also gone, and over his grave the rancor of political strife has been forgotten and forgiven: he was honest and incorruptible.

Dearly do I love to read the letters from my friends of Vang. Husbands, wives, daughters, and sons write to me affectionately, and none are more appreciated than the letters of the children. Sigrid Nertröst, the wife of John, writes, "Little Berit (their daughter) cries because she cannot write to Paul." Little Anna Haugen, in a letter of her father, sends a tiny heart and a ring made of glass pearls. Ole, who has since been married, writes, "During Christmas we have had many gatherings, drank toasts to our friend Paul, and John has composed two verses which we sang." These I give:

Now at Christmas there is joy
In the North, as in the South,
At the Christmas-tree and board.
Here the toast to Paul is drained
To the bottom, in northern custom.

A toast for Paul Du Chaillu:
Give him a loving maiden,
That his life may flourish finely;
A happy New-year as we close,
Certainly we wish for that—
Lars, Ole, John, and all, young and old.

CHAPTER XXXV.

Southern Norway.—A Long Highway.—The Farming Population.—Fine Farms.—Comfortable Houses.—Cities of Norway.—How the Public Peace is kept.—Pious Excursionists.—A Judge's Home.—Taking an Oath.—Sætersdal.—A Tall People.—Costume in Sætersdal.—Old Stabburs in Osse.—Character of the People of Sætersdal.—Valle.—Paul Paulsen.

Norway at its southern end forms a bold mountainous promontory, about 200 miles wide at its widest part, and 125 miles in length, terminating at Lindesnæs, in lat. 57° 59′. This vast territory is bounded on the west by the North Sea, and on the south and east by the Skager Rack, whose inner extremity, so to speak, is the Christiania fjord, which runs from north to south. The fjords have not the grandeur of those farther north. The only level lands on the coast of Norway, Listerland, Dalarne, and Jæderen, are found here. At Listerland three lofty light-houses are in close proximity to each other, and have been built in such a position that to sight them separately is a sign of danger. A high-road skirts the coast from Christiania to Cape Tungnæs, a few miles north of Stavanger, a distance of 500 miles, where the Bukne fjord prevents farther progress. This is a continuation of the highway which runs along the shores of Sweden and Norway from Haparanda to Christiania, a distance of about 2000 miles. There are numerous rivers, upon whose waters an immense number of logs are floated, for large forests are very common.

The valleys contain some of the best agricultural districts of Norway, whose farming population is very unlike what we have described in the mountains. On the many comfortable farms nearly all the houses are painted white, with old-fashioned Dutch red-tiled roofs. Pianos, books, and periodicals

show the culture of the people, whose dwellings are surrounded by orchards and gardens; charming views of sea and coun-

FARM OF HOF, IN AKER.

try are seen all the way from Christiania to Drammen, and, in fact, along the whole coast the drives are extremely beautiful. The picture representing Hof gives a good idea of the houses of a substantial farm.

On a Sunday the farmers go to church with their families in different fancy carriages and carioles. The men usually wear high silk hats, or felts with broad brims, gray or black in color; in summer they wear linen dusters. The women, in their hats, bonnets, shawls, and jackets, are dressed like farmers' wives in England or the United States. After church the people hold their weekly gossip meetings.

Norway is a peculiar country, in that its cities and large towns, with few exceptions, are situated on the coast. These are chiefly interested in the fisheries and the timber trade. Those devoted to the lumber business are built on or near the mouths of rivers and streams which rise among and flow through the part of the country where vast forests are found; while those engaged in the fisheries have been located in the most advantageous geographical position. Some of the towns are rising in importance; others are standing still, or in their decadence, as the herrings leave this or that part of the coast.

Most of these are built to suit the irregularities of the rock-bound shore or stony hills which enclose them on all sides, and the houses are perched on every jutting rock, producing a singular effect. The cleanness of the streets is remarkable; the houses are of wood and well painted. One misses the pleasure-grounds of the Swedish towns. There are no manufacturing centres, neither great iron industries in Norway. Some of these towns, though small, are very rich; some of their merchants are millionnaires; they own large numbers of vessels, which are sent to every part of the world: the carrying-trade of Norway is very extensive. The little town which impressed me the most for its activity was Arendal. A few years before it had been destroyed by fire; wooden houses had been replaced by stuccoed brick, and the stores had windows of large plate-glass imported from France.

The public peace is kept by a very few policemen, for they are a law-abiding people, and ruffianism and rowdyism are unknown. The configuration of the country precludes the making of railways, except at such an immense cost that it would not be remunerative; but steam communication by water is ample.

Often during the summer months I have met on the steamers a crowd of persons called Läsare (pietists), who were looked upon by the quiet people as a kind of fanatical and emotional religionists. As they come on board they sing their hymns, which they keep up during the passage, on their way to or from some camp-meeting.

Knowing the hospitality of the people, it was my custom, when I saw a house which attracted my attention, to stop my horse before it and go in. I had, after a couple of hours, left Holmestrand, a picturesque village at the base of wooded cliffs, near the water, and had passed the hamlet of Sande, when I came to a fine house, and, alighting, entered the grounds. To my surprise, I was accosted by two young ladies dressed in the latest fashion. I saw at once they were not farmers' daughters, and excused myself for the unceremonious manner of my approach, and was in the act of retreating, when they begged me to stay.

The house into which I had intruded was the residence of a judge, who was summoned by one of the young ladies, when he gave me a greeting in English. He was somewhat elderly, thin and wiry, with a sunburnt face. He had just left the plough; for, although a man of learning in his profession, he was not above the doing of hard work on his farm.

In the course of conversation we spoke of the laws of the country, and I listened with great interest to the solemn oath administered to witnesses in Norway, and the impressive and elaborate exhortation which accompanies it, in accordance with the 8th article, 13th chapter, and 5th book of the laws, showing the religious character of the people, and how sacredly they regard the truth.

Every person who takes an oath lifts up three fingers; that is, the thumb, the forefinger, and the middle finger. By the thumb is signified, "God the Father;" by the forefinger, "God the Son;" by the middle finger, "God the Holy Ghost." The other two fingers are bent down in the hand; the larger of these signifies the soul which lies hidden in man, and the smaller the body of man, because it is little—just as the body is of small account compared with the soul. The whole hand typifies the one almighty and eternal God and Creator, who made man and all things in heaven and on the earth.

The exhortation or address on this occasion is calculated to make a solemn impression. It begins: "Whatever person is now so ungodly, corrupt, and hostile to himself as to swear a false oath, or not to keep the oath sworn, sins in such manner as if he were to say, 'If I swear falsely, then may God the Father, God the Son, and God the Holy Ghost punish me—so that God the Heavenly Father, who created me and all mankind in his image and his fatherly goodness, grace, and mercy, may not profit me; but that I, as a perverse and obstinate transgressor and sinner, may be punished eternally in hell.'" It proceeds at considerable length, and with a good deal of repetition, in the same awfully serious strain, and then concludes as follows: "Whatsoever person swears falsely, it is as if he were to say, 'If I swear falsely, then may all that I have and own in this world be cursed: cursed be my land,

field, and meadow, so that I may never enjoy any fruit or yield from them; cursed be my cattle, my beasts, my sheep, so that after this day they may never thrive or benefit me; yes, cursed may I be, and everything that I undertake.' O man! reflect on this very carefully, and mark what a dreadfully hard and severe sentence he who swears falsely pronounces upon himself. A pious Christian heart might well be alarmed and tremble when a false oath involves such consequences; when a perjured person takes himself away from God, excludes himself from all his benefactions, temporal and eternal, separates himself from the whole Christian community, and will be lost and damned, body and soul. Therefore, every Christian should keep himself from false oaths and swearing lightly, forasmuch as his soul's welfare and salvation are dear to him. May God Almighty grant this to us all, through his dear Son, our Lord Jesus Christ. Amen."

Running through the promontory are several long and interesting valleys, among them Sætersdal, where dwell a remarkable people. From the city of Christiansand, which has a population of about 12,000, a good driving-road goes a little beyond the church of Valle, about 98 miles from the city; after which a bridle-path leads 23 miles farther, to the Bykle church, whence another extends to the high-road of Thelemarken, or to Stavanger.

A peculiarity of the valleys of the most southern part of Norway is that they run from north to south. In summer the route to Sætersdal can be undertaken partly by water, by small steamers on the Kile and Bygland lakes, at the lower end of which may be found comfortable quarters for the night. The tourist exploring this valley must make up his mind to rough it. Food and accommodations are of the plainest kind, and hosts of fleas of the most voracious species prevent the thin-skinned from sleeping. The Sætersdal people have the reputation of being uncommonly dirty, but I did not find them worse than those of other mountainous districts. They are all alike in the absence of cleanliness, though there are exceptions. Often they sleep on sheepskins, without a particle of clothing on them.

The people of Sætersdal are the tallest and most powerful in Norway, and, I think, of the whole peninsula. I find a statement in one of the annual publications of the Turistförening, that the average height of the men, as taken by a gentleman at Osstad as they came from church, was five feet ten

COSTUME OF SÆTERSDAL.

inches. Their costume is very peculiar. The men wear pantaloons which extend to the armpit, and a short vest adorned with silver ornaments. The women have the shortest dresses in Norway, their dark blue-black woollen skirts, adorned at the bottoms with bright borders, reaching just below the

knees, generally showing their garters, which are made of bright woollen bands. This costume displays to great advantage their well-shaped limbs, of which they are very proud.

SÆTERSDAL WOMAN.

The beholder must not be too prudish when they bend forward in cooking or other occupation, for he must often see higher than the garters. The dresses of the women are trimmed with many silver ornaments, large peculiar brooches fas-

ten the upper part, and sometimes belts of copper, of fine workmanship, are seen around the waist.

Here, as in Thelemarken, are seen old houses with piazzas, while some have still the primitive hole in the roof for the escape of smoke, as described in Vol. II., Chapter XXV. Here is also found the stabbur (described in the same volume), a structure of peculiar shape. At Osse there are two, with carved door-posts and crosses over them, which in olden times were thought to be a protection against witches.

The inhabitants of Sætersdal in disposition and character are in many respects unlike the Norwegians. They are quarrelsome when under the influence of liquor, and use the knife freely. I know of no part of Norway where the people are more addicted to the use of ardent spirits; but I must say that wherever I have been among them I have been most kindly treated, and many are free from the vice of intemperance.

At Valle I stopped at a farm belonging to my namesake, Paul Paulsen. He could not understand how I could speak Norwegian, and insisted that, if I was not one of his countrymen, my father was. On his asking my name, I answered "Paul." "Was your father also called Paul?" When I replied in the affirmative the good fellow shouted, "Then you are Paul Paulsen, and surely you are a Norsk" (Norwegian). From Sætersdal I wended my way across the mountains to Thelemarken.

CHAPTER XXXVI.

Thelemarken.—A Fine Type of People.—Costumes.—Drawbacks of Travel.—A Room in an Old Farm.—Entrances into Thelemarken.—The Bandaks Vand.—Silver-Mines of Kongsberg.—The Farm of Bolkesjö.—A Rich Farmer.—Interesting House in Bolkesjö.—Lake Tin.—The Rjukandfoss.—Lake Silgjord.—My First Acquaintance with Silgjord.—Following Droves of Cattle.—Entertaining my Thelemarken Friends.

THELEMARKEN is one of the most characteristic provinces of Norway; it was always with pleasure that I travelled through its valleys and mingled with its inhabitants. These are tall, well-built, graceful, and intelligent-looking, reminding me of the Dalecarlians in Sweden, described in Vol. II.

The province is divided into Upper and Lower Thelemarken. In Lower Thelemarken, as in Sætersdal, the men wear pantaloons reaching nearly under their arms, but dark in color and of a different fashion, and a very short and oddly-shaped waistcoat, over which is a white jacket, still more strange in shape; the buttons are of silver, and the whole is far from pleasing. The women are dressed in dark, thick vadmal, longer than in Sætersdal, with similar bright borders at the bottoms of the skirts; the waist is peculiar, being a low bodice, with straps crossing the shoulders, over which the high-necked and long-sleeved chemise projects; to this is usually added, when out-of-doors, a short loose jacket. At church, or on other formal occasions, they wear gloves and cloth stockings, both embroidered with gaudy flowers; the head-dress consists of a silk kerchief arranged as a turban, its ends falling to the waist behind.

A great drawback in travelling in this province is the poor fare at the stations; the food is of the plainest kind, and, to one unaccustomed to it, not very appetizing. The valleys are

very irregular in every direction, and most of the means of communication are by simple parish roads, which lead to out-of-the-way places and to old farms.

Among the most characteristic styles of building on these old farms is the stabbur, where the wearing apparel and stores of the family are generally kept. In the dwelling-house one sees quaint rooms where are found the old bedsteads reached by a high step; shelves on which is kept the Bible or some sacred book; cupboards with old china, mugs, etc.; here and there biblical inscriptions, and ancient seats made of a single log.

STABBUR.

The traveller enters Thelemarken either by water by the Eidanger fjords to Skien, and thence by canal to Nordsjö, or by land from Christiania, by Drammen and Kongsberg. From the north a magnificent high-road from Odde on the Hardanger crosses to Röldal, the greatest elevation being 3500 feet above the sea; then over the Haukelid down towards Silgjord. Another route branches off to the south by the Ban-

daks Vand, upon the shores of which is the hamlet of Laurdal, where, in contrast with the wild district of Upper Thelemarken, one sees large elm, linden, aspen, ash, alder, and maple trees; the apple, cherry, and walnut—the last not common in Norway—were here loaded with fruit. In the fields they are so trimmed that their shade cannot retard the growth of the crops. The lake is 210 feet above the sea, and Laurdal is a well-protected spot.

INTERIOR OF A ROOM IN THELEMARKEN.

Bandaks Lake is 30 miles long, but hardly a mile wide; the scenery is wild, and the water of a deep olive-green; the neighboring mountains are clad with fir and pine to their tops. From this lake, through a series of other lakes, one may go to the sea, with the exception of a drive of 14 miles from Strængen to Ulefos.

One year, towards the middle of August, I found myself in Kongsberg, which has a population of 5000 souls, and is built on the shores of the Laagen, 500 feet above the level of the sea. This town is celebrated for its silver mines, the most productive of which is the Kongens Grube, which has already reached a depth of 1800 feet.

Leaving Kongsberg, a drive of twenty miles brought me to a forest on a plateau 1700 feet above the sea; descending a ravine through a dark wood, suddenly burst into sight the Bolkesjö farm, 1240 feet above the sea. I know of no farm in Norway so picturesquely situated, and none with such peculiarly superb landscape. It was nestled among fir-clad hills, whose dark color contrasted with the green meadows and fields which they surrounded. The place was partly hemmed in by barren mountains, on which were seen patches of snow. Here in a steep valley, two lakes, apparently overlapping each other, are noticed: the Bolke, of a triangular shape, 1000 feet, and a little beyond the Tol, 690 above the sea-level. Everywhere little streams trickled down the hill-side, filling the air with the sweet music of their waters.

Ole Gulliksen Bolkesjö, the owner of the place, belonged to one of those old Norwegian families who trace their genealogy for centuries. He was worth about a quarter of a million dollars, and was a true type of a bonde—working in the fields like any one of his farm hands.

The stue, or house, was in unison with the surroundings. It had an upper story; in the lower every-day room was carved in the wood 1778 (the date of the finishing of the structure), and "Soli Deo Gloria." In the upper room, two beds, like the berths of a ship, had been built along the walls; they were painted blue inside, with the exterior ornamented with highly-colored flowers. By the inscriptions in old Norwegian one could at once know the religious feelings of the builders. Over one was written, and badly spelled, "May God send seed to all sweet creatures." In another part I read, "Houses and goods are inherited from parents, but a sensible woman comes from the Lord." Somewhere else, "Trust in God:" the remainder I was unable to translate. There were other inscriptions besides. In a corner was a cabinet, with the letters O. E. S. B., under which was 1797.

About seventeen miles west of Bolkesjö, the lower end of Tin Lake is reached, upon the water of which plies a little steamer. The shores of the lake are thoroughly Norwegian, with rugged mountains covered with forests to their very tops.

Towards the northern portion, on the western shore, one enters a part of the lake called Vestfjord, running east and west; the scenery increases in beauty, the landscape reminding one of the Hardanger. Leading from this fjord is a fine narrow valley, called Vestfjorddal, on the left of which Gaustad rises 6000 feet. It is celebrated for the Rjukandfoss at its end, one of Norway's highest and most beautiful water-falls. The valley terminates abruptly, closed by gigantic walls, but the spray of the turbulent waters is seen long before the fall is reached.

The Rjukandfoss (reeking or smoking water-fall), plunges into a chasm from a height of 780 feet over a perpendicular ledge on the table-land. It is formed by the river Maan, which rises in the Mjös Vand. The sight is appalling as the eye seeks the depth below amidst the roar of the water: it is a fascinating spot.

Leaving the Rjukandfoss, I travelled towards Lake Silgjord, a charming part of Lower Thelemarken. At its upper end are the valleys of Morgedal, Flatdal, and Grundingsdal, which abound in fine mountain scenery.

One of the most fruitful regions of Lower Thelemarken is south of Lake Silgjord, in the valley where its outlet finds its way towards Nordsjö. On both sides of the stream, on the hills overlooking the flat dale in which the river flows, there are numerous fine farms, with large houses and buildings, which give a fair idea how the well-to-do farmers of Thelemarken live. This district is known under the name of Bö.

I went to Silgjord for the first time in the following manner: I had become acquainted at the sæters in Upper Thelemarken with a number of bönder, who grazed their cattle there in summer; when the season was over I came down with them from the mountains, following the horses and cattle, intending to go with them to the horse fair in Silgjord, and to the cattle show a few days after in Skien. The herds belonging to the farmers joined, till at last there were several hundred head of cattle with many horses. At dusk we would stop at special places built for the purpose, where the animals were penned for the night. In the cortege were also many carts loaded with the produce of the dairy.

THE RJUKANDFOSS.

At Silgjord I had, through the kindness of a friend in Christiania, secured a number of rooms for my friends and myself at the store of the place, which was also an inn. He had tried his best to get me quarters at some farm, but all the farmers excused themselves, being ashamed to receive a stranger in their modest dwellings. On the way down I had made some friends, and invited them to stay with me during the fair; they accepted the invitation with pleasure, and put me down as a very good stranger. When I made my appearance with my bönder friends, in their odd Thelemarken costume, the owner of the place remonstrated; he said he thought the room had been secured for gentlemen and their wives. I answered, "Never mind; they are honorable, straightforward bönder, well-known in your district." I ordered dinner for twelve. He said he could not accommodate me, that he had no food, no bread, etc.

At last I became annoyed, and told him that it was all nonsense; that a good honest farmer, even if he wore a peasant costume, was as good as anybody. Most of the men who were with me were white-headed, and belonged to the best class of bönder. The rooms had been secured for me, and I insisted on having them and on treating my friends. Finally, I said that, if he refused, I would expose him in the public print. He then relented, but with bad grace; he never gave us enough to eat, and his charges were exorbitant. This misunderstanding soon spread, and I became very popular with the bönder. Since that time I have had many a good time among my Thelemarken friends.

CHAPTER XXXVII.

Upper Thelemarken.—Mjös Vand.—Superb Trout.—A Strange Dr. Dunk.—Charms of Pedestrian Travels.—Popularity of the Remington Rifle.—Totak Vand.—Costume of Upper Thelemarken.—Old Buildings.—Raudland Church.—Legend of the Brown Horse of Furnæs.—Raudland Farm.—Berge Farm.—Primitive Courtship.

Upper Thelemarken is rich in the sombre and weird landscape of its deep valleys, and its mountains are dotted with numerous lakes. The hunter roams over its forests in search of game and wild reindeer; the angler finds in its streams and lakes trout which send joy to his heart.

A few miles from Rjukandfoss is Lake Mjös Vand. A mountain-path from the plateau above the fall passes through a grassy region, over which are scattered many sæters. Mjös Vand is 2830 feet above the sea, and has a length of 27 miles. Its shores are very irregular, its southern end dividing into two long narrow branches, while on the north it terminates in the midst of wilder scenery. A short distance from Aamotsdal Church the good road gives place to a rough one, over which, however, a cart can pass, leading to the lower end of the lake called Kromviken, a route which I have often taken. The shores in many places are covered with large tracts called *myr* (moor); these are dangerous, being covered often only with a thin coat of grassy soil not strong enough to support the weight of a man.

Here and there is a farm dating back almost to prehistoric ages. A new chapel, where service is held several times a year, and a school, stand close to the farm of Hovden. The sæters are mostly owned by the neighboring farmers, who derive a modest revenue by letting them. Many a pleasant day have I spent among the people of this lonely region.

The amusements here are few, chiefly dances at the farms.

Occasionally they have a bränvin frolic. When one of them goes to the town each farmer contributes a certain sum of money for buying the liquor, all of which when bought in town is put in one keg; the division is made at the farm. I remember once, on arriving at a house, the farmer said, "Paul, Dr. Dunk has come!" This is the name they sometimes give to the keg. Not knowing what he meant, I said, "I am very glad. Has he gone hunting in the mountains?" He perceived my mistake, but said nothing. In the evening I said, "Where is Dr. Dunk? it is strange that he has not returned." In a confidential way he replied, "The doctor is here;" and, taking me into a small room, whispered, "here he is; look at him." I looked in the direction indicated, and saw the keg; laughing, he added, "This is Dr. Dunk; when he comes to us who live in the mountains he is always welcome, for he makes our hearts merry." Then the frolic began; the farmers assembled, and did not leave the place till the keg was empty, and each had drank his share. On the morrow they had the usual violent headache, and the farmer said, "Paul, Dr. Dunk is never so nice the day after his arrival as the day he comes to us."

One of the great charms of travelling in the country is that enjoyed by the pedestrian, who, leaving the highway, follows the bridle or foot paths leading to the mountain passes, from which he obtains views of which the roads can give him no idea.

There are few lakes where trout are so abundant as in Mjös Vand. There is hardly any clear river or lake in Norway where this fish is not found. There are really only two varieties, the *Salmo eriox* and the so-called Alpine trout (*Salmo alpinus*). In certain lakes, especially in those of Upper Thelemarken, the first attains a very large size; I have seen many weighing from six to twelve pounds, and in rare cases they reach twenty pounds. Both frequent the rivers and lakes; the latter, however, being found only in the north. In September and beginning of October they ascend the rivers to spawn, and large numbers of them are caught with nets, and salted for winter use. The flavor of this fish is most agreeable, and the flesh of a rose color; the farmers often cook the roe in cream—a delicious dish.

The huntsman and fisherman must know where to go. There are lakes and rivers in the mountains which swarm with trout. I have seen hundreds, even thousands, of wild reindeer together, and much skill is required in order to approach them. One may be weeks without seeing a single one, and success depends on the direction of the wind. The deer always march against it, and with a change in its course will quickly disappear. Nothing afforded me greater pleasure than to go alone, with my Remington, a splendid light weapon, in search of these animals. This rifle is very popular among the Norwegians, who seem to prefer it to any other.

PTARMIGAN.

From Mjös Vand a bridle-path leads to Totak Lake, 2170 feet above the sea; it is about 17 miles in length, and widest at the south-easterly extremity. Its deep fjords penetrate like bays into the dark mountains, several of which rise 3000 feet above the sea; the contrast of deep-green water with the rocks produces a very striking and sombre effect. The costume of Upper Thelemarken is also less grotesque than that of the lower part of the province. The men dress in dark blue or black jacket, waistcoat with silver buttons, and pantaloons of the same woollen material. The women wear a kerchief in a peculiar way over their head, and a dark homespun skirt.

Many of the farm buildings are very old, some being occupied by the descendants of families who lived there long before the time of the plague (1350), and who were spared in that pestilence, which swept over the land like the shadow of death. Touching legends are told of that dreadful time, when the population of whole districts was destroyed.

By this plague, which desolated Europe, whole districts of

Sweden and Norway were depopulated; and there is a tradition that in the province of Vermland only one man and one woman were left. The scourge also appeared in Iceland and Greenland: as no record of the flourishing colonies of the latter is known to exist, the supposition is that the entire population was at that time destroyed.

The church of Raudland is very old. As I left its churchyard I came to a hollow which seemed peculiar. It was the spot which tradition points out as the grave of *den brune Fornæs hest* (the brown horse of Fornæs), the subject of a legend of the days of the *Sorte död* (black death), called usually by English-speaking people the "black plague." The mountaineer who was with me became very sober as he told me the story of the noble animal, as follows:

The black plague reached Norway in 1349 and 1350, visited its wildest mountain regions, and penetrated the remotest districts. In many places all the inhabitants of the hamlets and the farms perished, no one being left to tell the tale. The scourge came also to Thelemarken, and swept like an avalanche over Raudland and Mjös Vand. On the bank of the latter opposite Hovden was the farm of Fornæs, to which the famous horse belonged. At that time there was no church at Hovden, and no church-yard, and the people had to worship and be buried at Raudland. Day after day, while the pestilence raged, the horse came to the church-yard bearing the bodies of the dead; and after awhile he began to know the way so well that he needed no guidance. Soon there was no one with strength enough to follow him; but, when the sleigh had been loaded with the bodies, he would go by himself to Raudland, and, after the people in charge of the graveyard had performed the burial rites, the intelligent animal retraced his steps homeward alone. The faithful creature had no rest, for as soon as he had returned to Mjös Vand it was time to go again with others of the dead; very often he was so weary that he staggered through the deep snow, sinking into it, and hardly having strength to extricate himself. When the snow was hard, he would go and come quickly; if it was soft, he had to travel very slowly. The time finally arrived when the peo-

ple of Mjös Vand were all dead except one man. The plague attacked him; and, knowing that it was fatal, he placed the snow-shoes on the horse's feet, harnessed the animal, tied himself with a cord upon the sleigh, and then died. The horse went slowly along with the last inhabitant of Mjös Vand towards the church-yard of Raudland; but on his way, when he had reached Falkeriset, 3040 feet above the sea, the highest hill between Mjös Vand and Raudland strand, he lost one of his snow-shoes. Finding that he could go no farther, as he kept sinking deeper and deeper into the snow at every step, he gave a powerful neigh, as if to call for help. The people of Raudland hearing him, came with other snow-shoes, and he continued his way. After the body had been buried the horse entered the church-yard, went to the grave of every one he had brought from Mjös Vand, and stopped a little while before each. His work was now done; the people he had known were all buried there; nobody needed his services any more. Slowly he went away, with his head down, towards one of the hollows between the moraines, a little east of the church; and there, breaking his snow-shoes, he rolled himself into the hollow, put his head upon his breast, gave a sigh, and expired.

"This place," said the peasant, pointing to the hollow, "is still called *heste dokken* (horse hole), and *Fornœs brun* is still remembered by us; he was a noble horse, and we love to tell the story to our children as our fathers told it to us, so that his name may go down to future generations. Yes," he added, "it was a sad time for Norway; at Ödefjeld, at the other extremity of the lake, only one married woman was left."

The parsonage was at no great distance; the pastor had two other churches under his charge, one of which was that of Mjös Vand, where he held services six times a year. He was somewhat of a poet, and had published some hymns; he was frank in his manner, liberal in his views, and truly hospitable.

The Lutheran Church is the national church of Norway and Sweden, and it is only within recent times that other sects have been allowed to build houses of worship; but even to this day certain offices cannot be held except by Lutherans.

Not far from the church is the ancient farm of Raudland,

with a stabbur, said to have been built about A.D. 1000. Near the shore is the farm of Berge, embracing eight buildings—the dwelling-house being a type of Thelemarken architecture. On the left of the entrance was a room about 20 feet square, with the usual open fireplace in the corner—furnished with a large table, painted red, a wooden bench, and a few oddly-shaped chairs, each made of the trunk of a tree; the windows consisted of small panes of glass. In two of the corners of the room beds had been constructed which resembled the bunks on shipboard. These bunks were gaudily painted, and the frame made fast to the ceiling, which was not more than 8 feet high. A bright-colored sideboard, as tall as the room, and fastened to the wall, contained plates, glass, spoons, etc. Three windows, in two of which were pots of flowers, gave sufficient light. The floor was dirty, for it was only washed every Saturday, and people were continually going in and out with muddy shoes. Facing the dwelling-house was the stabbur, probably over five hundred years old; but I saw much older wooden buildings in various parts of Norway. The picture (page 419) gives a good idea of a stabbur. I ascended a steep ladder to the upper story, to which entrance was gained by the use of an enormous key; the door turned upon strange-looking hinges, and the only light came through the fanciful open wood-work of the piazza. There was an aspect of the Middle Ages in the dark room, for everything in it was old and odd; the principal objects were huge chests, upon which were written the names of the owners; each of the three daughters of Rickard, the owner of the place, had her own chest marked with her name, whose contents would form an important part of her dowry, in the shape of wearing apparel and trinkets. Upon cross-poles hung fourteen sheep-skins as white as snow; women's skirts and dresses embroidered in silver; several table-cloths, with fanciful crochet-work at each end, and blankets of bright colors from Vossevangen, were disposed about the room. There was a bed where formerly the husband and wife slept; but since the girls had grown up all had chambers in the house previously described. The room below contained on one side large grain-bins placed

closely together; also stores of mutton, salted bacon, bags of flour, and baskets containing wool, some of which had been carded. Rickard and his wife Sigrid were exceedingly hospitable; and Torbjör, Sigrid, and Ingeborg—their daughters—were models of thrift. The many pleasant days I have spent at Berge will long be remembered.

Among the ancient customs of the rural population that still prevail in many parts of the country is that of "bundling," called here *frieri*, which really means "courtship." I have occasionally witnessed it, and it has afforded me at times much amusement.

On Saturday it is usual for the parents, who wish to have a good night's rest, and do not want to be kept awake by constant knockings, to leave the doors open; for, if they are blessed with many daughters, they may be sure that there will be no end of visitors. The damsels often live far away; consequently the lovers may have to walk miles, perhaps, on very dark nights, over snow and frozen lakes, or through winding and dangerous mountain-paths, when the weather is intensely cold; but nothing seems to check their determination except a drenching rain-storm. It is generally arranged that the hour of arrival shall be after the old folks have retired.

This absence of guile in many districts can hardly be believed or conceived by a stranger. When returning tired and wet from the hunt, or some mountain excursion, to a friend's farm, I have been put to bed by some female member of the family as if I had been a child, and tucked up with the admonition to sleep quietly, with a pleasant "good-night." Early the next morning a cup of coffee is brought to you in bed, either by mother or daughter.

CHAPTER XXXVIII.

Songadal.—A Storm in the Mountains.—Lonely Horses.—Coming to a Sæter.—Mountain Wandering.—Arrival at Bærunuten.—The Approach of Winter.—From Grungedal to Haukelid Fjelds.—The Staa Lake.—Haukelid Sæter.—A Snowstorm.—Knut Björgufsen.—Havredal Farm.—Ole Havredal.—A Feast at Havredal.—On the Way to Röldal.—Welcome at Röldal.—Across to the Hardanger.

The scenery of the upper end of Lake Totak is impressive, the Raudland fjelds rising 2840 feet above its deep green water. From here the narrow Songadal, in one place entirely blocked by immense rocks, wends its way in a north-westerly direction. While roaming alone towards the Songa Lake, intending from there to reach the mountain farm of Bærunuten, I was overtaken by a fearful storm. The rain was cold, and the wind was blowing almost a gale; the mist was so thick that I could not recognize the outlines of the mountains as landmarks, and I lost my way. As I was wandering, trying to find the path, I came upon a sæter, where I found two men from Lower Thelemarken, who had charge of some cattle. The sight was most welcome, for it was getting dark. They proved to be old acquaintances. Great was their astonishment when I entered the hut; they tried their best to entertain me, put more logs on the fire, and gave me of their homely food with delight. Kittel, a bright fellow, said, jokingly, "Friend Paul, this is the Kong's hotel;" and we had a good laugh over it, for the place was very uninviting. Dirty straw on the ground was our bed, and the sheepskins were far from clean. They apologized for the poor accommodation they had to offer me, and said that, if it had not been so late, they would have taken me to a girl sæter, "which you know, Paul," they added, "is much cleaner than those belonging to men."

The next day, the weather having become fair, I bade good-

bye to my friends and continued my hunting all alone, the district being well known to me. On the way I was suddenly startled by a heavy tramping, and a group of eleven horses, which seemed overjoyed at the sight of man, came towards me gambolling and frisking; they belonged to different sæters, and had been left to browse for the summer. One day it was dark when I reached a sæter, a plain stone hut, where I could see the light of a blazing fire through the cracks of the door, and hear the sound of voices. I knocked, and said, "Won't you open the door to the stranger?" Soon the wooden bolt, which is used to prevent the cattle from getting in, was drawn, and I saw two women, one a young girl of about twenty years, and the other older. The hut was clean; a bed was perched high up, and on one side was the fireplace; on the shelves were vessels containing milk. The women in charge did not compare favorably, either in looks or tidiness, with those we had met in the Hardanger sæters. This sæter had 26 milch cows, 20 head of cattle, and 2 horses. The place was on the bank of a mountain stream—the Valasjö—which empties into the Songa Vand.

The journey northward over the Sauerflot was very pleasant, as the plateau was undulating, the ground firm underfoot, and the morasses hard on account of the dry summer. Cairns of stones several feet in height had been placed at short distances apart, almost always in sight of each other, to show the way, and the country was covered everywhere with lichen.

Not far from Songa Vand is the lonely mountain farm of Bærunuten, where I was received with great kindness by the family.

The sudden cold snaps warned me that winter in the higher regions was coming. From Bærunuten I went into Grungedal, and found myself on the superb high-road which crosses from Hardanger to Christiania, intending to traverse the Haukelid fjelds to Röldal, and thence to Odde. On the way I noticed in deep bogs large fir-trees—no doubt remains of extensive forests, where now young trees could not grow. The swamps in many parts of Norway are encroaching on the dry land.

The darkness at night in deep valleys overshadowed by mountains is so intense, before snow has fallen to cover the ground, and when the sky is cloudy, that sometimes one cannot see two steps before him; I have myself, on several occasions, after moving a few paces from a door, been unable for awhile to find it again, and felt the same sensation of bewilderment that I have experienced in a blinding snow-storm.

From Grungedal, a poor district with a few farms, the road ascends gradually to the Haukelid fjelds, skirting many lonely lakes. On the shores of the Vaagslid Vand is the comfortable farm of Botnen, and farther on Vaagslid farm. The highest lake, and the last on the route, is the Staa, 3010 feet above the sea: there ended the road which is in the course of construction; the laborers had left for their homes, as at that late season of the year work had to be suspended.

On the shores of the Staa Vand is Haukelid sæter, which is now a comfortable mountain-house, having been built by the Government for the accommodation of travellers. I reached the place just in time to escape a snow-storm, which lasted the whole of the night and part of the following morning. It was the last day of September, and the year before at the same spot I had experienced similar weather; the difficulty I had in crossing the mountains with my friends from Röldal came back vividly before me, for we had to tramp in the new-fallen snow, often sinking to our waists, and falling against the partly concealed rocks.

Friend Knut Björgufsen, who had now charge of the place, gave me a most hearty welcome: a good, honest fellow he is, and within the hospitable walls of the house the time was far from seeming long.

When the weather became fair he proposed to me to visit the farm of Havredal, on Lake Bordal, 2830 feet above the sea. I accepted at once, for Ole Ormsen, the owner, was a good friend of mine. Soon after this we started, and, after a brisk walk of four or five miles in an easterly direction, came to the place. Ole could hardly believe his eyes when he saw me. He immediately produced a bottle of spirits, of which he kept a small stock for special occasions; he drank a skål in

my honor, and welcomed me to his farm; a feast was then prepared, and it was late when we retired. To Knut and me was given the guest-room up-stairs, and we slept in very comfortable beds. Ole and Knut came to the conclusion that if I wished to cross to Röldal I must hurry, or the snow might become too deep; and both were to take me there. After another day of feasting at Haukelid sæter, and the drinking of the last two bottles of Knut's port, early the next morning, with a clear sky, we started for Röldal, where we arrived before dark.

Lake Röldal, 1200 feet above the sea, is in a deep hollow surrounded on all sides by mountains. At its northern extremity is the church, and farms are numerous on its shores. Ole and Knut found themselves at home, for, like myself, they had here a number of good friends. Hearty was the welcome given to me by my comrades, who had crossed with me the year before; the same round of feasting was here repeated at different farms—at Rabbi, Hagen, Haugen, Yuvet, and others —where I had to tell all I had done since I had left. Among my friends was old Jakob, who loved to talk about literature and travels while his son-in-law was making boots; he was always sorry when I wanted to leave, and never failed to say, "Come soon again, and have another talk."

The road from Röldal to Odde is very steep after leaving the lake, and traverses a broken, wild region, whose landscape delights the beholder; and after one of these abrupt descents Odde is reached. There I found the inner part of the Hardanger fjord frozen for two or three miles, and the steamer had to lie along-side the ice. Winter had come.

APPENDIX OF VOL. I.

GENERAL GOVERNMENT.

In Sweden the legislative power of the people is vested in the Riksdag (Diet), which is divided into two chambers, called first and second, having co-ordinate jurisdiction. Members of the first chamber are elected for nine years; in the country districts, which include all cities and towns having a population of less than 25,000 inhabitants, by the Landsting (Legislative Assembly of the province), and in the cities having a population of more than 25,000, by the Stadsfullmägtige (Town Delegates). The proportion of representation is one member for every 25,000 of the people. To be eligible to the office, the candidate must be thirty-five years of age or over, and have possessed, for three years previously, real estate valued at least 80,000 kronor, or have received for three years from capital or labor a yearly income of 4000 kronor. Even though possessed of these qualifications, if he lose any of them after election he must at once resign his office. There is no salary attached to the place.

The members of the second chamber are elected for three years. In the country each judicial district (Härad) having over 40,000 inhabitants is entitled to two members. The cities elect one for every 10,000 inhabitants. Small towns of less population are united into one constituency, sufficiently large to entitle them to representation. The election takes place either by direct vote, or by electors chosen by the voters. The right to vote belongs to all persons who own real estate of the assessed value of 1000 kronor, or who lease real estate worth 6000 kronor, or who have an income of 800 kronor from labor or capital. The candidate must be not less than twenty-five years of age. The election is supervised by select-men in the country, and by magistrates in the cities. The members receive a salary of 1200 kronor for every regular session of four months. Those who are not present at the opening of the session are fined, and none are allowed to resign without lawful reasons. The king has the right to veto laws, except those relating to taxes, appropriations, etc., where the Diet has absolute control.

In Norway the legislative power of the people is vested in the Stor-

thing. The cities electing one-third, and the country the remaining two-thirds of its members; these are chosen for three years—the duration of each Storthing.

The elections are made through electors, of whom in the cities there is one for every fifty, in the country one for every hundred voters. To have the right of voting one must be not less than twenty-five years of age, and own a taxable farm, or have leased one for at least five years, or hold a government office, or have a license as master of a trade. In the cities or hamlets one must possess real estate of the value of 1200 kronor.

To be eligible to the Storthing, the candidate must be thirty years of age, and, if an alien, must have resided for ten years in the country. No one who has been elected can decline except for good reasons. During the session they are exempted from the operations of the civil laws, except in criminal cases, and, as also in Sweden, cannot be held to answer for their utterances in the Thing. King's ministers, or persons attached to their offices, or at court, or receiving a court pension, cannot become candidates.

The Storthing assembles every year in Christiania, for a regular term of two months. If a further sitting becomes necessary, the sanction of the king is required, who may for extraordinary reasons convene it in some other place, or call an extra session, in which case it must adjourn before the next regular session.

The Storthing selects from its number one-quarter of its members, who constitute the Lagthing; the other three-quarters form the Odelsthing. Each Thing has a separate organization, and nominates its President and Secretary. The meetings are held with open doors, and the voting is done *viva voce*. Every bill must be brought up, in the first instance, in the Odelsthing, either by one of its members or by the government representative, who is one of the king's counsellors. If the bill passes, it is then sent to the Lagthing. If twice rejected, both chambers meet, and a majority of two-thirds is necessary to pass the act. The sanction of the king is required before the bill becomes a law; but his veto is merely suspensive, for if a bill passes three consecutive Storthings it becomes a law without his sanction. It was in that manner that the law abolishing titles of nobility was enacted.

LOCAL GOVERNMENT.

Sweden is divided into län. The highest executive officer in each is the governor. The next is the Kronofogde (Crown bailiff), of whom there is one in each judicial district, and his subordinates are called länsmän.

Each län is possessed of a Landsting, whose members are chosen by the voters of the towns or judicial districts. This body is composed of

at least twenty members, who receive no compensation, and are elected for two years. It has to deliberate and decide about the general affairs of the län, with regard to its internal economy, the development of agriculture and industries, communications, health, instruction, etc. It holds one regular session in each year, which lasts not longer than eight days; but can also assemble in extra session, either of its own motion or by order of the king, who moreover appoints its presiding officer. It also has the right to impose the taxes necessary for raising the amounts appropriated, and to negotiate loans; but the approval of the Crown is necessary in case of taxes running for more than five years, and in making loans for a longer time than the same period, and also in disposing of public property. To other enactments the consent of the governor is required to be given, and in case of his refusal the Landsting has the right of appeal to the Crown. The relation of the communities to the State is such that, while some of their enactments, to be valid, require the approval of the Crown, which may refuse its consent, yet the latter cannot encroach upon their rights of self-government by imposing unwelcome measures upon them.

Dependent on the State, but with a great deal of freedom of action, are also the communities within the län, composed of one or more parishes, with their separate administrations. In all parish matters, every taxpayer, with the exception of those paying the very lowest amounts, has a right to vote. The church meeting (Kyrkostämma) of the parish has charge of everything pertaining to the church and its property, public schools, salaries of pastors and teachers, etc., and is formed by all voters of the Lutheran persuasion, with the pastor as its chairman.

At this meeting there are selected for a term of four years a church and a school council. The former manages church affairs, and exercises a kind of disciplinary supervision, while the latter governs the schools. All other parish affairs devolve upon the communal meeting (Kommunalstämma), composed of all legal voters of the community, who vote in proportion to the communal taxes paid by each individual. A board of selectmen is chosen, having from three to eleven members, and constitutes the executive committee of the meeting. It has charge of the property of the parish, levies and collects taxes needed for its purposes, and makes estimates for receipts and expenses, to be submitted to the full body, which, however, can delegate its authority to a committee composed of the select-men, together with three times as many of its own number, which is especially designated for this purpose, and holds office for a term of three years. But only the entire meeting decides about the sale of real estate, imposing taxes for a longer period than five years, about elections, etc. Even the latter, however, cannot sell real estate, or negotiate loans to run for more than two years, without the sanction of the Crown. Every town constitutes a community by itself, its communal meeting be-

ing called General Town Council. But where the population exceeds 3000, the legislative functions are exercised by the Town Delegates, chosen at a General Town Council for four years, to the number of twenty to sixty, according to population. The executive administration in the town, both on its behalf and that of the State, is in the hands of the magistrates, consisting of the Aldermen and the Mayor, who is appointed by the Crown on the recommendation of the burghers, who nominate three persons from whom to make a selection as Mayor. The property is managed by a Board of Finance, selected by the delegates, or, where these do not exist, by the General Town Council.

Norway is divided into Amts, corresponding to the Swedish Län, and its highest executive officer is the Amtmand. The Amts are divided into Fogderier (Bailiwicks), in each of which there is one Foged, who is assisted by Lensmænd—generally one in every parish. In the towns the functions of the Foged are exercised by the Byfogde, who is also invested with judicial powers. The Foged collects taxes and judgments, and generally superintends the execution of the laws.

For communal affairs every parish has a Formandskab, the members of which are chosen by the voters. For important cases a triple number are added. Every Formandskab chooses its own chairman. The administration in the cities is about the same. All the chairmen within an Amt assemble once a year with the Amtmand and all the Fogders to discuss the affairs of the Amt. Appropriations, assessments, etc., are made by them. The decisions of this body are submitted to the Amtmand for approval, with right of appeal to the Crown.

ADMINISTRATION OF JUSTICE.

Justice in Sweden is administered by three different Courts.

Local Courts, composed of { Rådstugurätt (Town Court). / Häradsrätt (District Court).

High Courts (Hofrätt): there are three—one in Stockholm, another in Jönköping, and the third in Christianstad.

Supreme Court (Högsta Domstolen).

The local court in the cities is composed of the Mayor and Aldermen: in the country, of a judge and twelve jurymen (Nämndemän), the latter being elected by the real estate owners of their respective districts. Each judge has within his district one or more circuits. In the larger cities there are, besides, police courts, having jurisdiction in minor criminal offences.

Judges must be graduates of one of the Universities. They are appointed by the King on the recommendation of the High Court (Hofrätt).

They hold office for life, and in case they retire are pensioned. They cannot be dismissed without trial.

In Norway justice is administered by four different courts, three of which have jurisdiction in both civil and criminal cases. These are:

Communal Courts of Arbitration (Forligelses, Kommissioner), before which all civil cases are first brought for agreement, with the object of avoiding lawsuits. The members of this court are elected by the voters.

District Courts, each of which has one judge, in the towns called Town Judge, and in the country District Judge: these in important cases associate with them four assistant judges, appointed by the Amtmand. In Christiania there is, however, a separate City Court (Byret), with a judge and assistant judges, from whose decision appeals are taken direct to the Supreme Court.

The Superior Courts (Stifts Overretter), of which there are five, one each in Christiania, Christiansand, Bergen, Trondhjem, and Tromsö.

The Supreme Court (Höieste Ret).

The Judges are nominated by the King.

FREEDOM OF THE PRESS.

The Press enjoy the utmost freedom, being amenable to the law only for publications against public morals, against defamation of character, etc. A majority of two-thirds of the jury is necessary for conviction.

No man, either in Norway or Sweden, can now be imprisoned for debt unless it has been contracted fraudulently.

COMMUNICATIONS.

Swedish railways	4200 miles.
Norwegian " nearly	1000 "

The new roads are built by the State, while all have to be kept in repair by the land-owners, each having a certain length to maintain in good order, proportioned to the amount of land he owns.

The total length of all the Swedish common roads is	35,000 miles.
Norwegian	14,000 "
of which of King's roads, or highways, there are in Sweden	12,308 "
In Norway	4,350 "

Canals in Sweden, 28 in number; the total length is 465 miles.

In Norway there are only a few short canals.

DISEASES.

The most prevalent diseases of Scandinavia are scarlatina, typhoid fever, measles, whooping-cough, small-pox (rarely epidemic), diarrhœa, dysentery, consumption, pneumonia, and cancer. The cholera first showed itself in 1832, and has since then appeared at varying intervals more or less epidemically. Intermittent and remittent fevers are very rare. Typhoid fever is the most prevalent epidemic.

The most terrible curse of Norway is leprosy (*Elephantiasis Græcorum*). This is quite common on the west coast, from 59° to 69° latitude, but is rarely met with beyond these. Innumerable experiments and devices have been tried by the medical profession of the country, with a view of finding an effectual remedy for this scourge, but so far without avail. Little of this disease is found in Sweden; only seventy or eighty are afflicted with it, and these chiefly in the province of Helsingland. Five large hospitals have been erected for its treatment in Norway. Of these, the three largest are located at Trondhjem, Molde, and Bergen. These contain, on an average, from 2100 to 2200 patients. Nearly all the lepers are from the fishing districts.

I visited these hospitals at first with fear and trembling, for I had the popular idea that the disease is contagious. The servants of these hospitals are not lepers, and many have been in this service for years; some of the doctors have been attending the patients for long periods, and no one has ever caught it. These hospitals are fine buildings, especially that at Bergen. Physicians of experience and reputation, whose writings are known throughout Europe and America, are in constant attendance, and devote their lives to the treatment of this malady, which has engaged the attention of the Norwegian Government for years.

To a stranger unaccustomed to see this disease, a visit to the rooms where the patients are suffering in its different stages discloses a pitiful sight. In some the fingers had dropped off, in others the face and body were covered with spots; several were made blind; in some the bones seemed to have disappeared from the hands or feet, rendering them helpless; others appeared almost as white as milk. One poor fellow, who seemed to be near his end, had a book of Psalms before him.

Each room had several beds, and everything was of the utmost cleanliness. The male and female patients were kept separated by a very strict watch.

In the kitchen the cooking was done by steam; the bakery was exceedingly clean, but the worst part to me was the laundry, which suggested horrible ideas. The dining-room was pleasant, and the food was good. Some of the patients can do light work, such as making fishing-nets, etc.

Among those who have made this fearful disease their study there is great difference of opinion; some think it is hereditary. Many people, as

soon as they show signs of leprosy, are taken to the hospital, and often after a few years are sent back apparently cured; but in most cases the disease reappears, perhaps from neglect to take the medicines used as preventives. I think there is no question that it is hereditary. Like consumption, insanity, drunkenness, vice, it may be a long time before it appears; persons well advanced in life get it, and in that case the fact is generally established that one or both of their parents died of it; at other times it is discovered that it has passed over a generation. Dr. Hansen, of Bergen, in Norway, has examined the nodes in this disease, and has been able to find a minute bacillus, which is always present in sufficient numbers to account for the symptom; but he has failed as yet to discover the conditions of its life and development. At Bergen I visited the school attached to the hospital: many of the children to a stranger appeared without any of the symptoms of the disease, while others had it in various stages.

Goitre.—The proof that this disease cannot be attributed to the drinking of snow-water, as is generally believed in Switzerland, is that it is hardly known in Norway or Sweden; I never saw a case among the Lapps; the four or five I met were in sparsely settled districts, and were imbecile, and in two cases perfectly idiotic.

Cretinism and Idiocy.—Persons thus afflicted are generally deformed and puny, unable to walk or speak, and have no idea of cleanliness. I found them in rare instances in mountains and valleys, in wooded and poor districts; but always where the population was scanty, and where intermarriage had often taken place in the same family.

Insanity.—There are in Sweden nine insane asylums, with 1322 beds, and the number of patients averages 1800. In Norway there are ten insane asylums, with 986 beds, and the number of patients treated 1500. Here as in other countries the majority of cases are hereditary. In lonely or thinly populated districts, where the farms are far apart, and where social enjoyment is hardly known, there are the most insane people; many are religiously crazy.

END OF VOL. I.

MAP OF SCANDINAVIA TO ACCOMPANY "THE LAND OF THE MIDNIGHT SUN."